Interim evaluation of the "Building Climate Resilience of Vulnerable Agricultural Livelihoods in Southern Zimbabwe" project

Final report

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September 6th, 2024

Project identification table

Project title: **"Building Climate Resilience of Vulnerable Agricultural Livelihoods in Southern Zimbabwe"**
Project ID:
Start: 2020-06-09 End: 2027-06-09 Interim evaluation period: June – September 2024
Thematic Areas: • Livelihoods • Fostering Resilience for Food Security • Water Resource Management and Access to Water • Climate Information and Early Warning Systems
Area: Rural Development, Water Resources, Natural Resource Management, Agriculture/Food Security Climate-related hazards addressed: Drought/Water Scarcity, Extreme Weather Events
Key collaborators • National Government • United Nations Development Programme (UNDP)
Primary beneficiaries: 2,302,120 people (approximately 543,620 direct and 1,758,500 indirect beneficiaries)
Implementing agencies and partnering organizations • Ministry of Lands, Agriculture, Fisheries, Water and Rural Development • Responsible Parties: Department of Irrigation, Meteorological Services Department, Zimbabwe National Water Authority, Department of Agricultural, Technical and Extension Services, Department of Mechanization, Department of Research and Specialist Services
Funding Source Green Climate Fund
Financing amount US$26,574,567 **Co-financing total** US$$20,038,820 (Government of Zimbabwe), US$$1,205,000 (UNDP)

Acknowledgements

We would like to express our deepest gratitude to everyone who contributed to this evaluation. We are thankful for the invaluable support and guidance provided by the PMU throughout the process. Special thanks are due to the various GoZ ministries and departments whose insights and expertise were crucial in shaping this report. Lastly, we appreciate the contributions of the project owners - the communities - who generously shared their experiences and perspectives. Thank you all for your unwavering support and commitment to this noble initiative.

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List of acronyms/abbreviations

ACWA	Addressing Climate Vulnerability in the Water Sector Project
AEO	Agricultural Extension Officer
AGRITEX	Agricultural Technical and Extension Services
CBA	Cost-Benefit Analysis
CBO	Community-Based Organization
CGIAR	Consultative Group on International Agricultural Research
CRWH	Community Rainwater Harvesting
CSO	Civil Society Organization
CUT	Chinhoyi University of Technology
DFAT	Department of Foreign Affairs and Trade (Australia)
DOI	Department of Irrigation
DR&SS	Department of Research and Specialist Services
DRM	Disaster Risk Management
EMA	Environmental Management Agency
ESMP	Environmental and Social Management Plan
EU	European Union
EWS	Early Warning System
FAO	Food and Agriculture Organization
FFS	Farmer Field Schools
FSC	Food Security Cluster
GCF	Green Climate Fund
GIS	Geographic Information System
GoZ	Government of Zimbabwe
GRM	Grievance Redress Mechanism
GZU	Great Zimbabwe University
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IMC	Irrigation Management Committee
ITK	Indigenous Technical Knowledge
IWRM	Integrated Water Resources Management
KPI	Key Performance Indicator
LDCF	Least Developed Countries Fund
LFA	Logical Framework Approach
M&E	Monitoring and Evaluation
MLAWFRD	Ministry of Lands, Agriculture, Water, Fisheries and Rural Development
MECW,	Ministry of Environment, Climate, and Wildlife
MoFEDIP	Ministry of Finance,Economic Development and Investment Promotion
MoHCC	Ministry of Health and Child Care
MRI	Matopos Research Institute
MSD	Meteorological Services Department
MSU	Midlands State University
NCCRS	National Climate Change Response Strategy
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NTWG	National Technical Working Group
OCHA	Office for the Coordination of Humanitarian Affairs
PMU	Project Management Unit
PPP	Public-Private Partnership
PS	Permanent Secretary
RCT	Randomized Controlled Trial
RDC	Rural District Council
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SLM	Sustainable Land Management
SME	Small and Medium-sized Enterprises
SMS	Short Message Service
SPSS	Statistical Package for the Social Sciences
SWOT	Strengths, Weaknesses, Opportunities, Threats
ToC	Theory of Change
TOT	Training of Trainers
TRAC	Target for Resource Assignment from the Core
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value Added Tax
VSLGs	Village Savings and Lending Groups
WFP	World Food Programme
WUA	Water User Association
ZCFU	Zimbabwe Commercial Farmers Union
ZINWA	Zimbabwe National Water Authority

Project Information Table

1. Executive Summary

Project Description

The project, funded by the Green Climate Fund (GCF) with co-financing from the Government of Zimbabwe (GoZ) and the United Nations Development Programme (UNDP), aims to build resilience against the impacts of climate change for vulnerable communities in southern Zimbabwe. The primary objective is to strengthen the resilience of agricultural livelihoods, particularly for women, by addressing water scarcity and enhancing food and water security. The project targets smallholder farmers in drought-prone regions, focusing on revitalizing irrigation schemes, constructing new schemes, promoting climate-smart agricultural technologies and practices, and improving access to climate information.

Key strategies include the rehabilitation and climate-proofing of irrigation systems, construction of new climate-proofed schemes, climate-resilient agriculture on dry lands through farmer field schools and effective use of climate information (PICSA), the introduction of drought-tolerant crops and resilient livestock breeds, and the establishment of community-based governance structures for sustainable water and land management. Additionally, the project enhances market access for climate-resilient crops through localized innovation platforms, crowding in of private sector players for input and output market interventions and disseminates actionable climate information via improved hydro-meteorological networks and mobile platforms.

The project started in 2020 and is planned to conclude in 2027. The total project budget is $47,818,387. Of this amount, GCF contributes $26,574,567. GoZ committed $20,038,820 ($14,247,800 in cash and $5,791,020 in-kind). UNDP's contribution is $1,205,000, primarily for project management-related costs.

Project Progress Summary

As of the interim evaluation, the climate resilience project in southern Zimbabwe has demonstrated significant progress in its multifaceted approach to addressing climate change impacts on vulnerable smallholder farmers, especially women. Supported by the Green Climate Fund (GCF), the Government of Zimbabwe (GoZ), and the United Nations Development Programme (UNDP), the project aims to strengthen agricultural livelihoods by enhancing water and food security, improving adaptive capacity, and reducing exposure to climate risks.

A total of 1,120,996 people (529,685 males and 591,311 females) have benefited from the project at the aggregate level. This represents approximately 29% of the total population in the three targeted provinces. Specific details about the interventions can be found in Tables 4 and 5. Civil works have been completed in seven out of the planned 21 irrigation schemes, which cover 568 hectares. Affordability analyses indicate that the project will be able to restore 11 and develop six irrigation schemes out of the planned 21. At the time of the evaluation, none of the irrigation schemes were in production, but land use is expected to commence soon. One of the project's notable achievements is its inclusive and participatory approach, which has been instrumental in ensuring stakeholder engagement and community ownership. From the outset, the project involved a diverse range of stakeholders, including national and local government entities, research institutions, private sector actors, and local communities. This collaborative effort has fostered a sense of commitment among all parties involved, ensuring that the project addresses the specific needs and priorities of the target communities. The high level of community engagement, particularly the involvement of women and marginalized groups, has been a critical factor in the project's success.

Significant investments in capacity building and empowerment have been another key area of progress. The project has invested significantly in the capacity building of GoZ departmental (implementing partner) staff, including AGRITEX, DOI, MSD, and DR&SS, at national and sub-national levels. The project has provided extensive technical training to farmers, including women and youth, enhancing their skills in climate-smart agricultural practices, irrigation management, and financial literacy using a

cascade approach. A total of 6,900 lead and 62,770 follower farmers received training in Climate-Smart Agriculture (CSA) at Farmer Field Schools (FFS). They also accessed climate and weather advisories, as well as agricultural inputs and related technologies. Additionally, 4,963 households benefited from Village Savings and Lending as part of women's economic empowerment (1,147 male and 3,816 female). The project also provided training to 1,474 members of the irrigation management committees, including 627 females and 847 males. For more details, please refer to Tables 4 and 5. The introduction of village savings and lending schemes has economically empowered women, enabling them to invest in their farms and businesses. Additionally, the establishment of community-based irrigation management committees and grievance-handling mechanisms has strengthened local governance and accountability.

The project has also made strides in adopting innovative approaches and technologies. The introduction of drought-tolerant crops, resilient livestock breeds, participatory varietal selection processes, and modern irrigation techniques has significantly improved agricultural productivity and resilience. Investments in state-of-the-art laboratory infrastructure and the dissemination of climate information through mobile platforms have enhanced research capacity and timely decision-making. These innovations have equipped farmers with the tools and knowledge needed to cope with climate variability and improve their agricultural practices.

Strong support and collaboration with various government departments and institutions have facilitated effective project implementation. The alignment with national climate policies and strategies, the establishment of clear roles and responsibilities, and regular coordination mechanisms have been crucial in driving the project's progress. The Government of Zimbabwe's financial and in-kind contributions, despite some delays, underscore its commitment to the project's goals and have been pivotal in achieving the project's milestones.

The project's impact on target communities has been substantial. Since the 2020/21 season, farmers, farmers reported increased agricultural yields from small grans, enhanced food security, and improved livelihoods across the project sites. The El-nino effect was particularly challenging for most farmers during the 2023/24 agricultural season culminating in poor crop harvests in the targeted drylands. The VSLGs have provided access to cash and credit for women, a much-needed relief. The platform has served as a valuable coping strategy during times of stress, more so in the aftermath of a poor 2023/24 agricultural season. Community-led initiatives, such as land clearing, resource mobilization for inputs, and the formation of local governance structures, highlight the project's success in fostering self-reliance and resilience. Moreover, the reported reduction in gender-based violence due to economic empowerment initiatives is a noteworthy social impact.

Despite these achievements, the project has faced several challenges, primarily related to delays and resource constraints exacerbated by the COVID-19 pandemic. COVID-19-related disruptions in supply chains, limitations on field activities, and financial disbursement delays have impacted the project timeline. The delayed recruitment of key staff members negatively impacted the timely project take-off. Due to the time lag between project design and implementation, the PMU had to conduct detailed site-specific feasibility and design studies. Financially, the project commenced with a $6 million budget deficit for sub-activity 1.1.1 under Activity 1.1. Additionally, the project conceptualization and design team paid minimal attention to sustainability, particularly the social (including behavioural) and institutional considerations, such as governance structures like IMCs. The push to evolve all schemes into companies is complex, necessitating a rethink of the implementation modalities. Furthermore, inefficiencies in procurement processes and coordination between UNDP and GoZ entities have caused delays in critical activities, especially for the targeted irrigation schemes.

Interim Evaluation Ratings & Achievement Summary Table

Table 1 provides a rating of the project achievements at the time of this midterm evaluation.

Table 1: Interim evaluation ratings and achievement summary

Project Strategy	**Moderately Satisfactory**	The project has developed a theory of change that requires minor adjustments at the mid-term point. While the objectives and results are clearly defined, some of the performance indicators and their associated targets need further refinement. At mid-term, the overall strategy is proving solid, although the component related to the irrigation schemes is lagging behind.
Progress Towards Results	Objective Achievement Rating: **Moderately Satisfactory**	The project successfully reached the target number of beneficiaries through the dissemination of improved agricultural technologies, including farmers' use of climate information provided by extension officers and other agricultural experts. However, at the time of this evaluation, 21 irrigation schemes were not yet operational: water was not flowing, and production had not commenced at the designated sites. As a result, the project had not met its objectives related to the area of land under irrigation, the number of people with year-round water access, and the increase in productivity on those sites.
	Outcome 1 Achievement Rating: 5-**Satisfactory**	The project has made significant progress in increasing the resilience of smallholder livelihoods by enhancing agricultural productivity through climate-smart practices and irrigation management. The introduction of drought-tolerant crops and resilient livestock breeds, coupled with extensive training programs, has improved farmers' adaptive capacities. Community engagement and the establishment of irrigation management committees have further strengthened local governance and ownership of the initiatives. However, some challenges such as delays in financial disbursements and the need for continuous capacity building prevent this outcome from being rated as highly satisfactory. These delays have impacted the timely implementation of critical activities, highlighting the need for improved coordination and resource mobilization.
	Outcome 2 Achievement Rating: 4-**Moderately satisfactory**	Progress in enhancing water and food security has been moderately satisfactory. The need to conduct detailed site-specific feasibility and design studies and catchment-specific ESMPs delayed progress towards fully functional climate-proofed irrigation schemes. This has been further compounded by the $6 million budget deficit at project inception. The project has since reduced the budget deficit to $3 million through adaptive management. The COVID-19 pandemic exacerbated these issues, causing disruptions in supply chains and delaying the installation of critical infrastructure. Delays in financial disbursements and in-kind contributions, such as land clearing by GoZ, are hampering production in schemes where the civil works have been completed. Addressing these constraints could quickly unlock new sources of value, manifesting as water and food security, for the communities.
	Outcome 3 Achievement Rating: 5-**Satisfactory**	The project has made satisfactory progress in increasing the generation and use of climate information in decision-making. The enhancement of hydro-meteorological stations and the dissemination of climate information through mobile platforms have significantly improved farmers' access to timely and accurate climate data. This has enabled farmers to make informed decisions and better manage climate risks. The participatory approach involving local

1 Ratings for Objective/Outcome Achievement and Project Implementation & Adaptive Management: 6 = Highly Satisfactory (HS): exceeds expectations and/or no shortcomings; 5 = Satisfactory (S): meets expectations and/or no or minor shortcomings; 4 = Moderately Satisfactory (MS): more or less meets expectations and/or some shortcomings; 3 = Moderately Unsatisfactory (MU): somewhat below expectations and/or significant shortcomings; 2 = Unsatisfactory (U): substantially below expectations and/or major shortcomings; 1 = Highly Unsatisfactory (HU): severe shortcomings, Unable to Assess (U/A): available information does not allow an assessment

Ratings for Sustainability: 4 = Likely (L): negligible risks to sustainability; 3 = Moderately Likely (ML): moderate risks to sustainability; 2 = Moderately Unlikely (MU): significant risks to sustainability; 1 = Unlikely (U): severe risks to sustainability; Unable to Assess (U/A): Unable to assess the expected incidence and magnitude of risks to sustainability

		communities and stakeholders has also contributed to the successful adoption of climate information services.
Project Implementation & Adaptive Management	**5- Satisfactory**	Implementation of most of the components leads to efficient and effective project implementation and adaptive management except for only a few that are subject to remedial action.
Sustainability	**4- Likely**	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review (see Section 4.5 for more details on project sustainability).

Concise summary of conclusions

The interim evaluation of the climate resilience project in rural Zimbabwe highlights a multifaceted approach aimed at enhancing climate adaptation among vulnerable communities, particularly women. Supported by the Green Climate Fund (GCF), the Government of Zimbabwe (GoZ), and the United Nations Development Programme (UNDP), the project has shown significant achievements and valuable lessons for future initiatives.

Key strengths include the project's inclusive and participatory approach, which fostered strong stakeholder engagement and community ownership. Substantial investments in capacity building have empowered farmers, especially women and youth, with skills in climate-smart agriculture, irrigation management, and financial literacy. Community-based irrigation management committees and grievance-handling mechanisms have strengthened local governance.

Innovative approaches, such as drought-tolerant crops, resilient livestock breeds, and modern irrigation techniques, have significantly improved agricultural productivity and resilience. Strong government support and alignment with national climate policies facilitated effective implementation.

The project has positively impacted target communities by increasing agricultural yields, enhancing food security, and improving livelihoods. Community-led initiatives and women's economic empowerment through village savings and lending schemes have fostered self-reliance and reduced gender-based violence.

However, challenges remain, primarily related to delays and resource constraints exacerbated by the COVID-19 pandemic. Inefficiencies in procurement processes, coordination between UNDP and GoZ entities, and socio-cultural barriers need to be addressed. Environmental risks, such as water resource depletion and soil erosion, require ongoing monitoring and adaptive management.

Strengthening data management and quality assurance mechanisms is crucial for effective monitoring and evaluation. Enhancing the capacity of implementing partners in data management will support evidence-based decision-making and accountability.

Recommendations summary table

The following recommendations are made to improve the project's performance.

Table 2: Recommendations summary table

Recommendation	Responsible Institution	Priority
Strengthening Capacity Building: Implement ongoing training for farmers on advanced irrigation operation and maintenance techniques, climate-smart agriculture, and effective use of climate information.	Project Management Unit (PMU), AGRITEX/DoI	High
Enhancing Extension Services: Strengthen agricultural extension services to provide regular support and advice to farmers.	GoZ	Medium

Enhancing Community and Institutional Engagement: Support the formation and strengthening of community-led governance for managing and maintaining irrigation systems.	PMU, Local Communities	Medium
Fostering Research Collaborations: Continue fostering collaborations between research institutions, innovation platforms, and farming communities to drive ongoing agricultural innovation.	PMU, Research Institutions	Medium
Ensuring Sustainable Water Resource Management: Beyond the high-water use efficiency technologies, the project should aggressively promote and implement sustainable inland water management practices, including monitoring water usage and adoption of water-saving technologies once irrigation schemes commence.	PMU, ZINWA, AGRITEX	High
Establishing Robust Feedback Mechanisms: Establish feedback mechanisms to gather farmer inputs on new approaches and services, making necessary improvements.	PMU, AGRITEX	Medium
Securing Additional Funding and Resources: Secure funding and resources from government, private sector, and international donors to fund the remaining irrigation schemes and scale successful interventions.	PMU, GoZ, Private Sector, Donors	High
Improving Monitoring and Evaluation Systems: Improve the project M&E system, including embedded data quality and verification exercises, and ensure implementing partners have indicator reference sheets.	PMU, M&E Officers, Implementing Partners	Medium
Optimizing Resource Disbursements and Procurement: Consider opportunities to optimize resource disbursements, procurement, and budget processes between the PMU, GoZ, and UNDP Country Office.	PMU, GoZ, GCF	High

2. Introduction

Purpose of the Interim Evaluation and objectives

This mid-term evaluation covers the project's performance from its launch in 2020 to July 2024. The evaluation will use UNDP/GCF predefined criteria to fully explore project performance in all key project dimensions that are relevant at mid-term, including relevance, effectiveness, efficiency, and sustainability potential. This evaluation exercise will assess the state of implementation of activities, the results achieved by the project since its launch, and its performance against the major evaluation criteria. This evaluation is in line with the 2023 GCF Evaluation Operational Procedures and Guidelines for Accredited Entity-led Evaluations. The evaluation seeks to identify difficulties and define corrective measures to ensure that a project is on track to achieve maximum results by the time it is completed.

The evaluation will also identify key lessons learned from implementation to ensure that project performance is maintained or improved and that all pre-established objectives and results are achieved within the project cycle.

Specifically, the interim will review the project's strategy and assess its sustainability risks. The specific objectives of the IE are detailed below:

1. Implementation and adaptive management: This aims to identify challenges and propose additional measures to support more efficient implementation. It includes management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications.
2. Sustainability risks: This involves assessing the likelihood of continued benefits after the project ends. At the interim evaluation stage, the IE will evaluate the risks that may affect the continuation of project outcomes. It will validate the risks identified in the project document, annual project reports, and the ATLAS and QUANTUM risk management module, and assess whether the risk ratings are appropriate and current.
3. Relevance, effectiveness, and efficiency: This entails assessing the appropriateness of the selection, implementation, and achievement of the Financial and Administrative Arrangements (FAA) and the expected results (outputs, outcomes, and impacts).
4. Value for money: This assesses economy (cost for the relevant level of quality), efficiency (value of outputs viz. the total cost and quality of inputs), effectiveness (level of achievement of desired outputs and outcomes), and equity (distribution of benefits across levels of implementation).
5. Coherence in climate finance delivery with other multilateral entities: This examines how Green Climate Fund (GCF) financing is an additional resource that can complement other investments, mitigate risks, and attract further climate investments.
6. Gender equity: This assesses the integration of a gender lens in appreciating the impacts of climate change, the role of behavioral changes and gender in driving the desired paradigm shift, and the contribution of women, men, boys, and girls in addressing climate change challenges, both as agents and in terms of accountability and decision-making.
7. Country Ownership: This objective assesses how well the GCF investment aligns with the country's needs and priorities and evaluates the roles that the country plays in ensuring the sustenance of the initiative. The IE must unpack opportunities and threats to the sustenance of the initiative beyond the current funding arrangement.
8. Innovativeness in Results: This objective focuses on identifying innovations such as proof of concept, multiplier effects, new finance models, and technologies. It also assesses the potential for project interventions to lead to a paradigm shift towards low-emission and climate-resilient development pathways.
9. Replication and Scalability: This objective evaluates the potential for scaling up activities within and beyond the current project sites.
10. Unexpected Results: This objective aims to identify both positive and negative outcomes and the learnings that can be used to inform future implementation and investment decision-making by all involved parties (government, UNDP, GCF, and other actors).

The mid-term review will assess the progress made towards achieving the project's objectives and outcomes, as set out in the Project Document, and measure the early signs of the project's success or failure, to define the changes that need to be made to put the project back on track towards achieving its intended results.

Scope & Methodology: principles of design and execution of the Interim Evaluation, Interim Evaluation approach and data collection methods, limitations

The mid-term evaluation of this project adopted a mixed-method approach. Qualitative data were collected through interviews with stakeholders at both national and sub-national levels, using structured interview guides (attached). These interviews allowed for in-depth insights but are subject to limitations such as potential bias in stakeholder responses, recall bias, and social desirability bias. Additionally, since the interviews were limited to a specific set of stakeholders, there may be gaps in representation, particularly from marginalized or less accessible groups.

Quantitative data were sourced from secondary data in the project's monitoring and evaluation (M&E) system, reports submitted, and documents produced by the project and other climate change actors in Zimbabwe. A key limitation of relying on secondary data is the potential for data inconsistencies, incomplete records, or misaligned reporting periods. To mitigate this, the evaluation team cross-referenced the secondary data with primary sources and field interviews for validation.

Data triangulation was performed by comparing qualitative interview findings, quantitative data, and bibliographic research results. However, while triangulation improves the robustness of findings, it does not eliminate the risk of data gaps or biases due to the availability and quality of secondary sources. Efforts were made to ensure data quality through regular consultations with data providers, peer reviews of collected information, and adherence to ethical standards in data collection and reporting.

Ensuring integrity and quality assurance

The interim evaluation adhered to rigorous methods designed to avoid external influence and bias at every stage of the process. This was achieved through a combination of independent design development, unbiased data collection techniques, and objective analysis.

The evaluation terms of reference were aligned with international best practices and ethical standards, ensuring that the scope and methodology were clearly defined before any stakeholder engagement. The IE team designed the evaluation approach independently, without interference from key stakeholders, including UNDP and MLAFWRD. The evaluation followed established ethical guidelines to safeguard the credibility and independence of the process. The team remained accountable to these principles, ensuring that findings and recommendations were based solely on the evidence collected during the evaluation.

Data collection instruments were designed and deployed by the evaluators to ensure that no biases were introduced by project implementers. This independent design process helped minimize the potential for stakeholder influence over the evaluation's objectives and scope. Interviews were conducted in neutral, private settings, where respondents could speak freely without fear of reprisal or influence from project implementers. Interview questions were designed to be neutral, avoiding leading or biased language. The IE team interacted with myriad beneficiaries selected purposively and randomly as dictated by circumstances.

In analyzing the project’s performance, the evaluation team used predefined benchmarks (e.g., the robot system) to objectively assess project outcomes. This ensured that conclusions were drawn based on empirical evidence rather than subjective judgment. The evaluators independently analyzed and interpreted the data, and while key stakeholders were consulted to provide context, they did not influence the final analysis or recommendations. Furthermore, the international and national consultants conducted an independent, internal QA process. This included cross-checking data sources, triangulating findings, and ensuring consistency between the qualitative and quantitative analyses. The evaluation team worked independently from the UNDP and MLAFWRD project teams during these steps.

Internal peer reviews were conducted within the evaluation team to check for consistency and objectivity in the interpretation of data. Each evaluator independently reviewed the data before collectively discussing and agreeing on the conclusions. Conclusions were cross-validated with data from multiple sources, including project documents, beneficiary interviews, and quantitative data, ensuring that the

results were robust and defensible. The recommendations presented in the evaluation report were derived independently by the evaluation team, based solely on the evidence collected. While stakeholder perspectives were considered, the recommendations were developed to address the findings of the evaluation without direct influence from project implementers or funders.To enhance the evaluation's credibility and accuracy, the report was reviewed by UNDP and the Government of Zimbabwe. The IE team met twice with the PMU to clarify emerging issues from the data analysis and seek clarity. To ensure transparency, the IE team documented the steps taken in the QA process, please refer to the Audit Trail document.

In future evaluations, the IE recommend incorporating a formal, third-party QA process to independently validate evaluation findings. This could involve engaging an external evaluation entity at multiple stages of the process, such as during data collection, analysis, and report drafting, to further strengthen the rigor and transparency of the evaluation process.

Structure of the Interim Evaluation report

The Report provides an initial overview of the project description and background context, including details on the: i) development context; ii) problems that the project is addressing, threats and barriers targeted; iii) project description and strategy; iv) project implementation arrangements; v) project timing and milestones; and vi) main stakeholders. This is followed by a description of the findings of the IE. The findings section covers the areas of project strategy, relevance, efficiency and effectiveness, progress towards results, project implementation and adaptive management, sustainability, country ownership, innovativeness in results areas, unexpected results, replicability and scalability, and gender equity. The report culminates in sets of detailed conclusions, recommendations, lessons learned, and recommendations. Supporting the body of the IE report is a set of annexes related to the IE process.

3. Project Description and Background Context

Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope

Environmental Context

Zimbabwe, a landlocked country in southern Africa, faces significant environmental challenges exacerbated by climate change. The country experiences frequent droughts and erratic rainfall patterns, leading to severe water scarcity and reduced agricultural productivity. According to the Zimbabwe National Climate Change Response Strategy (2014), the frequency and intensity of extreme weather events have increased over the past few decades, affecting both rural and urban populations.

The country's average annual rainfall varies significantly, with the eastern highlands receiving over 1,000 mm, while the southwestern regions receive less than 450 mm. This disparity in rainfall distribution contributes to regional variations in agricultural productivity and water availability. The Environmental Management Agency (EMA) of Zimbabwe reports that over 70% of the population relies on rain-fed agriculture, making them highly vulnerable to climate variability and change.

Deforestation, land degradation, and soil erosion are critical environmental issues. The Food and Agriculture Organization (FAO) estimates that Zimbabwe loses approximately 327,000 hectares of forest cover annually due to agricultural expansion, wood fuel extraction, and infrastructure development. These practices exacerbate soil erosion, reducing land productivity and contributing to the siltation of water bodies.

Climate change projections for Zimbabwe indicate a rise in average temperatures by 2°C by 2050, with a potential decline in annual rainfall by up to 10%. These changes will likely increase the frequency of droughts, impacting water resources, agriculture, and biodiversity. The Intergovernmental Panel on Climate Change (IPCC) highlights that these climatic shifts will necessitate adaptive measures to safeguard food security and livelihoods, particularly for smallholder farmers.

Socio-Economic Context

Zimbabwe's socio-economic landscape is characterized by high poverty levels, economic instability, and significant reliance on agriculture. According to the Zimbabwe National Statistics Agency (ZIMSTAT), approximately 70% of the population lives in rural areas, with agriculture being the primary source of livelihood. The sector contributes about 17% to the Gross Domestic Product (GDP) and employs over 60% of the labour force.

Poverty remains widespread, with 38.3% of the population living below the national poverty line in 2019, as reported by the World Bank. Rural areas are disproportionately affected, with poverty rates exceeding 50% in some regions. Smallholder farmers, who constitute the majority of the rural population, are particularly vulnerable due to limited access to resources, technology, and markets.

The agricultural sector faces several challenges, including low productivity, inadequate infrastructure, and limited access to finance and extension services. The average maize yield, a staple crop, is approximately 0.8 tons per hectare, significantly lower than the global average of 5.5 tons per hectare (FAO). This low productivity is attributed to poor soil fertility, erratic rainfall, and limited use of improved farming practices and inputs.

Gender disparities further complicate the socio-economic context. Women constitute 70% of the rural workforce and are heavily involved in agricultural activities. However, they often have limited access to land, credit, and agricultural extension services compared to their male counterparts. The Zimbabwe Gender Commission (ZGC) emphasizes the need for gender-sensitive policies and programs to enhance women's participation in and benefits from agricultural activities.

Institutional Context

Zimbabwe's institutional framework for climate resilience and agricultural development involves multiple stakeholders, including government ministries, research institutions, non-governmental organizations (NGOs), and international development partners. Key institutions include the Ministry of Lands, Agriculture, Water, Fisheries, and Rural Development; the Ministry of Environment, Climate, Tourism, and Hospitality Industry; and the Zimbabwe National Water Authority (ZINWA).

The Ministry of Lands, Agriculture, Water, Fisheries, and Rural Development plays a crucial role in formulating and implementing agricultural policies, providing extension services, and supporting smallholder farmers. The Ministry's extension services, primarily delivered through AGRITEX, are vital for disseminating climate-smart agricultural practices and technologies.

The Ministry of Environment, Climate, Tourism, and Hospitality Industry oversees environmental protection, climate change mitigation, and adaptation initiatives. The Ministry's Climate Change Management Department coordinates the implementation of the National Climate Change Response Strategy, which outlines measures to enhance climate resilience across various sectors.

Research institutions such as the University of Zimbabwe and the Department of Research and Specialist Services (DR&SS) conduct critical research on climate change impacts, adaptation strategies, and agricultural innovations. These institutions collaborate with international organizations like the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and the International Maize and Wheat Improvement Center (CIMMYT) to develop and promote climate-resilient agricultural practices.

NGOs and civil society organizations (CSOs) play a significant role in community mobilization, capacity building, and advocacy for climate resilience and sustainable development. Organizations such as Practical Action, CARE International, and the Zimbabwe Farmers Union (ZFU) work closely with communities to implement climate adaptation projects, enhance food security, and promote sustainable livelihoods.

Policy Context

Zimbabwe's policy framework for climate resilience and agricultural development is guided by several national and international strategies and commitments. The National Climate Change Response Strategy (2014) provides a comprehensive framework for addressing climate change impacts and enhancing adaptive capacity. The strategy emphasizes the integration of climate change considerations into national development plans, promoting climate-smart agriculture, and strengthening institutional capacities.

The Nationally Determined Contributions (NDCs) under the Paris Agreement outline Zimbabwe's commitments to reduce greenhouse gas emissions and enhance resilience to climate change. The NDCs prioritize adaptation measures in agriculture, water, and energy sectors, including the promotion of climate-resilient crop varieties, efficient water use technologies, and renewable energy sources.

The Zimbabwe Agriculture Investment Plan (ZAIP) 2017-2021 aims to transform the agricultural sector into a more productive, competitive, and sustainable industry. The plan focuses on improving agricultural productivity, enhancing market access, and promoting climate-smart agriculture. It also emphasizes the importance of gender equality and youth empowerment in achieving sustainable agricultural development.

The country's water management policies are guided by the Water Act (1998) and the Zimbabwe National Water Authority Act (1998). These acts mandate the sustainable management and utilization of water resources, ensuring equitable access and preventing water pollution. The establishment of catchment councils under the Water Act facilitates participatory water management, involving local communities in decision-making processes.

Internationally, Zimbabwe is a signatory to several conventions and agreements related to climate change and sustainable development. These include the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the United Nations Convention to Combat Desertification (UNCCD). These commitments reinforce the country's efforts to address environmental challenges and promote sustainable development.

Problems that the project sought to address threats and barriers targeted

Zimbabwe faces severe environmental challenges, including climate change and land degradation, which directly threaten agricultural livelihoods. The country experiences frequent droughts, erratic rainfall patterns, and increasing temperatures. According to the Zimbabwe National Climate Change Response Strategy (2014), the frequency and intensity of extreme weather events have increased, leading to prolonged dry spells and occasional floods. These climatic changes reduce agricultural productivity, exacerbate water scarcity, and increase the vulnerability of rural communities.

Land degradation is another critical issue affecting Zimbabwe's agricultural sector. Over-reliance on traditional farming methods, deforestation for agricultural expansion, and poor land management practices have led to significant soil erosion and loss of soil fertility. The Food and Agriculture Organization (FAO) estimates that Zimbabwe loses approximately 327,000 hectares of forest cover annually, contributing to reduced agricultural yields and increased susceptibility to climatic shocks.

Water scarcity, worsened by climate change, poses a significant threat to agricultural productivity and food security. The average annual rainfall in Zimbabwe varies greatly, with some regions receiving less than 450 mm, far below the requirement for sustainable rain-fed agriculture. The erratic rainfall patterns further complicate water availability, making it difficult for farmers to plan and manage their crops effectively.

Socio-Economic Vulnerabilities

The socio-economic landscape in Zimbabwe is characterized by high poverty levels, economic instability, and a heavy reliance on agriculture for livelihoods. Approximately 70% of the population lives in rural areas, with agriculture being the primary source of income and employment. The sector contributes about 17% to the Gross Domestic Product (GDP) and employs over 60% of the labor force (Zimbabwe National Statistics Agency, ZIMSTAT).

Poverty remains widespread, particularly in rural areas, where over 50% of the population lives below the national poverty line. Smallholder farmers, who constitute the majority of the rural population, are particularly vulnerable due to limited access to resources, technology, and markets. The average maize yield, a staple crop, is approximately 0.8 tons per hectare, significantly lower than the global average of 5.5 tons per hectare (FAO). This low productivity is attributed to poor soil fertility, erratic rainfall, and limited use of improved farming practices and inputs.

Gender disparities further complicate the socio-economic context. Women, who constitute 70% of the rural workforce, play a critical role in agricultural activities. However, they often have limited access to land, credit, and agricultural extension services compared to their male counterparts. The Zimbabwe Gender Commission (ZGC) highlights the need for gender-sensitive policies and programs to enhance women's participation in and benefits from agricultural activities.

Institutional and Policy Gaps

Zimbabwe's institutional framework for climate resilience and agricultural development involves multiple stakeholders, including government ministries, research institutions, non-governmental organizations (NGOs), and international development partners. However, coordination among these entities is often weak, leading to fragmented efforts and duplication of resources. Key institutions, such as the Ministry of Lands, Agriculture, Water, Fisheries, and Rural Development, and the Ministry of

Environment, Climate, Tourism, and Hospitality Industry, play crucial roles but face challenges in terms of capacity, resources, and effective implementation of policies.

The Ministry of Lands, Agriculture, Water, Fisheries, and Rural Development is responsible for formulating and implementing agricultural policies, providing extension services, and supporting smallholder farmers. However, the extension services are often under-resourced and cannot reach all farmers effectively. This limits the dissemination of climate-smart agricultural practices and technologies that are crucial for enhancing resilience.

The Ministry of Environment, Climate, Tourism, and Hospitality Industry oversees environmental protection, climate change mitigation, and adaptation initiatives. The Ministry's Climate Change Management Department coordinates the implementation of the National Climate Change Response Strategy, which outlines measures to enhance climate resilience across various sectors. However, the implementation of these strategies is often hampered by insufficient funding and lack of coordination with other relevant stakeholders.

Research institutions such as the University of Zimbabwe and the Department of Research and Specialist Services (DR&SS) conduct critical research on climate change impacts, adaptation strategies, and agricultural innovations. However, there is a gap in translating this research into actionable strategies and disseminating them to farmers and other stakeholders effectively.

NGOs and civil society organizations (CSOs) play a significant role in community mobilization, capacity building, and advocacy for climate resilience and sustainable development. Organizations such as Practical Action, CARE International, and the Zimbabwe Farmers Union (ZFU) work closely with communities to implement climate adaptation projects, enhance food security, and promote sustainable livelihoods. However, their efforts are often limited by funding constraints and the need for better integration with government initiatives.

Barriers Faced by Target Communities

The target communities in southern Zimbabwe face numerous barriers that impede their ability to build climate resilience and enhance agricultural productivity. Water scarcity stands as a significant challenge for smallholder farmers, especially in drought-prone areas. The absence of reliable irrigation infrastructure and efficient water management systems exacerbates this issue, making it difficult for farmers to sustain their crops during dry spells. Consequently, the limited access to water severely undermines agricultural sustainability.

Low agricultural productivity is another critical barrier. Factors such as poor soil fertility, erratic rainfall, and the limited use of improved farming practices contribute to this problem. Farmers often lack access to high-quality seeds, fertilizers, and other essential inputs. Additionally, they frequently do not receive adequate training in climate-smart agricultural practices, which could otherwise help them improve their yields and adapt to changing climatic conditions.

Gender inequality further compounds these challenges. Women in rural areas face significant obstacles in accessing land, credit, and extension services, limiting their ability to adopt and benefit from climate-resilient agricultural practices. Cultural norms and practices also restrict women's participation in decision-making processes and leadership roles within their communities. This gender disparity not only hinders women's empowerment but also reduces the overall effectiveness of community resilience efforts.

Weak institutional support and poor market access add to these difficulties. Extension services provided by AGRITEX are often under-resourced and cannot effectively reach all farmers. This limits the dissemination of crucial climate-smart agricultural practices and technologies. Furthermore, smallholder farmers frequently face challenges in accessing markets for their produce due to poor infrastructure, high transportation costs, and limited market information. These factors hinder their ability to sell products at competitive prices and tap into value-added opportunities.

Compounding these issues is the inadequacy of climate information and early warning systems. Farmers often lack access to timely and accurate climate information, which is crucial for informed decision-making and effective climate risk management. The existing systems for climate data collection, analysis, and dissemination are often inadequate and not well-coordinated. Financial constraints further

exacerbate these challenges, as limited access to finance and credit prevents smallholder farmers from investing in improved farming practices, technologies, and inputs. This financial insecurity reduces their capacity to adapt to climatic shocks and increases their vulnerability to changing conditions.

Project description and strategy: objective, outcomes and expected results, description of field sites (if any)

The key problem the project proposes to address is the threat to the agricultural livelihoods of vulnerable smallholders in southern Zimbabwe, especially women, from the impacts of climate change-induced water scarcity. The objective of the proposed project is to support the Government of Zimbabwe in strengthening the resilience of agricultural livelihoods of vulnerable communities, particularly women, in southern Zimbabwe to increasing climate risks and impacts. The GCF Fund level impacts of the project are (i) increased resilience of vulnerable people and communities (ii) health and well-being, and food and water security. The GCF-related outcome of the project is strengthened adaptive capacity and reduced exposure to climate risks of vulnerable smallholder farmers, especially women, of southern Zimbabwe.

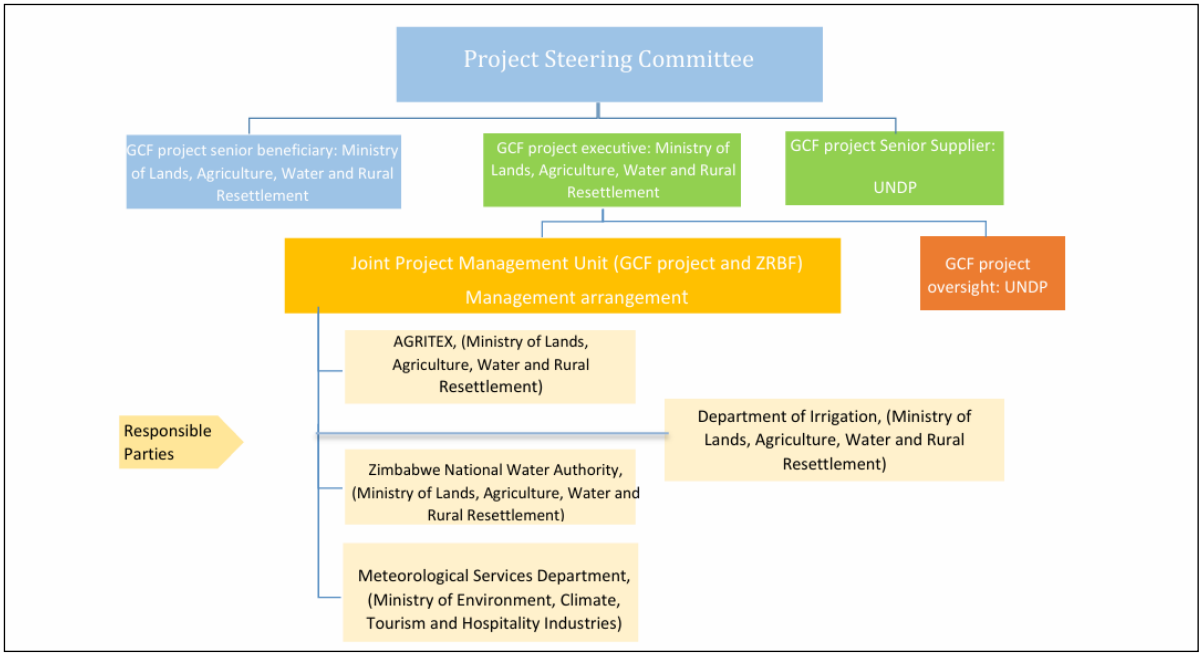
GCF funding is being applied to overcome barriers related to:

i. water security for smallholder farmers by enabling revitalization and climate-proofing of existing irrigation schemes, improving water use efficiency, and enhancing soil moisture management on rain-fed lands (Output 1).
ii. the adoption and application of climate-resilient agricultural practices and cropping systems through training of smallholder farmers in Farmer Field Schools and support to the peer-to-peer extension of the packages of climate-resilient innovations to current practice (Output 2).
iii. access markets for climate-resilient crops through their participation in localized Innovation Platforms involving all stakeholders – including buyers and credit providers - in crop-resilient value chains (Output 2).
iv. the production and dissemination of climate, agricultural, and market information by improving the network of hydro-meteorological stations in the catchments of the project area and by building the capacities of institutional personnel to compile, interpret, and produce actionable information for smallholders, and distribute it through a variety of media, including SMS and other communication channels (Output 3).

Project Implementation Arrangements: a short description of the Project Board, key implementing partner arrangements, etc.

The project is implemented under UNDP's National Implementation Modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of Zimbabwe, the Country Programme Document (CPD), and as policies and procedures outlined in the UNDP Programme and Operations Policies and Procedures. The project is executed through the Host Country, represented by the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD). UNDP provides a three-tier oversight and quality assurance role involving UNDP staff in Country Offices and at regional and headquarters levels. The Project Management Unit (PMU), managed by UNDP, provides the day-to-day management and implementation of the GCF activities, under the guidance of the PSC. The PMU now has a dedicated Project Manager, Financial Management Specialist, M&E, GIS, Communications, and Knowledge Management Officers. The PMU is supported by five thematic specialists responsible for Climate Resilient Irrigation Design and Operations, Climate Smart Agricultural Development, Market linkages, Social and Environmental Safeguards, Climate Change, and early warning systems (EWS).

Figure 1: Project implementation and management arrangements



At the national level, the project has a National Coordinator seconded by MLAFWRD. The project is governed by a Steering Committee, co-chaired by the MLAFWRD and UNDP. The steering committee consists of a group of representatives responsible for making consensus-based strategic, policy, and management decisions for the project, overseeing implementation, and reviewing compliance with applicable requirements for the project. The PSC comprises representatives from MSD, ZINWA, DOI, AGRITEX, and technical departments namely DR&SS, Strategic Planning and Business Development, and a ZRBF representative, WFP and FAO. Where the PSC cannot reach a consensus, the final decision over any issue concerning project implementation is made by UNDP. The PSC is supported by the National Technical Working Group comprising focal persons drawn from the Project Management Unit (PMU), MLAFWRD, MSD, ZINWA, DOI, AGRITEX, and technical departments namely DR&SS, Dept of Economics and Markets provide subject-specific technical oversight and guidance. The PSC meets quarterly and ad-hoc as needed.

Project timing and milestones

The following table gives the project milestones:

Event	Date
FAA Signature	2020-03-12
LPAC meeting	2020-06-06
Start date	2020-06-09
Inception meeting	2020-11-10
Interim Evaluation period	June- September 2024
Recruitment of the Project Management Unit	June 2020 to June 2021
Expected final evaluation	Within 3 months after year 7.
Expected end date	2027-06-09

Main stakeholders: summary list

Table 3 summarizes the main stakeholders. These include the Ministry of Environment, Climate and Wildlife, MLAFWRD, MSD, ZINWA, DOI, AGRITEX, and technical departments namely DR&SS, Dept of Economics and Markets, Zimbabwe Farmers Union, WFP, FAO, institutions of higher learning (MSU, GZU, UZ, and CUT), value chain private sector actors, CSOs, NGOs, and the benefiting communities.

Table 3: Stakeholder list and responsibilities

Stakeholder	Roles and Responsibilities
Ministry of Lands, Agriculture, Water, Fisheries, and Rural Development	- Formulate and implement agricultural policies. - Provide extension services through AGRITEX. - Support smallholder farmers. - Ensure coordination with other stakeholders. - Facilitate training for extension workers and farmers.
Ministry of Environment, Climate, and Wildlife	- Oversee environmental protection and climate change mitigation. - Implement the National Climate Change Response Strategy. - Coordinate with the Climate Change Management Department. - Ensure compliance with environmental regulations and standards.
Zimbabwe National Water Authority (ZINWA)	- Manage water resources and infrastructure. - Provide technical advice on groundwater planning and management. - Issue permits for water use and borehole drilling. - Monitor and manage water levels at strategic points.
Meteorological Services Department (MSD)	- Provide localized weather forecasts and seasonal outlooks. - Develop and disseminate early warning advisories. - Enhance climate data collection, analysis, and dissemination. - Train staff in data analysis and production of climate information products.
AGRITEX (Department of Agricultural Technical and Extension Services)	- Deliver agricultural extension services to farmers. - Train farmers in climate-smart agricultural practices and the use of the Participatory Integrated Climate Services for Agriculture (PICSA) approaches. - Facilitate the establishment and operation of Farmer Field Schools (FFS). - Provide on-site assistance and technical support to farmers.
Department of Research and Specialist Services (DR&SS)	- Research on climate change impacts and adaptation strategies. - Develop and promote climate-resilient agricultural practices and technologies. - Collaborate with international research institutions. - Disseminate research findings to stakeholders.
Non-Governmental Organizations (NGOs)	- Implement climate adaptation projects at the community level. - Mobilize and build the capacity of local communities. - Advocate for climate resilience and sustainable development. - Collaborate with government and other stakeholders for project implementation.
Zimbabwe Farmers Union (ZFU)	- Represent the interests of farmers. - Facilitate farmer-to-farmer learning and knowledge exchange. - Provide training and support to farmers in adopting climate-smart practices. - Advocate for policies that benefit smallholder farmers.
Institutions of higher learning (MSU, GZU, UZ, and CUT)	- Research climate resilience and sustainable agriculture. - Develop training materials and curricula for climate-smart agriculture. - Provide technical expertise and support for project implementation. - Facilitate knowledge exchange and capacity building.
International Development Partners (e.g., UNDP, FAO, GCF)	- Provide funding and technical assistance for the project. - Support capacity building and training activities. - Monitor and evaluate project progress and impact. - Ensure alignment with international climate resilience and sustainable development goals.

Local Communities and Farmers	- Participate in project activities and training. - Adopt and implement climate-smart agricultural practices. - Provide feedback and input for project improvement. - Collaborate with extension workers and other stakeholders for successful project implementation.

4. Findings

4.1 Project Strategy

Project Design

The project is designed to address various challenges faced by smallholder farmers in the region. This multifaceted project aims to improve irrigation infrastructure (using a climate-proofing approach), foster innovation, provide crucial climate information and promote sustainable agricultural practices. The project design analysis is crucial to understanding its effectiveness in achieving its objectives. The following analysis delves into various components of the project design, including irrigation resuscitation, development of innovation platforms, provision of climate information, promotion of climate-smart agriculture, implementation strategies, monitoring and evaluation, and risk management.

The project initiated a comprehensive assessment and planning phase, which was critical in identifying the deficiencies in the existing irrigation infrastructure. The initial feasibility study was found insufficient, necessitating more detailed assessments. The assessments provided a more current and comprehensive understanding of the proposed sites, which was crucial given the time lapse between project design and implementation.

Subsequently, alternative off-take locations within the same water source were identified for four out of the five schemes, concurrent with the redesign of the water supply systems for these schemes. Furthermore, two of the schemes were substituted in consultation with GCF and GoZ.that the project's resources were directed towards the most impactful interventions. Environmental and Social Management Plans (ESMPs) were also commissioned to address the environmental and social implications of the irrigation schemes as per the donor requirement.

The rehabilitation of irrigation infrastructure using a climate-proofing approach is a central component of the project. The project adopted a two-pronged approach: working with the Department of Irrigation (DOI) for simpler sites and engaging dedicated contractors for more complex ones. This strategy ensured that the rehabilitation work was carried out efficiently and to the required standards. The upgrades included the modernization of the irrigation system, revamping the pump station above flood levels, and introducing storage facilities, as well as the development of solar and national power grids to guarantee efficient water supply and distribution.

To cater to varying terrains and optimize water use efficiency, the project also implemented new irrigation technologies such as sprinkler and pivot systems. This modernization effort was crucial in enhancing the resilience of agricultural practices against climate variability.

A significant aspect of the project was the establishment of community-based irrigation management committees. These committees are responsible for the maintenance and operation of the irrigation systems, ensuring local ownership and sustainability. Training for these committees on site-specific operations and maintenance (O&M) is planned to further enhance their capacity.

The project facilitated tailored training programs for DOI and other implementing partners. These training sessions aimed to build the technical capacity required for the effective management of irrigation systems.

The installation of water level monitoring equipment upstream and downstream of selected water bodies was another critical component. This equipment helps in real-time monitoring of water resources, guiding irrigation projects, and ensuring optimal water use.

At the time of evaluation, none of the schemes were in production, but there was significant community engagement and motivation as farmers prepared to commence production. A significant number of beneficiaries attended evaluation-related site visits, indicating high expectations and readiness for the project’s implementation.

The project partnered with the Department of Research and Specialist Services (DR&SS) to revitalize innovation platforms. These platforms bring together researchers, agricultural extension services, private sector partners, and farmers to develop and share knowledge and innovations. This collaborative approach ensures that the latest research and technology are accessible to farmers.

Through co-financing, the Government of Zimbabwe (GoZ) has rehabilitated and created new laboratory spaces, while the Green Climate Fund (GCF) has provided state-of-the-art laboratory equipment. Equipment installations at the innovation centres were completed during the April-June 2024 period. GoZ recruitment processes for qualified laboratory personnel are currently underway. In the meantime, MRI is providing technical support to other innovation centres on a need-to basis.

The project also includes extensive training programs for farmers and innovation platform members. These programs aim to enhance their skills in modern agricultural practices and technology transfer, ensuring that they can adopt and implement climate-smart techniques effectively.

The installation of weather stations and climate sensors is a pivotal element of the project. These stations collect real-time data on weather patterns, soil moisture, and other relevant parameters, providing crucial information for agricultural decision-making.

Through the Meteorological Services Department (MSD) and AGRITEX, the project disseminates climate information, including weather forecasts, early warning alerts, and agronomic advice. This information is shared with lead farmers via social media, ensuring timely and relevant updates.

Workshops and training sessions were facilitated by MSD and AGRITEX to educate farmers on how to interpret and use climate information for decision-making. This capacity-building effort ensures that farmers are better equipped to adapt to climate variability.

Since the 2020/21 season, the project has been promoting sustainable agricultural practices such as crop rotation, intercropping, agroforestry, and conservation agriculture. These practices enhance soil health, increase biodiversity, and improve resilience to climate shocks.

The introduction and distribution of climate-resilient crop varieties that are drought-tolerant and resistant to pests and diseases are central to the project's strategy. These crop varieties are essential in ensuring food security and agricultural productivity under changing climatic conditions. GoZ has significantly contributed towards this strategy through the *pfumvudza/intwasa* initiative. GoZ is providing inputs, notably sorghum, millet, and fertilizers to targeted beneficiaries. GoZ has since exceeded its co-financing contribution for Activity 2.2.

Techniques such as contour farming, terracing, and mulching are promoted to conserve soil and water resources. These conservation practices are crucial in maintaining soil fertility and reducing erosion, thereby supporting sustainable agriculture.

The project has engaged a wide range of stakeholders from the outset, including local communities, government agencies, research institutions, and private sector partners. Multi-stakeholder advisory committees at various levels (national, district, and community) guide project implementation and ensure alignment with local needs and priorities. This inclusive approach fosters broad-based support and collaboration, which is essential for the project’s success.

The project follows a phased implementation approach. Phase 1 involved conceptualization, reconnaissance surveys, and baseline assessments in selected areas to refine methodologies and target validation. Phase 2 focuses on accelerated implementation and adaptive management, allowing for adjustments based on real-time feedback and changing conditions within the context.

The project employs a participatory approach to monitoring and evaluation (M&E). Most of the data is generated by implementing partners, ensuring that the process is grounded in local realities. This approach allows for continuous progress tracking, assessment of impact, and informed adaptive management.

The project identified potential risks early on and developed mitigation strategies to address them. These risks include environmental, social, and operational challenges. Through accelerated implementation, stakeholder engagement, and routine tracking and reporting, the project has managed to keep risks under control and ensure continuity.

The project's design incorporates adaptive management practices, allowing for adjustments based on ongoing assessments and stakeholder feedback. This flexibility is crucial in responding to unforeseen challenges and ensuring the project remains on track.

Results Framework/Logframe

The project aims to build resilience against climate change effects for vulnerable communities in Southern Zimbabwe, particularly targeting women smallholder farmers. The strategy involves a comprehensive results framework structured around a clear objective, outcomes, and outputs. The objective is to support the Government of Zimbabwe in enhancing the resilience of agricultural livelihoods in the face of increasing climate risks. The project's key outcomes include increased resilience of vulnerable communities, improved health and well-being, and enhanced food and water security. To achieve these outcomes, the project has established specific outputs aimed at addressing water security, promoting climate-resilient agricultural practices, improving market access for climate-resilient crops, and enhancing the dissemination of climate information.

The results framework begins with the project's objective, which directly addresses the core issue of climate-induced water scarcity affecting agricultural livelihoods. This objective is well-defined and aligns with the overarching goal of increasing resilience among vulnerable smallholder farmers. The expected GCF Fund level impacts are articulated: increased resilience of people and communities, improved health and well-being, and secured food and water supplies. These impacts are highly relevant and provide a broad, long-term vision for the project's success. The project's outcomes, particularly the strengthened adaptive capacity and reduced exposure to climate risks, are logically connected to the overall objective. This coherence between the objective and outcomes is crucial as it ensures that the project remains focused on its primary goal while addressing the multifaceted nature of climate resilience.

The project's outputs are designed to tackle specific barriers that smallholder farmers face in Southern Zimbabwe. Output 1 focuses on water security by revitalizing and climate-proofing 15 existing irrigation schemes, developing six new schemes, improving water use efficiency, and enhancing soil moisture management on rain-fed lands. This output is crucial because water scarcity is a primary threat to agricultural productivity. By ensuring reliable access to water and efficient usage, the project lays a strong foundation for sustainable farming practices. Output 2 emphasizes the adoption and application of climate-resilient agricultural practices through Farmer Field Schools and peer-to-peer extension programs. This approach not only imparts essential knowledge and skills but also fosters a community-based support system that can sustain these practices in the long term. Additionally, Output 2 aims to facilitate access to markets for climate-resilient crops by involving stakeholders in localized Innovation Platforms. This market-oriented approach ensures that farmers can not only produce resilient crops but also sell them at fair prices, thus securing their livelihoods.

Output 3 addresses the need for accurate and timely climate, agricultural, and market information. By improving the network of hydro-meteorological stations and building the capacities of institutional personnel, the project ensures that smallholders receive actionable information through various media channels, including SMS. This output is essential as it bridges the information gap that often hinders effective decision-making among farmers. With better access to weather forecasts, market trends, and agricultural advice, farmers can make informed choices that enhance their resilience to climate shocks. However, while the results framework is robust, certain gaps need to be addressed to ensure the project's overall success.

In terms of the project's design, while the combination of different results levels (objective, outcomes, and outputs) is sound, there are challenges related to the comprehensive integration of gender-sensitive approaches. Although the project targets women and aims for at least 50% female beneficiaries, more explicit strategies are needed to address socio-cultural barriers that hinder women's full participation. For example, the reluctance of some women to assume leadership roles and the increased workload for women due to new agricultural practices are issues that require targeted interventions.

Moreover, the project's focus on building local capacities and fostering community engagement is commendable. The use of Farmer Field Schools, PICSA approach and Innovation Platforms to disseminate climate-smart agricultural practices and enhance market access demonstrates a commitment to sustainable development. These community-based approaches ensure that knowledge and skills are passed on, creating a ripple effect that can sustain the project's benefits beyond its lifespan. However, the project must ensure that these platforms are inclusive and accessible to all community members, including marginalized groups. This inclusivity is crucial for achieving equitable and widespread impact.

The project indicators are in most cases SMART. The table provides a detailed analysis of their situation.

Table 4: A review of the indicator quality

Indicator	Specific	Measurable	Achievable	Relevant	Time-bound	Improvement Suggestions
Increased resilience of smallholder livelihoods; Enhanced water and food security						
Indicator 1: Total number of direct and indirect beneficiaries	Yes	Yes	Yes	Yes	Yes	Please consider an improved version that reads: "Total number of direct and indirect beneficiaries, disaggregated by type of beneficiary and service (e.g., VSL)." This version specifies that beneficiaries should be disaggregated by type and measured service access point. If you suggest keeping as is, please make sure the indicator reference sheet (IRS) captures these nuances.
Indicator 2: Number of beneficiaries relative to total population	Yes	Yes	Yes	Yes	Yes	Please consider: "Number of beneficiaries within the defined target group relative to the total number of eligible individuals, assessed annually." This adds specific and eliminates potential inclusion errors in the denominator. It specifies the frequency of measurement as well.
Indicator 3: Number of males and females benefiting from the adoption of diversified climate-resilient livelihood options	Yes	Yes	Yes	Yes	Yes	Given that the indicator is collected through a survey, here's a more specific, measurable, achievable, relevant, and time-bound (SMART) version of the indicator: "Number of people who have adopted diversified, climate-resilient agricultural practices within the past year, resulting in measurable improvements in crop yield and or income." (the IRS should ensure its disaggregated by sex, among other attributes). This version specifies the time frame ("within the past year") and the expected outcomes ("measurable improvements in crop yield or income"), making the indicator more precise and easier to assess.
Indicator 4: Number of males and females with year-round access to reliable and safe water supply	Yes	Yes	Yes	Yes	Yes	Irrigation water is not typically intended for drinking or direct human consumption, so the term "safe" in the context of irrigation water usually refers to its suitability for agricultural use. Safe irrigation water should be free from contaminants that could harm crops, soil, or the health of consumers of the produce. Given this clarification, the improved indicator might be:

						"Number of males and females with year-round access to reliable irrigation water supply suitable for agricultural use." This version emphasizes the suitability of the irrigation water for its intended agricultural purpose.
Project Outcome 1: Increased generation and use of climate information in decision-making						
Indicator 6: Use of capacity for generation of climate information products/services in decision-making	No	No	Yes	Yes	Yes	Please consider for this composite indicator: "Capacity of government agencies (MSD, AGRITEX, ZINWA) to generate and disseminate climate and weather-related information products and or services for farmer use. " This version specifies the agencies involved, focuses on both generation and dissemination, and highlights the end-users (farmers). An indicator reference sheet must be developed to capture its composite nature. IRS must be developped for all indcators.
Indicator 7: % of direct beneficiaries consistently using climate information/products and services in farming decisions	Yes	Yes	Yes	Yes	Yes	Since we are measuring this indicator retrospectively through a survey, please consider the following: "Percentage of direct beneficiaries consistently utilizing climate information products and services for informed farming decisions over the past year." This revision clarifies the time frame and emphasizes the use of information for making informed decisions, ensuring the indicator is specific and measurable.
Project Outcome 2: Strengthened adaptive capacity and reduced exposure to climate risks						
Indicator 8: Use by vulnerable households, communities, businesses, and public-sector services of Fund-supported tools	No	No	Yes	Yes	Yes	Make it specific and measurable, e.g., "Number or % of vulnerable households/ numbers of communities/ number of public sector entities consistently using Fund-supported tools over the project period." This version separately tracks each group and specifies the improvement target for each..The indicator could be measured annually. Again the IRS should be provide additional details.
Indicator 10: No. of hectares under climate-proofed irrigation	Yes	Yes	Yes	Yes	Yes	The indicator is clear
Indicator 11: Number of rain-fed hectares exhibiting water harvesting and climate-resilient water management measures	Yes	Yes	Yes	Yes	Yes	Clear

Indicator 12: Average level of production increases (%) per hectare in newly irrigated hectares (tons/ha)	No	Yes	Yes	Yes	Yes	Improve the indicator to read "Average percentage increase in crop (specify crop) yield per hectare in newly irrigated areas, measured annually." This version clarifies the type of increase (percentage) and specifies the measurement frequency (annually), making it easier to track progress and assess impact. In the irrigation schemes, you could also change "annually" to "per cropping cycle" Given earlier conversations, please also add the following complementary indicator: "Average percentage increase in crop (specify crop) yield per hectare in dryland farms, measured annually." You could also change "annually" to per cropping season.
Indicator 13: Number of smallholder farmers implementing climate-resilient agricultural practices/cropping systems	Yes	Yes	Yes	Yes	Yes	Here's an improved version of the indicator: "Number of smallholder farmers adopting and actively implementing climate-resilient agricultural practices, measured annually." This version clarifies that the farmers are not only adopting but also actively implementing the practices and specifies the measurement frequency.
Indicator 14: Numbers of operational monitoring stations in key catchments and VIS systems	Yes	Yes	Yes	Yes	Yes	clear
Indicator 15: Number of smallholders receiving new advisories and warnings developed for both agriculture and water management	Yes	Yes	Yes	Yes	Yes	Please consider the revisions below: "Percentage of smallholder farmers who have received and acted upon new advisories and warnings for agriculture and water management." This version presents the indicator as a percentage, focusing on both receipt and action taken on the advisories and warnings. Based on the earlier meeting with WFP, also consider the following: "Number of farmers who have been empowered to make informed agricultural decisions through their use of the Participatory Integrated Climate Services for Agriculture (PICSA) approach, as assessed annually." This version clarifies the use of PICSA and specifies the empowerment aspect.
Indicator 16: Increased % of women's membership in irrigation management committees	Yes	Yes	Yes	Yes	Yes	Number (and %) of women in irrigation management committees.

Indicator 17: Number of women in strategic leadership positions in IMCs	Yes	Yes	Yes	Yes	Yes	clear
Indicator 18: Number of women and men trained in financial management, marketing, and business development	Yes	Yes	Yes	Yes	Yes	"Number of women and men trained in financial management, marketing, and business development, with disaggregation by training type and gender." This version clarifies that the training will be disaggregated by both type (financial management, marketing, business development) and gender, providing more detailed insights.
Indicator 19: Number of women and men smallholder farmers participating in the planned 75 innovation platforms	Yes	Yes	Yes	Yes	Yes	Number of male and female smallholder farmers actively participating in the planned innovation platforms"." This version specifies active participation and includes a breakdown by gender.

Analysis of the project theory of change

The project aimed to address significant challenges related to climate change, such as increasing temperatures, rainfall variability, and extreme rainfall events. These factors pose threats to agricultural productivity, water availability, and the overall resilience of vulnerable communities, particularly smallholder farmers in Southern Zimbabwe. The project's activities were specifically designed to mitigate these challenges through tailored interventions.

1. Temperature increase: Rising temperatures have resulted in increased evapotranspiration, reduced crop tolerance to heat, and heightened pest activity. In response, the project introduced climate-smart agricultural practices under Output 2, which focused on promoting heat-tolerant crop varieties and breeds, encouraging agroforestry and soil conservation to maintain soil moisture, and diversifying crops to enhance food security amidst climate variability.

The introduction of heat-tolerant crops directly addressed the temperature-related challenges by improving crop resilience, ensuring that farmers could maintain productivity despite increasing heat levels.

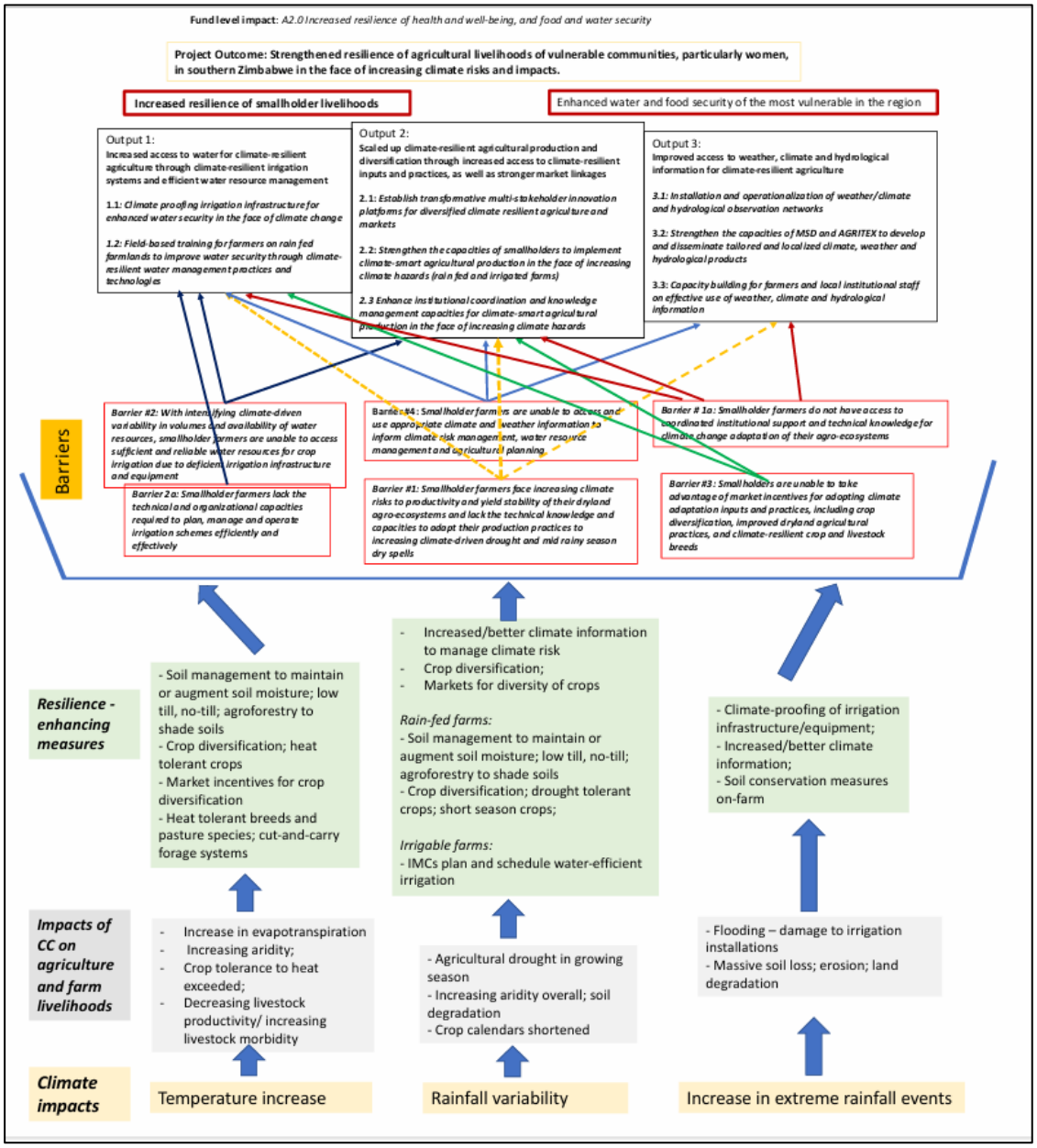
2. Rainfall variability: Erratic rainfall patterns and prolonged droughts have threatened water availability, shortened growing seasons, and led to agricultural droughts. The project responded with interventions under Output 3, emphasizing climate-proofing irrigation infrastructure to withstand variability in rainfall and providing farmers with water-efficient irrigation technologies and training on water management.

These activities were designed to mitigate the impacts of erratic rainfall by improving water use efficiency and ensuring that smallholder farmers could continue producing crops even in the face of water scarcity.

3. Extreme rainfall events: Intense and infrequent rainfall events have caused flooding, infrastructure damage, and land degradation. To counter this, Output 1 included measures for enhancing soil and water management such as supporting soil conservation techniques, such as low-till farming, which prevent soil erosion during heavy rains and ensuring irrigation systems are equipped to handle excess water during floods, reducing damage to installations and maintaining water supply.

These targeted interventions are designed to enhance the resilience of irrigation and soil management systems to withstand extreme weather events.

Figure 2: Project theory of change



Irrigation Infrastructure: Under Output 3, the project sought to improve water security through the installation and maintenance of irrigation systems. During implementation, several factors influenced the success of this intervention:

The need to conduct detailed site-specific feasibility and design studies and catchment-specific ESMPs delayed progress towards fully functional climate-proofed irrigation schemes. This was further compounded by delays in procuring some of the irrigation equipment. This caused setbacks in providing timely water access to farmers. Climate-Smart Agricultural Practices: As part of Output 2, the project aimed to enhance smallholder resilience by promoting climate-smart practices, such as crop and livestock diversification and agroforestry. Challenges arose in encouraging widespread adoption:

Some farmers were hesitant to adopt new agricultural techniques due to concerns about the economic risks of switching to new crop varieties. In these cases, more intensive training and demonstration plots proved helpful in overcoming resistance and showcasing the benefits of these practices. Despite these

challenges, farmers who adopted these practices reported better yields during periods of temperature stress, demonstrating the potential of these methods to enhance resilience when effectively applied.

A critical assessment of the ToC reveals that, while the core assumptions held, there were areas where the implementation diverged from initial expectations. For example, the assumption and choice to give GoZ the responsibility to support production-related financing caused delays in the operationalization of irrigation schemes in instances where climate-proofing had been completed. This highlights the need to reconsider production financing-related choices.

The ToC's emphasis on crop diversification and agroforestry as resilience-enhancing measures held up well in practice. Farmers who implemented these practices reported greater resilience to both temperature increases and rainfall variability. However, a stronger focus on farmer education and risk mitigation will be critical given the stern stress testing witnessed during the 2023/24 agricultural season.

Overall, the ToC provided a sound framework for guiding the project's interventions, but real-world challenges, such as delays in equipment procurement and farmer mindset shifts, underscore the need for adaptive management strategies to enhance the project's success.

4.2 Relevance

Zimbabwe's Nationally Determined Contribution (NDC) highlights the agriculture sector as the country's core vulnerability to climate change, emphasizing adaptation as a national priority requiring policy direction at the highest levels. This priority is reflected in various national policies and strategies, including the National Climate Change Response Strategy (NCCRS) (2014), the National Climate Policy, the Renewable Energy Policy, the National Policy and Programme on Drought Mitigation, the Draft Disaster Risk Management Policy and Strategy, the Second Science, Technology and Innovation Policy 2012, the Water Policy, the Zimbabwe Agricultural Policy and Investment Plan, the Irrigation Policy, the Agriculture Marketing and Pricing Policy, and the Small, Micro, and Medium Enterprises Policy, as well as the Environmental Management Act.

Alignment with National Policies and Strategies

The project "Building Climate Resilience of Vulnerable Agricultural Livelihoods in Southern Zimbabwe" aligns with Zimbabwe's strategic policies and frameworks. The project directly addresses the core vulnerabilities identified in the NDC by focusing on agriculture, a sector crucial to Zimbabwe's economy and food security but highly susceptible to climate change impacts. By promoting climate-smart agricultural practices, rehabilitating irrigation infrastructure, and fostering innovation in agricultural practices, the project is pivotal in advancing the NCCRS and other related policies.

Discussions with senior government officials, including the Permanent Secretary in the Ministry of Lands, Water, Fisheries, and Rural Development (MLWFRD), revealed substantial support and endorsement at various levels of government. This support underscores the project's alignment with national priorities and its importance in addressing climate change impacts on agriculture.

Contribution to Zimbabwe's NDC and Government Priorities

The project significantly contributes to Zimbabwe's Nationally Determined Contribution (NDC) commitments by strengthening the capacity to generate new empirical knowledge and technologies to address climate challenges. One of the core elements of the project is the introduction and promotion of conservation agriculture, a practice that not only enhances crop yields but also conserves the environment. Conservation agriculture involves minimal soil disturbance, maintaining a permanent soil cover, and practising crop rotations, which help to improve soil health, reduce erosion, and increase water infiltration.

Training programs are integral to this capacity-building effort. Farmers, extension officers, and other stakeholders receive training on the principles and practices of conservation agriculture. These training sessions provide practical knowledge and skills that enable farmers to adopt and sustain these practices. The project also facilitates knowledge transfer from research institutions to the farming communities, ensuring that the latest innovations and best practices are disseminated effectively.

Moreover, the project invests in building the technical and operational capacities of local institutions involved in agriculture and water management. By enhancing the skills and knowledge of these institutions, the project ensures that they are better equipped to support farmers in adapting to climate change. This includes training on new agricultural technologies, water management techniques, and climate-resilient farming practices.

The project recognizes the value of indigenous knowledge in enhancing resilience to climate change. Indigenous knowledge systems, developed over generations, offer practical solutions for managing local ecosystems and natural resources. By integrating this knowledge with scientific research, the project promotes the use of drought-tolerant crop varieties and resilient livestock breeds that are well-adapted to local climatic conditions.

Drought-tolerant crops such as sorghum, millet, and cowpeas are introduced to farmers, along with training on their cultivation and management. These crops are better suited to withstand periods of low rainfall and high temperatures, ensuring that farmers can maintain productivity even under adverse weather conditions. Similarly, the project promotes the use of indigenous livestock breeds, which are more resilient to temperature extremes and diseases compared to exotic breeds.

The integration of indigenous and scientific knowledge also extends to water management practices. Traditional methods of water harvesting, and soil moisture conservation are revived and combined with modern techniques to improve water use efficiency. This approach not only preserves cultural heritage but also enhances the sustainability and effectiveness of water management strategies.

Water resource management is a critical component of the project, directly addressing Zimbabwe's NDC commitments. The project undertakes comprehensive assessments of existing water resources and irrigation infrastructure to identify areas needing intervention. These assessments inform the development and rehabilitation of surface and groundwater resources, ensuring a reliable supply of water for agricultural activities.

One of the key strategies employed is water harvesting, which involves collecting and storing rainwater for use during dry periods. This practice reduces dependency on unpredictable rainfall and ensures that crops receive adequate water throughout their growth cycle.

Efficient water use practices are emphasized to maximize the benefits of available water resources. Drip irrigation, sprinkler systems, and other modern irrigation technologies are introduced to optimize water distribution and minimize wastage. These technologies are tailored to suit the diverse terrains and climatic conditions of the target areas, ensuring their effectiveness and sustainability.

The project also focuses on strengthening and intensifying monitoring systems for hydro-meteorological parameters. By providing accurate and timely data on weather patterns, water availability, and soil moisture levels, these monitoring systems enable farmers and water managers to make informed decisions. This proactive approach helps to mitigate the impacts of climate variability and ensures the efficient allocation and use of water resources.

Building the capacity of national meteorological and hydrological services is essential for providing timely and reliable hydromet data. The project invests in upgrading the infrastructure and capabilities of these services, ensuring that they can generate accurate weather forecasts, climate models, and early warning systems. This information is crucial for farmers and agricultural planners to make informed decisions and develop strategies to cope with climate change.

The project also strengthens institutional frameworks for integrated water resources management. This includes enhancing coordination among various government agencies, research institutions, and community organizations involved in water management. By fostering collaboration and information sharing, the project ensures a holistic and integrated approach to managing water resources.

Furthermore, the project promotes the development of policies and strategies that support sustainable water use and climate-resilient agriculture. This includes advocating for the inclusion of climate change considerations in national and local development plans and ensuring that water resource management and agricultural practices are aligned with climate adaptation goals.

Alignment with GCF and UNDP Strategic Priorities

The project aligns with the strategic impact areas of the Green Climate Fund (GCF), particularly in promoting low-emission development pathways, increasing climate resilience, and protecting ecosystems. The project meets GCF investment criteria by demonstrating potential for transformational impact, sustainability, and scalability.

The project promotes sustainable agricultural practices that reduce greenhouse gas emissions. By encouraging conservation agriculture, efficient water use, and the adoption of drought-tolerant crop varieties, the project minimizes the carbon footprint of agricultural activities. This contributes to Zimbabwe's efforts to transition towards a low-emission development pathway, aligning with GCF's strategic objectives.

The project's focus on building resilience in the agriculture sector directly addresses GCF's goal of enhancing adaptive capacity. By improving water management, promoting climate-smart agricultural practices, and strengthening institutional capacities, the project ensures that communities are better prepared to cope with the impacts of climate change. This holistic approach to resilience-building is central to GCF's mission.

The project promotes practices that protect and restore ecosystems, such as conservation agriculture and sustainable water management. By maintaining soil health, reducing erosion, and enhancing water conservation, the project helps to preserve the integrity of local ecosystems. This aligns with GCF's emphasis on ecosystem-based adaptation and mitigation strategies.

The project also aligns with UNDP's strategic priorities, focusing on sustainable development, poverty reduction, and climate change adaptation. By improving agricultural practices, enhancing water management, and fostering innovation, the project supports UNDP's goals of promoting resilient livelihoods and sustainable development.

The project contributes to sustainable development by promoting practices that are environmentally sustainable, economically viable, and socially inclusive. By enhancing agricultural productivity and resilience, the project ensures food security and economic stability for rural communities. This supports UNDP's commitment to achieving the Sustainable Development Goals (SDGs), particularly SDG 2 (Zero Hunger) and SDG 13 (Climate Action).

By improving agricultural productivity and resilience, the project directly addresses poverty reduction. Enhanced agricultural practices and reliable water management increase farmers' incomes and reduce vulnerability to climate shocks. This contributes to UNDP's efforts to eradicate poverty and improve the livelihoods of the poorest and most vulnerable populations.

The project's focus on building resilience to climate change aligns with UNDP's priority on climate change adaptation. By promoting climate-smart agriculture, efficient water use, and capacity building, the project enhances the adaptive capacity of communities and institutions. This is crucial for ensuring sustainable development in the face of climate change.

The project's multifaceted approach to addressing climate change and improving agricultural practices is essential for fostering resilience in Zimbabwe's agriculture sector. By enhancing water management, promoting sustainable agricultural practices, and building institutional capacities, the project ensures sustainable food production and enhances the livelihoods of rural communities.

The project's emphasis on conservation agriculture, drought-tolerant crops, and efficient water use ensures that agricultural production remains sustainable and resilient to climate variability. This is crucial for maintaining food security and supporting rural economies.

The improvement of agricultural practices and water management enhances the productivity and profitability of farming activities. This increases farmers' incomes and improves their quality of life. The project also promotes diversification of income sources, such as through the introduction of new crop varieties and livestock breeds, reducing farmers' dependency on a single source of income.

The project empowers communities by involving them in decision-making processes and providing them with the knowledge and skills needed to adopt climate-smart practices. This fosters a sense of ownership and responsibility, ensuring the sustainability of the project's interventions.

The targeted districts for the project lie in the semi-arid and arid regions of Zimbabwe, areas characterized by high temperatures, frequent droughts, and erratic rainfall. These harsh climatic conditions pose significant challenges to agriculture, making it an unreliable source of livelihood for local communities. The project's focus on irrigation, climate-smart agriculture, and capacity building directly addresses these specific challenges, aiming to transform agriculture into a more sustainable and dependable endeavour.

One of the cornerstone strategies of the project is the rehabilitation and development of new irrigation infrastructure. By ensuring a reliable water supply for agriculture, the project aims to mitigate the adverse effects of frequent droughts, which have historically crippled agricultural productivity in these regions. The rehabilitation efforts include repairing and upgrading existing irrigation systems, installing new technologies such as drip and sprinkler systems, and constructing storage facilities to enhance water management. These interventions are designed to provide a consistent water supply, thereby stabilizing agricultural output and securing the livelihoods of farming communities.

In addition to irrigation, the project promotes the cultivation of drought-tolerant crops and the rearing of resilient livestock varieties. Introducing small grains like sorghum and millet, which are more resistant to drought conditions, helps to diversify income sources and improve food security. Similarly, the introduction of resilient livestock breeds, such as the hybrid Kalahari-Matabele breed, aims to enhance the sustainability of livestock farming. These initiatives not only address the immediate food security needs of the communities but also build long-term resilience against climate variability.

The project's success hinges on the active engagement and participation of local communities. By establishing community-based irrigation management committees, the project ensures local ownership and sustainability of the interventions. These committees are responsible for overseeing the maintenance and operation of irrigation systems, fostering a sense of responsibility and empowerment among community members. Additionally, the project provides extensive training and capacity-building programs to equip communities with the necessary skills to manage and sustain the infrastructure effectively. The Farmer Field Schools - as farmer outreach and technology transfer mechanisms, including in rain-fed areas, - have also been instrumental in fostering community participation and enhancing capacity development and ownership.

The project adopts a flexible and responsive approach, continuously adapting interventions based on new information and community feedback. This adaptability ensures that the initiatives remain relevant and effective in addressing the evolving needs of the target communities. For example, the civil works for completed irrigation schemes have demonstrated sensitivity to local conditions, such as rain-induced fluctuations in water availability and siltation, ensuring that the interventions are context-appropriate and sustainable.

The inclusion of a Village Savings and Loan (VSL) component and a specific focus on women's empowerment further tailors the project to the social, economic, and cultural contexts of the target communities. By fostering financial inclusion and supporting women's participation in agriculture, the project enhances the overall resilience and sustainability of the communities.

The project stands out for its innovative approaches and the introduction of advanced technologies that enhance its relevance to climate change adaptation and mitigation. For instance, the development of new

small grain varieties and resilient livestock breeds, such as the hybrid Kalahari-Matabele breed, represents a significant step towards creating agricultural systems that are better suited to local climatic conditions.

Participatory varietal selection involving farmers and other value chain actors ensures that the introduced varieties meet the specific needs and preferences of the local communities. This inclusive approach not only enhances the adoption of new technologies but also ensures that the benefits are widely distributed across the community.

The project also makes substantial investments in laboratory infrastructure and state-of-the-art technologies. These investments are transformative, potentially revolutionizing agricultural practices and research in Zimbabwe. By equipping research institutions with advanced tools and facilities, the project fosters innovation and enhances the capacity to develop and disseminate climate-smart agricultural practices.

The Government of Zimbabwe's recognition and active involvement in scaling up irrigation and transforming agricultural practices highlight the project's alignment with national priorities. The commitment of senior government officials, including the Permanent Secretary, underscores the importance of the project's interventions in preventing future food insecurity. The government's efforts to scale up irrigation, promote climate-resilient agriculture, and establish village business units across all 35,000 villages demonstrate a strong commitment to achieving the project's objectives.

Community involvement has been equally significant, with local communities partnering with the government and private contractors in implementing the project. This collaboration includes fencing irrigation schemes, procuring seeds, fertilizers, and livestock, and forming governance structures. These efforts ensure that the project is deeply rooted in local contexts and benefits from strong local support.

The project's emphasis on irrigation and climate-resilient agriculture directly addresses the dual challenges of climate change and food security. By ensuring a reliable water supply and promoting resilient agricultural practices, the project aims to enhance food security and livelihoods in vulnerable communities. The focus on sustainable intensification and commercialization of agriculture at different scales across agro-ecologies ensures that the interventions are scalable and sustainable.

Sustainable intensification involves increasing agricultural productivity on existing farmland while minimizing negative environmental impacts. The project promotes practices such as crop rotation, intercropping, agroforestry, and conservation agriculture to achieve this goal. These practices improve soil health, enhance biodiversity, and increase the resilience of agricultural systems to climate change.

The project also supports the commercialization of agriculture by developing market linkages and promoting value addition. This approach helps farmers to access better markets, increase their incomes, and reduce their dependency on subsistence farming. By fostering entrepreneurship and business development, the project contributes to the overall economic development of the target communities.

Strengthening the capacity of national meteorological and hydrological services, research institutions, and extension services is crucial for the project's long-term success. These institutions play a vital role in providing timely climate data, developing and disseminating new technologies, and supporting farmers in adopting climate-smart practices.

The project invests in upgrading the infrastructure and capabilities of national meteorological and hydrological services. This includes installing weather stations, climate sensors, and data management systems to enhance the accuracy and timeliness of climate data. By providing reliable weather forecasts, early warning alerts, and climate information services, these institutions support farmers in making informed decisions and developing adaptive strategies.

The project supports innovation platforms that bring together researchers, extension services, private sector partners, and farmers. These platforms foster collaboration and knowledge exchange, essential for developing and scaling up effective climate adaptation strategies. By facilitating research and innovation, the project enhances the capacity of local institutions to address climate change challenges and promote sustainable agricultural practices.

The project contributes to several Sustainable Development Goals (SDGs), demonstrating its broad impact on sustainable development.

SDG 2 (Zero hunger)
By promoting resilient agricultural practices and improving food security, the project directly contributes to SDG 2. The introduction of drought-tolerant crops and resilient livestock breeds enhances food production and availability, reducing hunger and malnutrition in the target communities.

SDG 6 (Clean water and sanitation)
The project's focus on improving water management and irrigation practices contributes to SDG 6. By ensuring a reliable water supply and promoting efficient water use, the project enhances water security and supports sustainable agricultural practices.

SDG 13 (Climate action)
The project's emphasis on enhancing resilience to climate change and promoting climate-smart agriculture aligns with SDG 13. By building the capacity of local communities and institutions to adapt to climate variability, the project supports global efforts to combat climate change.

SDG 5 (Gender equality)
Agender-sensitive project design set the tone for gender equity and equality. A gender analysis during the planning phase identified gender-specific challenges and opportunities. The project goals, outcomes, and activities explicitly integrate gender considerations, ensuring both men and women benefit from the multiple initiatives being implemented. The participation criteria and outreach strategies ensure women are included in project activities, consultations, and decision-making platforms. For instance, at least 60% of the project beneficiaries are women and at least 50% of the leadership positions in leadership and governance structures such as the IMCs are held by women.

The project has incorporated training and skills development specifically tailored for women, especially given that leadership and governance positions have been traditionally male-dominated. These trainings include leadership training, financial literacy, and technical skills. Empowering women to take on leadership roles increases their decision-making power and participation in the project. By supporting women's financial inclusion and leadership, the project contributes to SDG 5.

The project has also intentionally integrated gender-specific indicators into its monitoring and evaluation framework. The M&E framework enables the project to report on women's access to resources, their involvement in decision-making processes, and changes in their socio-economic status. Regularly tracking gender-related outcomes ensures the project remains focused on promoting gender equity and makes necessary adjustments based on real-time data.

The project also ensures that adequate financial and human resources are dedicated to implementing gender-related activities within the project, including allocating a specific budget for women's empowerment initiatives funded by UNDP. Allocating dedicated resources ensures that gender-focused activities are prioritized and not overlooked in project execution. Furthermore, the project is utilizing media channels such as '*WhatsApp'* that women have access to in disseminating climate and weather-related information. The recently recruited communication position will continue to adapt communication materials and methods to be gender-sensitive, ensuring that messages reach both men and women effectively.

4.3 Effectiveness and Efficiency

Effectiveness

The project's effectiveness in achieving its intended outcomes is evident in several key areas, including increased agricultural yields, enhanced food security, empowered communities, and innovative research and development. These outcomes demonstrate the project's ability to address the challenges faced by the target communities and contribute to sustainable development and climate resilience.

Increased agricultural yields: One of the most significant indicators of the project's effectiveness is the increase in agricultural yields reported among the participating farmers. The introduction of smart agricultural practices, despite the delay in operationalizing the improved irrigation infrastructure, has played a pivotal role in enhancing productivity. During the 2022/23 agricultural season, yields more

than doubled the general average, showcasing the tangible benefits of the project's interventions. For instance, in Masvingo Province, the average sorghum yield for the district was 0.5-0.6 tonnes per hectare (Ha) compared to 1.5 tonnes per hectare in farmer field schools. This remarkable improvement highlights the impact of adopting climate-smart agricultural practices, such as crop rotation, intercropping, and the use of improved seed varieties. The project's emphasis on building the technical capacity of farmers through training and demonstration plots has equipped them with the skills and knowledge needed to optimize their farming practices, leading to higher yields. Moreover, the project's focus on rehabilitating existing irrigation systems and developing new ones has ensured a reliable water supply for agricultural activities. The efficient use of water resources, facilitated by the construction of basins and infiltration pits, has further enhanced water-use efficiency and contributed to increased crop productivity. The success of these initiatives is reflected in the positive feedback from farmers, who reported significant yield improvements and expressed optimism about the future of their agricultural activities.

Enhanced food security: The project has made significant strides in enhancing food security for the target communities. The promotion of drought-tolerant crops and resilient livestock varieties has played a crucial role in achieving this outcome. By introducing crops such as sorghum and millet, which are better suited to the semi-arid and arid regions of Zimbabwe, the project has provided farmers with more reliable options for food production.

Despite the challenging conditions of the 2023/24 season, which saw poor rainfall distribution and the effects of El Niño, farmers who adopted these drought-tolerant crops managed to harvest, while those who planted maize experienced significant crop failures. This resilience underscores the importance of promoting agricultural practices and crop varieties that can withstand adverse climatic conditions. The project’s efforts to diversify income sources through the introduction of resilient livestock breeds, such as the hybrid Kalahari-Matabele breed, have also contributed to improved food security.
In addition to crop and livestock diversification, the project has supported the establishment of Village Savings and Loan (VSL) groups, which provide financial support to farmers and enhance their ability to invest in agricultural inputs and technologies. These groups have empowered farmers to better manage their resources, improve their livelihoods, and ensure a stable food supply for their families.

Empowered communities: The project has been effective in empowering communities by fostering local ownership and ensuring the sustainability of its interventions. Training and capacity-building programs have equipped farmers and community members with the skills and knowledge necessary to manage and sustain the project's initiatives. The establishment of community-based irrigation management committees has been a key component of this empowerment process.
These committees are responsible for overseeing the maintenance and operation of the irrigation systems, ensuring that the infrastructure remains functional and effective in the long term. The project has provided targeted training to these committees, covering areas such as irrigation management, water conservation, and conflict resolution. By building local capacity and fostering a sense of ownership, the project has created a strong foundation for the continued success of its interventions.
The participatory approach taken by the project, which involves engaging farmers in the planning and implementation of activities, has further strengthened community empowerment. By involving community members in decision-making processes and ensuring that their voices are heard, the project has fostered a sense of collective responsibility and commitment to achieving its goals.

Innovative research and development: The project's innovation platforms have been instrumental in driving research and development efforts aimed at improving agricultural practices and resilience. These platforms bring together researchers, agricultural extension services, private sector partners, and farmers to develop and share knowledge and innovations. The participatory varietal selection process, which involves farmers in the evaluation and selection of new crop varieties, ensures that the innovations are relevant and beneficial to the local context.

Significant progress has been made in developing new crop and livestock varieties that are better suited to the local climate and agricultural conditions. For example, the project has introduced new small grain varieties and resilient livestock breeds that can withstand temperature fluctuations and irregular rainfall

patterns. These innovations are crucial for building climate resilience and enhancing agricultural productivity.

The investments in laboratory infrastructure and state-of-the-art technologies have further strengthened the research capacity of the innovation platforms. The project's support for laboratory upgrades and the procurement of advanced equipment has enabled researchers to conduct high-quality research and develop new technologies that can be transferred to farmers. This collaborative approach to research and development ensures that the project's interventions are based on the latest scientific knowledge and best practices.

Increased access to climate information

The Participatory Integrated Climate Services for Agriculture (PICSA) approach has proven highly effective in enhancing farmers' access to critical information for planning agriculture (and non-agricultural) activities and enhancing their resilience to climate change. By combining weather and climate information with agricultural planning, PICSA has started empowering farmers to make informed decisions about crop selection, planting times, and resource management. The participatory aspect ensures that local knowledge and community input are integral to the process, fostering greater trust and adoption of the strategies. Discussions with farmers and AGRITEX staff revealed that PICSA has fostered greater adaptive capacity among farming communities, making it a valuable tool. Beneficiaries appreciated receiving the advisories in vernacular through their local AGRITEX officers. For AGRITEX, the synergy with MSD has been value-adding, giving them access to current climate and weather information that positively influences their engagement with farmers. Given the project's thrust to adopt new climate-smart agricultural practices, PICSA provides an evidence base to motivate farmers on the need for change.

Enhanced collaboration with state and non-state actors

Collaborating closely with government departments such as the Meteorological Services Department (MSD), AGRITEX (Agricultural Technical and Extension Services), the Department of Irrigation (DOI), the Zimbabwe National Water Authority (ZINWA), and the Department of Research & Specialist Services (DR&SS) has significantly enhanced the effectiveness of the climate change mitigation and adaptation initiatives in the 15 districts. These partnerships have ensured that the project leverages existing governmental and non-government expertise, resources, and infrastructure, leading to more comprehensive and coordinated efforts. Government involvement has also facilitated the integration of project initiatives into national policies and frameworks, ensuring sustainability and scalability. This collaborative approach has renewed a unified response to climate challenges. Further, the coordinated response promotes the dissemination of accurate climate information and supports the implementation of best agricultural practices with support from expert government departments. The transformative partnerships could improve resilience and productivity in the agricultural sector in the short to medium term.

UNDP has strategically partnered with WFP to implement the Participatory Integrated Climate Services for Agriculture (PICSA) program. Developed by the University of Reading, PICSA aims to empower farmers to make well-informed decisions by utilizing locally specific weather and climate information along with participatory decision-making tools. The process involves agricultural extension staff and other intermediaries, such as agricultural colleges and NGOs, working with groups of farmers before the agricultural season begins. This collaboration initially involves analyzing historical climate information and utilizing participatory tools to select crop, livestock, and livelihood options best suited to individual farmers' circumstances. Subsequently, just before and during the season, extension staff and farmers consider the practical implications of seasonal and short-term forecasts on the plans farmers have made. PICSA is a unique communication and extension approach that has been successfully implemented in multiple countries through various organizations.

WFP has a long-term contract with the University of Reading. Building on this contractual arrangement, WFP is supporting the PICSA in Zimbabwe. UNDP partnered with WFP through a UN-UN agreement to roll out PICSA in 3 districts. WFP supported the training of experts in 2024 to support the upscaling

of PICSA in UNDP GCF districts and as a sustainability strategy of the project. To effectively roll out and sustain PICSA, WFP uses the hub and spoke approach, where a national-level pool of experts is trained on PICSA as trainers of trainers (ToTs). The experts were drawn from the Ministry of Agriculture, Lands, Forestry, Water and Rural Resettlement (MALFWRD), Universities (GZU, MSU, Bindura, MSD and CUT), research institutions implementing the innovation platforms, as well as other Green Climate Fund (GCF) project implementing partners.

The ToTs facilitated provincial and district-level training, primarily for AGRITEX Officers, who cascaded it to the farmers through the farmers' field schools (FFS). FFS are manned by lead farmers who further cascade the training to follower farmers. Such a value-adding approach assures sustainability and wider coverage across the targeted areas. The Government of Zimbabwe through the GCF programme has initiated efforts to further institutionalize the PICSA approach by incorporating it into the agricultural colleges and universities curriculum and related training. The UNDP-WFP partnership is also broadening the scope of the current climate change efforts in the country through Anticipatory Action-oriented interventions whose thrust is to continue empowering farmers through timely access to climate and weather information to guide their agricultural choices. **Efficiency in implementation**

The efficiency of the project's implementation is influenced by several critical factors that determine how well the project can achieve its objectives within the given timeframe and budget. These factors include adaptive management, competitive procurement processes, capacity building, and resource utilization. Understanding and optimizing these elements are essential for maintaining the project's momentum and ensuring its success.

Adaptive management: Adaptive management has been a cornerstone of the project's approach, allowing it to stay relevant and effective in the face of new information and challenges. This strategy involves a continuous process of learning, adjusting, and refining interventions based on real-time feedback and evolving circumstances. For instance, when feasibility studies revealed that five of the 21 initially planned irrigation sites were contextually challenging in technical and economic terms, the project quickly adapted. In four of the five schemes, alternative off-take locations in the same water source were identified, coupled with the re-design of the water supply systems for the scheme. This was discussed and cleared by GCF. Such flexibility has ensured that the project remains on track despite unforeseen challenges. The project has also continued to adjust the civil works based on fluctuating rainfall, drought conditions, and other climate-related factors. By incorporating new data and feedback from field operations, the project has implemented more effective and context-specific solutions. This ongoing refinement process has also helped optimize resource allocation, improve intervention strategies, and ultimately enhance the overall effectiveness of the project. Over the last three implementation years, the project has developed and implemented activities based on its approved adaptive management and acceleration plans. GCF has approved both plans.

Competitive Procurement: The use of competitive procurement processes has been instrumental in ensuring cost-effectiveness and high-quality of inputs. By soliciting bids from multiple suppliers and contractors, the project can secure the best possible terms and prices for the goods and services it needs. This approach not only helps manage costs but also ensures that the project receives high-quality materials and services that meet its standards.
However, there is room for improvement in the efficiency of these procurement processes. The current system involves multiple layers of approvals and coordination between the United Nations Development Programme (UNDP) and the Government of Zimbabwe (GoZ). These layers can cause delays and complicate the procurement timeline. Streamlining these processes and enhancing coordination between UNDP and GoZ entities can significantly reduce delays, ensuring that materials and services are delivered on time and that project activities can proceed as planned.

Capacity Building: Capacity building is another critical factor in the project's implementation efficiency. Ongoing training and support for farmers and government institutions are essential for the sustainability of the interventions. The project's investment in capacity building has laid a strong

foundation for long-term success, equipping stakeholders with the knowledge and skills they need to maintain and expand the project's benefits.
The training programs cover various aspects, including climate-smart agricultural practices, irrigation management, environmental and social safeguards, and the use of advanced technologies. These programs are designed to empower local communities and institutions, fostering a sense of ownership, accountability and responsibility. Continuous efforts in capacity building are necessary to address evolving challenges and ensure that the knowledge and skills remain relevant and up-to-date. By building local capacity, the project enhances its sustainability and reduces dependence on external support.

Resource utilization: Efficient resource utilization is critical for the timely implementation of project activities. However, the project has faced challenges in this area, particularly with delays in disbursements and procurement processes. These delays have impacted the execution of critical activities, slowing down progress and affecting the overall timeline. Improving the efficiency of resource utilization involves streamlining financial processes, ensuring timely disbursement of funds, and enhancing procurement procedures. Addressing these issues can accelerate project implementation, allowing activities to proceed as planned and ensuring that resources are used effectively. Efficient resource utilization also involves regular monitoring and evaluation to identify and address any bottlenecks or inefficiencies in the system.
While the project has demonstrated significant achievements, several challenges need to be addressed to enhance its effectiveness and efficiency. Identifying and addressing these challenges is crucial for optimizing project performance and achieving the desired outcomes.
Procurement delays have been a significant challenge for the project, causing setbacks in the implementation of critical activities. The lengthy procurement processes, involving multiple layers of approvals and coordination between UNDP and GoZ entities, have slowed down the delivery of materials and services. These delays can hinder the progress of construction, training programs, and other essential activities.
To enhance efficiency, it is crucial to streamline procurement processes and improve coordination between UNDP and GoZ entities. This can involve simplifying approval procedures, reducing bureaucratic hurdles, and ensuring clear communication and collaboration between all parties involved. By addressing procurement delays, the project can ensure timely delivery of materials and services, maintaining momentum and adhering to the planned timeline. However, Zimbabwe is categorized as a high-risk country. Any efforts to expedite processes should be handled with the caution they deserve.

In addition, staffing shortages and capacity gaps have affected the operation of some facilities and the full utilization of procured equipment. These gaps can hinder the project's ability to implement activities effectively and achieve its objectives. Addressing these issues through targeted recruitment and continuous capacity building is essential.
Recruiting qualified personnel to fill staffing gaps and providing ongoing training and support can enhance the project’s capacity to implement activities efficiently. This includes training staff in the use of advanced technologies, irrigation management, and climate-smart agricultural practices. By building a skilled and knowledgeable workforce, the project can improve its operational efficiency and ensure that interventions are implemented effectively.
Moreover, delays in financial disbursements have impacted the timely execution of project activities. These delays can disrupt the flow of funds needed for procurement, construction, and training programs, slowing down progress and affecting the overall timeline.

Ensuring timely co-financing and addressing bureaucratic hurdles can improve resource utilization and accelerate project implementation. This involves streamlining financial processes, ensuring prompt disbursement of funds, and enhancing coordination between funding entities. High-level engagements with GoZ (including the Ministry of Finance and Economic Development) to address financial disbursement delays could help the project maintain a steady flow of resources, ensuring that activities proceed as planned and that objectives are achieved on time.

Finally, the transition to efficient use of water resources and climate-resilient agricultural practices is ongoing, and continued support and training for farmers are necessary to ensure successful adoption and

long-term impact. Operational challenges such as inadequate infrastructure, limited access to resources, and varying levels of farmer engagement can affect the implementation of these practices.

4.4 Progress Towards Results

Progress toward outcomes analysis

Outcomes: Increased resilience of smallholder livelihoods; Enhanced water and food security of the most vulnerable in Southern Zimbabwe

Table 5 details the project status at the time of the interim evaluation.

Table 5: Progress toward outcomes analysis

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcomes: Increased resilience of smallholder livelihoods; Enhanced water and food security of the most vulnerable in Southern Zimbabwe	***Indicator 1*** - Total number of direct and indirect beneficiaries	Direct 0 males 0 females 0 total beneficiaries Indirect 0 males 0 females 0 total beneficiaries	None	- *Direct* 108,724 males 108,724 females 217,448 total beneficiaries *Indirect* 351,700 males 351,700 females	*Direct* *198,372 Male* *221,452 Female* *419,824 total beneficiaries* *Indirect* *331,313 males* *369,859 females*	*Direct* 271,810 males 271,810 females 543,620 total beneficiaries *Indirect* 879,250 males 879,250 females		Achieved	Based on the cumulative project-reported numbers for 2023, the total number of direct beneficiaries has been reached, whereas the number of reported indirect beneficiaries falls slightly behind
	Indicator 2 - Number of beneficiaries relative to the total population	6% of the total population of the three provinces	None	9.6% of the total population of the three provinces	29%	24% of the total population of the three provinces		Achieved	Cumulatively, a total of 1,120,996 (529,685 Male, 591,311 Female) people have benefitted from the project, 29% of the total population of the 3 provinces.

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
	Indicator 3 - Number of males and females benefiting from the adoption of diversified climate-resilient livelihood options (incl. fisheries, agriculture, tourism etc.)	Male: 0 Female: 0	None	12,500 males; 12,500 females; 25,000 total	25,983 males 47,651 females 73,634 total	40,900 males; 40,900 females; 81,800 total (75,900 on rain-fed; 5,900 on irrigated		Achieved	The project has reported 47,651 female, 25,983 male, and 73,634 total beneficiaries. These numbers are likely to have been achieved with the extension services provided and the support received so far from the other completed project activities.
	Indicator 4 - Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses	Male: 0 Female: 0	None	1,250 males; 1,250 females; 2,500 total	Male: 464 Female: 444 Total: 988	2,850 males; 2,850 females; 5,900 total		Not on target to be achieved	The sub-optimal performance is mainly due to a nine-month cumulative delay in the clearance of covenant 10.02 by GCF, delays caused by COVID-19, and inadequacies in the initial feasibility and design studies. According to the affordability analysis, there is a high likelihood of completing 15 of the 21 irrigation schemes. The project has initiated and implemented a budget optimization strategy and acceleration plan, within the confines of a carefully thought-through adaptive management lens. These efforts show positive results, but the project needs to urgently find the remaining budget to fund the remaining irrigation schemes.
Project Outcome 1 A6.0 Increased generation and use of climate information in decision-making	***Indicator 6 -*** ~~Use of~~ Capacity for generation of climate information products/services in decision-making in climate-sensitive sectors	25% between 75% & 100% competency, 29% up to 74% competency, 29% up to 49% competency & 18% up to 24% competency	None	155 AGRITEX staff score at least 75% on two out of the four criteria	65 of AGRITEX staff assessed scored 75 percent and above competence on two out of the four criteria.	155 AGRITEX staff in targeted districts score at least 75% across all four criteria		On target to be achieved	An online survey with AGRITEX officers drawn from 14 of the 15 GCF districts was conducted to assess the capacity of AGRITEX in four competency areas12. Staff capacity was assessed on a scale of one and 100 calculated based on self-reported competence and confidence for each of the four competency areas. The capacity of staff was ranked from 0 to 100 and, based on the average for all four competency areas, the proportion of staff falling within each of the four bands was computed. In 2023, 1.4% of AGRITEX officers were ranked at up to 24% competency across the four areas assessed. A further, 7.9% of respondents were ranked at up to 49% and 50.7% up to 74% competency level. 40% (65) of AGRITEX staff assessed scored 75% and above competence on two out of the four criteria.

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
	Indicator 7 - % of direct beneficiaries consistently using climate information/products and services in farming decisions	0 (as approved by GCF) 33% (as per Baseline Evaluation)	None	40% of GCF direct beneficiaries	45%	80% of direct GCF beneficiaries		Achieved	Most farmers who have been interviewed during the evaluation have recognized using climate information provided by the AGRITEX staff in their farming decisions. The project has reported that, 49.74% Female 42.74% Male 45.14% Total are consistently using climate information.
Project Outcome 2 Strengthened adaptive capacity and reduced exposure to climate risks	***Indicator 8 -*** Use by vulnerable households, communities, businesses and public-sector services of Fund supported tools, instruments, strategies, and activities to respond to climate	0-25%- 26 26-50%-52 51-74%-21 **75-100%-1**	None	30% of GCF direct beneficiary farmers (approx. 32,617 HHs; information collected through sampling) score at least 75%	49%	60% of GCF direct beneficiary farmers (approx. 65,234 HHs; information collected through sampling) score at least 75%		Achieved	The information generated by the Met and hydro stations is being used by most farmers and AGRITEX officers. The following numbers, reported by the project show that the targets were hit: 0-25%- 1.4 26-50%-10.7 51-74%-38.4 75-100%49.4 This scorecard is not only focused on CIS but also looks at community-level engagement, CRA, O&M. Source: Post-season assessment report
Project Output 1 - Increased access to water for agriculture through climate-resilient irrigation systems and water resource management	***Indicator 10 - No.*** of hectares under climate-proofed irrigation	11,066 ha under irrigation out of a potential 25,285 ha in Southern Catchments / 15 districts of the three provinces	None	1,500 additional ha under climate-proofed irrigation	568 ha, see comment.	1,786 additional ha under climate-proofed irrigation		Not on target to be achieved	Civil works have been completed in seven out of the planned 21 irrigation schemes, which cover 568 hectares. Affordability analyses indicate that the project will be able to restore 11 and develop six irrigation schemes. It appears the mid-term target was overly ambitious considering the gestation period of civil works which can take up to 12 months from design, procurement, construction, and operationalization. At the time of the evaluation, none of the irrigation schemes, including those where civil works had been completed, were in production. The project assumed that funding for production would come from the government. However, the treasury has not released funds on time. A review of the critical path related to the irrigation schemes suggests the need to reconsider the approach to production financing. The process could be accelerated if the GCF or another development partner could take on this role. The project needs to lower the target of irrigation schemes (correlated with the number of hectares) if additional funding is not found urgently.

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
									Source: Project report and site visits
	Indicator 11 - Number of rain-fed hectares exhibiting water harvesting and climate-resilient water management measures	0	None	30,000 ha	54,284 ha	75,900 ha		Achieved	In most of the farmers' fields visited it was evident that several technologies aimed at improving water management were being implemented. A reported total of 54,284 hectares are exhibiting water harvesting and climate-resilient water management.
Project Output 2 - Scaled up climate-resilient agricultural production and diversification through increased access to climate-resilient inputs, practices, and markets	***Indicator 12*** - Average level of production increases (%) per hectare in newly irrigated hectares (tons/ha)	Maize-0.41 t/ha Sorghum-0.55 t/ha Pearl Millet-0.43 t/ha Finger Millet-0.1707 t/ha Cow Pea-0.67 t/ha Groundnut-0.66 t/ha	None	At least 0% (or non-declining) decrease [2] in productivity for GCF beneficiary farmers	0	At least a 25% increase in productivity for GCF beneficiary farmers		On target to be achieved	Production in irrigated sites has not yet started due to several reasons discussed earlier. The project will be able to monitor and report on this indicator once the schemes are in production. At the time of this evaluation, the increase has not taken place. Nevertheless, the project will likely be able to achieve this indicator once the irrigation schemes become operational. NB: Interviews with beneficiaries of the irrigation schemes suggested that most of them will likely plant maize and wheat, among other crops. The project may consider tweaking this indicator to capture the preferred crops.

[2] With no interventions, it is expected that climate change/variability will lead to yield declines below the baseline (see feasibility study Section 1.7). Climate change adaptation will initially lead to at least a stabilization of yields in the first half of the project across the different crops.

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
	Indicator 13 - Number of smallholder farmers implementing climate-resilient agricultural practices/cropping systems	Male: 0 Female: 0	None	30% of beneficiary farmers practising CRA on rain-fed and irrigated land score at least 75% across all four criteria	49%	60% of beneficiary farmers practising CRA on rain-fed and irrigated land score at least 75% across all four criteria		Achieved	This target has been achieved. The farmers visited during this evaluation all exhibited a high level of understanding of climate-resilient agricultural practices. Source: Project-initiated survey.
Project Output 3 - Improved access to weather, climate and hydrological information for climate-resilient agriculture	***Indicator 14*** - Numbers of operational monitoring stations in key catchments and VIS systems.	47 operational Manual Synoptic Stations and 17 part-time Manual Synoptic Stations in key catchments.	None	Additional 12 AWS, 10 low-cost weather stations, additional 10 hydro installed	12 AWS, 10 low-cost weather stations (ARG), 7 hydro-stations	Additional 12 AWS, 10 low-cost weather stations, and additional 10 hydro fully functional and maintained		Achieved	12 AWS, 10 low-cost weather stations (ARG), 7 hydro stations were reported and confirmed by MSD. Source: MSD
	Indicator 15 - Number of smallholders receiving new advisories and warnings developed for both agriculture and water management and disseminated through media, including SMS and radio.	No smallholder farmers receiving regular tailored weather information from Media.	None	180,000 people (36,000 rural households) in 15 districts have access to weather 90,000 males 90,000 females (50 % women)	159,095 people (74,775 Male, 84,320 Female)	543,620 people (108,724 rural households) in 15 districts have access to weather information 271,810 males 271,810 females		On target to be achieved	This is 88% of the set mid-term target, (i.e., 159,095 people (74,775 males, 84,320 females are receiving the advisories. Source: The post season assessment carried out after 2022/23 season.

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Gender Action Plan	***Indicator 15*** - Increased % of women's membership in irrigation management committees	0	None	All the 21 irrigation schemes supported by the project have gender parity in IMC membership, and parity is consistently maintained throughout the project period.	All the 8 irrigation schemes have gender parity.	All the 21 irrigation schemes supported by the project have gender parity in IMC membership, and parity is consistently maintained throughout the project period.		Achieved	It was observed that women were part of the irrigation management committees in all areas visited. The project required all IMCs to be gender-balanced, which was indeed the case
	Indicator 15 - Number of women in strategic leadership positions in IMCs.	0	None	At least 50% of the strategic positions in IMCs (Chair, Treasurer, Secretary, O&M, Marketing) are occupied by women.	At least 50% of the strategic positions in the schemes are occupied by women	At least 50% of the strategic positions in IMCs (Chair, Treasurer, Secretary, O&M, Marketing) are occupied by women.		Achieved	This target has been achieved based on the observations made by the evaluation team

Project Strategy	Indicator	Baseline Level	Level on 1st APR (self-reported)	Midterm Target	Midterm result (Cumulative)	End of project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
	Indicator 15 - Number of women and men trained in financial management, marketing, and business development, with a specific focus on women targeting existing women producers groups and savings and loans groups.		None	At least 4,110 women on dryland farms and irrigation schemes receive women-targeted training under a financial empowerment training program, of which at least 30% are women from female-headed households.	3,816			Achieved	Women form 3,816 (76%) of the 4,963 members in the formed 386 groups, part of women economic empowerment. Village saving and lending groups have been formed after training and financial management and business development are the key trainings layered on VS&L in 2024
	Indicator 15 - Number of women and men smallholder farmers participating in the planned 75 innovation platforms to build the climate-resilience and productivity of horticulture value chains;		None	At least 50% participants in innovation platforms are women of which at least 30% are women from female-headed households	66% of the beneficiaries are women.			Achieved	

NB: Due to the nature of the mid-term evaluation, the IE team did not conduct a robust, whole-of-project verification of the reported beneficiary numbers across all sites. This should be prioritized in the short to medium term.

While the completion of the 21 irrigation schemes was a central pillar of the project, significant progress toward the project's core objectives—namely, increasing the resilience of smallholder livelihoods and enhancing water and food security—was partially achieved through several complementary systems and technical investments. These efforts provided a strong foundation for resilience-building, even without the full implementation of the irrigation schemes. The efforts include:

Governance structures
The establishment of governance structures was a critical step toward sustainable and equitable management of agricultural resources. These structures, which included IMCs and other farmer committees, played a vital role in improving the capacity of communities to manage water resources, make collective decisions, and handle disputes effectively. By strengthening governance at the local level, the project helped lay the groundwork for long-term resilience, ensuring that communities are better positioned to manage irrigation infrastructure and dry-land resources sustainably.

Capacity building and training
Another key investment was in the training and capacity building of farmers, extension officers, and local leaders. Training sessions focused on water management, conservation agriculture, and climate-smart farming techniques, which have already yielded measurable improvements in productivity and resource management, despite the incomplete irrigation schemes. Smallholder farmers were equipped with the skills and knowledge needed to adapt to climate variability and utilize limited water resources efficiently. This knowledge transfer allowed them to enhance productivity in rain-fed agriculture, thus improving food security, albeit the stern stress test in the 2023/24 agricultural season.

Initial land preparatory works
Smallholder farmers-initiated land preparatory works within the planned irrigation schemes. This included clearing land, constructing basic infrastructure, and planning for water distribution systems. These preparatory efforts are essential not only for future irrigation operations but also for current agricultural activities. For example, farmers are now more prepared to use available land efficiently, even in the absence of full-scale irrigation, through dryland farming and improved soil management practices. This has led to incremental improvements in yields and has reduced the risk of crop failure due to droughts or other climate shocks.

Innovation platforms
The innovation platforms created through the project have provided a collaborative space for stakeholders, including farmers, local government, private sector actors, and researchers, to share best practices and develop innovative solutions to agricultural challenges. These platforms have facilitated the exchange of knowledge about sustainable farming techniques, the use of drought-resistant crop and livestock varieties, and alternative water harvesting methods. As a result, farmers have been empowered to implement these innovations collaboratively, contributing to improved food security and livelihoods.

Systems thinking and integration
The project's holistic approach to resilience-building, focusing not just on physical infrastructure but also on governance, capacity building, and innovation, has ensured that higher-level project results are achieved even under sub-optimal conditions. By investing in human capital and community-based resource management systems, the project has made considerable strides in strengthening the adaptive capacity of vulnerable communities. This integrated approach means that while the irrigation schemes remain incomplete, communities are already experiencing improved resilience to climate variability and shocks.

In summary, while the completion of the irrigation schemes is an important long-term goal, the project's systems and technical investments have ensured that higher-level objectives related to resilience and food security are still being met. Governance structures, training, land preparation, and innovation platforms have already empowered local communities to improve agricultural productivity and resource management. These efforts will continue to yield benefits as irrigation infrastructure is phased in, ensuring that the project's impact is both sustainable and scalable.

Remaining barriers to achieving the project objectives.

The project faces several barriers that hinder its ability to achieve its objectives fully. These barriers include financial constraints, procurement challenges, infrastructure deficiencies, institutional capacity gaps, cultural and mindset shifts, operational hurdles, and project management challenges. This comprehensive analysis examines each of these barriers in detail and explores potential strategies to address them.

Financial barriers and budget management: One of the most pressing barriers is the financial shortfall affecting the project's irrigation schemes. Initially, the project faced a $6 million shortfall, partly due to the discrepancy between project conceptualization and the funding agreements with the Green Climate Fund (GCF). New feasibility studies have further identified additional cost drivers, exacerbating the budget constraints. Delays in the project's startup have led to unexpected cost increases for local and international procurements of laboratory and irrigation equipment. This financial gap makes it difficult to satisfy the needs of all 21 planned schemes, with preliminary indications suggesting that current funding will suffice for only 15 schemes. Significant schemes such as the proposed 600 Ha Kondo-Rimbi scheme may fail to take off due to these financial limitations. The PMU, with guidance and approval from the Steering Committee, has implemented an optimization strategy. This includes deprioritizing irrigation schemes with the highest cost per hectare and reallocating some budget lines to GoZ co-financing, such as land clearing at selected irrigation schemes. The project is currently exploring potential partnerships with the private sector and other development partners to support the necessary irrigation infrastructure. Additionally, the PMU and UNDP Country Office have submitted three concept notes (including AfDB CAW Adaptation, IKI, and UN Resilience Appeal) to address the funding gap. None of these requests had materialized at the time of the evaluation. Additionally, delays in the Government of Zimbabwe's (GoZ) co-financing contributions have impacted several schemes. For instance, schemes like Zvinyaningwe and Bwanya have been affected by the delayed financial disbursements from the GoZ. At the mid-term stage, UNDP has provided around 30% of the planned amount of $1,205,000. This is primarily due to a reduction in TRAC funding for the country. The sub-optimal contributions by UNDP affect two main activities: women's economic empowerment and logistics. Given the contractual nature of the project, UNDP is expected to satisfy its commitment. Overall, these financial challenges necessitate a thorough re-evaluation of the project's budget and the exploration of alternative funding sources or cost-saving measures to ensure the project's sustainability and effectiveness.

Procurement and administrative challenges: Procurement delays have been a significant bottleneck for the project. The challenge of importing essential equipment, such as pump and pivot systems, has resulted in delays in completing critical schemes like Nyahombe. Civil works for several other schemes, including Mhakwe, Vimbanayi, Farai, Mudzimwa, and Musirizwi, are still under procurement. The UNDP Country Office Procurement Unit has taken longer than anticipated to complete these actions, causing further delays. Due to the time lag between project conceptualization and implementation, coupled with inherent design inadequacies, the project had to conduct new feasibility and design studies. Five feasibility studies remain outstanding. There was a six-month delay in the approval of Environmental and Social Management Plans (ESMPs) by GCF. The Kondo-Rimbi ESMP is being finalised.

These procurement and administrative hurdles highlight the need for a more streamlined and efficient procurement and administrative process. Enhancing coordination between UNDP, GoZ, and GCF, setting clear timelines, and improving communication channels can help mitigate these delays. Additionally, establishing contingency plans to address potential procurement disruptions can ensure that the project remains on track.

Infrastructure gaps: Infrastructure deficiencies have hindered project implementation at various sites. For example, electricity infrastructure gaps have affected the progress at sites such as Bwanya and Zvinyaningwe. Civil works are completed at sites like Pikinini-Jawanda and Bindamombe, but these sites need to be stumped and ripped to start production. The lack of adequate infrastructure not only delays project activities but also increases the risk of failure in achieving the desired outcomes. Addressing these infrastructure gaps requires a coordinated approach involving the relevant stakeholders. Investing in infrastructure development, securing reliable power sources, and ensuring the timely completion of civil works are critical steps. Additionally, regular maintenance and upgrades of existing infrastructure can prevent future disruptions and support the project's long-term sustainability. The establishment and capacity building of IMCs should partially mitigate this inherent risk.

Institutional capacity: The project has invested significantly in establishing laboratory infrastructure at Makoholi, Esigodini, and Matopos, with the GoZ financing the required upgrades and GCF procuring state-of-the-art equipment. However, there is a need to invest in the requisite capabilities for all laboratories. GoZ has activated its recruitment processes so that the sites have qualified laboratory technicians. In the meantime, MRI is providing technical assistance to Makoholi, Chisumbanje, and Esigodini. Building institutional capacity is crucial for the project's success. This involves recruiting qualified personnel, providing ongoing training and support, and ensuring that institutions have the necessary resources to operate effectively. Strengthening institutional capacity can enhance the project's ability to generate new knowledge, technologies, and support services, thereby improving its overall impact.

Cultural and mindset shifts in adopting new technologies and approaches: One of the significant barriers to achieving the project's objectives is the cultural and mindset shift required to adopt new technologies and agricultural practices. The targeted districts have traditionally relied heavily on maize production, and shifting to small grains requires significant changes in farming practices and attitudes. Focus group discussions revealed that land preparation using hoes is very labour-intensive, especially for women, and manual threshing of small grains is equally challenging. The project has distributed equipment like basin diggers and threshers to alleviate some of these burdens, but the thrust is for farmers to procure such equipment independently. However, given the current food insecurity, most farmers – as individuals or groups - are not well-resourced to make these investments. Additionally, many farmer plots are not secured from livestock, necessitating the sourcing of dead mulch every farming season, which is a considerable burden. The project promotes live mulching using cowpeas and velvet beans, but adoption remains limited due to resource constraints.
Promoting new technologies and practices requires a concerted effort to demonstrate their benefits and address farmers' concerns. Showcasing successful examples, organizing field days, and working closely with innovation platforms can help build confidence in these new approaches. Additionally, integrating indigenous technical knowledge (ITK) with weather information-related advisories can make the recommendations more relatable and acceptable to farmers.

Operational barriers: The project relies heavily on ward-level Agricultural Extension Officers (AEOs). The constrained fiscal space has made it difficult for GoZ to consistently fuel motorbikes for AEOs and cover their communication costs. District and provincial officers are also constrained in providing on-site support and supervision due to budgetary limitations. These constraints are supposed to be covered under the government co-financing budget, but the government is financially constrained. Furthermore, implementing partners like Chisumbanje face budgetary constraints, limiting their ability

to visit communities and fulfil their mandates effectively. Addressing these operational barriers requires securing adequate funding for field operations, providing logistical support to AEOs, and ensuring that implementing partners have the necessary resources to carry out their activities.

Project management challenges: The project has adopted an accelerated plan to address delays and optimize project planning and execution. However, this adaptive management approach relies on efficiency at the UNDP Project Management Unit (PMU), and government levels. Delays in disbursements, project document reviews, approvals, and procurements need to be minimized to achieve the project targets by 2027. The Ministry of Finance and Economic Development is not represented in the Steering Committee which makes it challenging to ensure they are kept abreast of project developments. Including the Ministry of Finance and Economic Development could facilitate timely reporting of co-financing and financial disbursements to the project's responsible parties and address bureaucratic hurdles that may impede project progress. Additionally, enhancing the efficiency of project management processes, improving coordination among stakeholders, and leveraging adaptive management strategies can help overcome these challenges.

Impact of COVID-19 on project implementation

The COVID-19 pandemic brought about unprecedented disruptions worldwide, impacting various sectors, including agricultural projects. The climate-proofing of irrigation schemes under the project in Zimbabwe was no exception. While the project faced significant challenges due to the pandemic, it also capitalized on unique opportunities to adapt and continue progressing toward its goals. This analysis explores the multifaceted impact of COVID-19 on the project, highlighting the challenges encountered, the strategies employed to mitigate these challenges, and the opportunities that arose during this period.
The pandemic significantly disrupted global supply chains, leading to delays in the delivery of essential irrigation equipment, materials, and other project inputs. These delays affected the installation and maintenance of irrigation systems, critical components for the project's success. The increased cost of materials and transportation further strained the project budget, necessitating adjustments and reallocations to accommodate these unexpected expenses. For example, the procurement of advanced irrigation systems and laboratory equipment faced delays, impacting the timeline for establishing new irrigation schemes and upgrading research facilities.
The project's implementation timeline was severely affected by the limitations on field activities due to lockdowns and travel restrictions. The recruitment of key project staff, including the Project Manager and the Monitoring and Evaluation (M&E) Officer, was delayed, which in turn postponed critical activities such as feasibility studies and Environmental and Social Management Plans (ESMPs). The staggered joining dates of other staff members and specialist experts further compounded these delays.
Lockdowns hindered the mobility of project staff and consultants, restricting their ability to conduct on-site assessments, training sessions, and monitoring activities. Health concerns and the need to protect staff and beneficiaries led to temporary halts in project activities, further delaying the implementation timelines. For instance, the planned on-site interactions with farmers for training and capacity building had to be suspended, affecting the timely dissemination of new agricultural practices and technologies.
The economic impact of the pandemic was felt acutely by both government departments and farmers. Government budgets were reallocated to address immediate health and economic needs, reducing the funds available for project co-financing. Farmers experienced loss of income-earning opportunities due to lockdowns and market disruptions, which affected their ability to invest in the new technologies and practices promoted by the project.
This economic strain increased the vulnerability of the project stakeholders, making it challenging to maintain momentum and achieve the desired outcomes. The reduced financial capacity of farmers to adopt climate-smart agriculture practices posed a significant barrier to the project's success.
On another hand, the pandemic necessitated a rapid shift to digital solutions for meetings, training sessions, and workshops. Leveraging digital platforms allowed the project to continue its capacity-building activities despite the physical limitations imposed by the pandemic. This transition increased the reach and frequency of training programs, enabling more farmers and stakeholders to participate remotely.

Virtual training sessions and workshops facilitated continuous knowledge transfer and engagement, ensuring that the project's objectives remained on track. The use of digital communication tools also enhanced the efficiency of project management and coordination among stakeholders.

The adoption of digital communication platforms enabled the project to provide ongoing support and advisory services to farmers. Remote monitoring techniques were employed to track the progress of project activities, gather data, and provide timely feedback. This approach ensured that project implementation could proceed despite the restrictions on physical interactions. For instance, the project utilized mobile phone-based applications and online platforms to disseminate weather information, agronomic advice, and early warning alerts to farmers. This continuous support helped farmers make informed decisions, thereby maintaining agricultural productivity and resilience.

The COVID-19 pandemic underscored the importance of building resilience in agricultural practices. The project's focus on climate-smart agriculture gained greater relevance as the GoZ and farmers sought to mitigate risks and enhance resilience against future shocks. The pandemic highlighted the need for sustainable and adaptive agricultural practices that can withstand various disruptions. The project's initiatives, such as promoting drought-tolerant crops and resilient livestock varieties, became even more critical in ensuring food security and sustainable livelihoods. This was complemented by the launch of the Pfumvudza/Intwasa CSA initiative by the Government.

The pandemic necessitated a more flexible and innovative approach to project management. The project adapted quickly to changing circumstances, implementing adaptive management strategies to address unforeseen challenges. This flexibility improved the project's ability to respond to disruptions and continue progressing toward its goals. Adaptive management involves continuously refining project strategies based on new information and evolving contexts. This approach allowed the project to remain relevant and effective, ensuring that interventions were optimized for maximum impact. The acceleration plan made it possible for the project to cover lost ground.

The pandemic prompted greater government engagement and support for the project as part of a broader economic recovery and food security strategy. The 2023/24 drought has also heightened the focus on agricultural resilience and productivity, enhancing the project's visibility and potential impact. The GoZ's increased involvement facilitated more robust policy support and institutional backing for the project. This enhanced engagement provided opportunities for stronger collaboration between the project and government entities, ensuring that project activities were aligned with national priorities and strategies for economic recovery and food security.

4.5 Project Implementation and Adaptive Management

Management Arrangements

The National Project Coordinator sits within the MLAFWRD. The Project Management Unit (PMU) is resident within UNDP and consists of the Project Manager, Finance and Administration Officer, Monitoring and Evaluation Officer, Project Assistant, Communications Officer, GIS Analyst, and Markets and Financial Inclusion Analyst. Five technical experts support the PMU. The five experts provide technical support to GoZ departments (implementing partners), local communities, and private contractors recruited for the project. The project has a National Steering Committee see Figure 1. The Steering Committee provides strategic leadership. The committee meets annually and on a need basis. Each implementing partner has a dedicated Point of Contact. The National Technical Working Group comprises the Points of Contact and other selected experts. The NTWG provides technical direction to the project. In unison, these governance mechanisms facilitate collaboration and decision-making, including work plan development and approval, related reviews, and timelines. The national work planning process serves as a foundational mechanism for allocating resources (financial, human, technical) to various project activities, including inherent synergies. The PMU, in consultation with the Steering Committee and National TWG, activates contingency plans developed to address unforeseen challenges or disruptions. The annual review and work planning meetings serve as a critical platform to engage all stakeholders. These meetings are complemented by periodically scheduled, theme-focused meetings with select stakeholders, including communities and government departments that are complemented by site and exchange visits. A communication officer has since been recruited, tasked primarily with developing a myriad of complementary approaches and a plan for keeping stakeholders informed about project progress, challenges, and successes. Due to the co-financing arrangements, the

various government departments track their cash and in-kind contributions. The PMU has developed reporting templates to facilitate co-financing reporting. This is complemented by periodic capacity building and reviews. The PMU also tracks the UNDP contribution. Each quarter, the PMU reports on the status of all financial contributions and related expenditures to support the planned activities. The report, submitted to GCF, is the basis for new disbursements from GCF. Zimbabwe is classified as a high-risk country. As such, financial audits are conducted annually. The project has received satisfactory ratings from the auditors. The delays in onboarding other staff placed a significant burden on the existing staff (burnout). Through a coordinated team approach, leveraging government and technical experts, the management arrangements have been effective in shaping the project through its formative stages, albeit with some quality assurance and procurement gaps and or challenges.

Work planning.

The project involves a detailed and collaborative annual review and work planning process. This process includes contributions from all project implementing partners, the National Technical Working Group (TWG), and the Project Management Unit (PMU). The overall aim is to ensure that the project's activities are well-coordinated, effectively implemented, and aligned with both the project objectives and the dynamic operational environment.

The annual review process is a critical component of the project's work planning. It involves assessing the progress made over the past year, identifying any challenges or delays encountered, and planning the activities for the coming year. This review is a collaborative effort involving all project implementing partners, TWG, and the PMU. The findings and recommendations from this review inform the development of the annual work plan.

The Steering Committee plays a pivotal role in the work planning process. It is responsible for reviewing and approving the annual work plan, ensuring that it aligns with the project's strategic goals and objectives. The Steering Committee's approval is crucial for the coordination and synchronization of activities among the various implementing partners.

Each implementing partner's core activities and targets are derived from the overall project work plan. This plan is designed to create synergies and foster collaboration among the partners, leveraging their respective strengths and expertise to achieve the project's objectives.

To operationalize the planned activities, each implementing partner develops a detailed concept note and budget. This document outlines the specific activities they will undertake, the resources required, and the expected outcomes. These concept notes and budgets must be submitted to the PMU for quality assurance, and technical clearance and approved by the IP before implementation can begin. This approval process ensures that all activities are in line with the project's goals and that resources are allocated efficiently.

Despite its strengths, the work planning process has somehow been affected by staff turnover where new Focal Persons with limited comprehension of the project activities come in to replace those that left. The project has addressed this challenge by having alternate focal persons for each of the implementing partners. The development of activity-specific concept notes was perceived as time-consuming.

The project operates in a highly dynamic environment characterized by frequent changes and unexpected challenges. These can range from climatic variations affecting agricultural practices to economic shifts impacting funding and resource availability. As such, the annual review and work planning process must be flexible and responsive to these changes.

The project facilitates implementing partners, experts, and PMU engagements specific to each of the outputs and targeted activities. Given the dynamic operational environment, there is a recognized need for more frequent reviews and adaptations to the implementation plans (and project theory of change as needed). . These more frequent reviews would allow for timely identification of issues, quicker responses to challenges, and more agile adjustments to the work plan.

An area that required significant adjustment was the development of Environmental and Social Management Plans (ESMPs) and the completion of feasibility studies for the planned irrigation sites. The original project documents did not adequately account for these critical components. Consequently, feasibility studies had to be redone for all the planned irrigation sites.

As of the time of the survey, feasibility reports for five of the planned irrigation sites were still pending, and one in draft form. The delay in these studies has had a cascading effect on the project timeline, affecting the initiation and implementation of the associated irrigation schemes.

Financing & Co-Financing

The project is being implemented with financial support from the Green Climate Fund (GCF), which has contributed $26,574,567. The Government of Zimbabwe (GoZ) has provided cash and in-kind contributions totalling $20,038,820, with $14,247,800 in cash and $5,791,020 in in-kind support. Additionally, the United Nations Development Programme (UNDP) has committed $1,205,000, primarily for project management-related costs. The GoZ's in-kind contributions are primarily through staff time from various departments including ZINWA, MSD, DOI, DR&SS, AGRITEX, and MLAWFRD at both national and sub-national levels.

It is important to note that salaries at project design were quoted in USD, but currently, GoZ staff are being paid in local currency. This has led to fluctuations in the value of in-kind contributions due to constant changes in the exchange rate. For instance, in Masvingo Province, the Rural District Council (RDC) developed a road linking the pumping station for the Pikinini-Jawanda Scheme. Additionally, the DOI and RDC are providing a dozer and grader to clear the land, contributing further to the cash support from the GoZ. The GoZ has also exceeded its cash financing for agricultural inputs by $2.4 million. The cash contribution, amounting to approximately $14.5 million at the time of the survey, has primarily been through the procurement of agricultural inputs under the 'Pfumvudza/Intwasa' scheme, which was rolled out across most parts of the country.

However, cash financing for the flagship irrigation schemes is lagging. The total budget for the 21 irrigation schemes was originally estimated at $14 million. At project inception, the GCF committed approximately $8 million, leaving a shortfall of about $6 million. The project has adopted several adaptive measures to accommodate this shortfall, but the available funds are not sufficient to complete all 21 schemes. Preliminary affordability analysis suggests that 15 of the 21 schemes may materialize. This situation has been compounded by the need to conduct new feasibility studies for all the schemes, as the old feasibility reports were inadequate. These new feasibility studies have challenged some of the original assumptions, leading to increased costs. Five of the new feasibility reports are still outstanding. Additional funding will be crucial, especially for large schemes like Kondo-Rimbi.

At the time of the survey, none of the irrigation schemes were ready for production, partly due to delays in co-financing. Project documents show that GoZ is responsible for production-related financing. Civil works in seven of the 21 schemes are complete; however, the schemes have not yet commenced crop production. For example, civil works at Bindamombe, Chizumba, Midlo, and Pikinini-Jawanda are complete, but the schemes but the schemes have not commenced crop production as GoZ additional co-financing to cater for the budget deficit for de-rooting, land preparation, and input starter packs has not yet materialized. This may delay production. At the proposed Kondo-Rimbi scheme, implementation requires upfront financing for baseline infrastructure from the GoZ, which had not been provided at the time of the evaluation. Zvinyaningwe Irrigation Scheme is 100% complete, but the GoZ needs to fulfill its co-financing obligations for power installation. Detailed status information on the irrigation schemes can be found in Table 6.

Table 6: Status of the irrigation schemes

Irrigation Scheme	Province	Scheme status	Existing/New	Total(ha) as per project targets	Status of civil works	Comments
Mwerahari-Nyashan	Manicaland	Alternative	New	96	No Feasibility Report	These schemes required clearance from GCF since they are alternative schmes (replacing original schemes which were no longer consistent with GCF statutes. Approvals were delayed upto 6 months)
Chisavanye	Manicaland	Alternative	New	28	No Feasibility Report	
Mhakwe	Manicaland	Original	Existing	21	Civil works under procurement	Civil works under procurement, delayed at CO procurment unit
Vimbanayi	Manicaland	Original	Existing	35	Civil works under procurement	
Farai	Manicaland	Original	Existing	30	Civil works under procurement	
Mudzimwa	Manicaland	Original	Existing	40	Civil works under procurement	
Musirizwi	Manicaland	Original	Existing	16	Civil works under procurement	
Rimbi	Manicaland	Original	Existing	625	Feasibility study & Designs com	Scheme implementation requires upfront co-financing for baseline infrastructure from GoZ which has not been forthcoming
Gororo-2	Masvingo	Alternative	New	45	Feasibility report (Draft)	
Zvinyanigwe	Masvingo	Original	Existing	50	Civil works ongoing	85% completed. On course to be completed by 31/07/24. Co-financing on de-rooting,land preparation and input starter pack required (this may delay onset of production). Likely delay from co-financing of power line from GoZ
Matezva (Rusununguı	Masvingo	Alternative	New	44	Feasibility study & Designs com	Currently Parked due to high cost/ha & awaiting GCF Clearance
Bindamombe	Masvingo	Original	Existing	34	Civl works completed	All infrastructure installed. Co-financing from GoZ for de-rooting, land preparation and input starter pack (this may delay production)
Bwanya	Masvingo	Original	Existing	156	Civil works ongoing	85% ccompleted. On course to be completed by 31/07/24. Co-financing on de-rooting,land preparation and input starter pack required (this may delay onset of production)
Chizumba	Masvingo	Original	Existing	115	Civil works completed	All infrastructure installed. Co-financing from GoZ for de-rooting, land preparation and input starter pack (this may delay production)
Pikinini/Jawanda	Masvingo	Original	Existing	156	Civil works completed	All infrastructure installed. Co-financing from GoZ for de-rooting, land preparation and input starter pack (this may delay production)
Nyahombe	Masvingo	Original	Existing	180	Civil works ongoing	50% completed. Challenge of importing pump equipment and pivot equipment may result in delay in scheme completion
Mzinyathini	Matabeleland South	Alternative	New	45	No Feasibility Report	The scheme required clearance from GCF since it is an alternative scheme. Approvals from GCF were delayed (approx 6months)
Mankonkoni	Matabeleland South	Original	Existing	60	No Feasibility Report	The scheme is being supported by the IFAD-funded SIRP Project. The project concludes in 2024. They can recommend the climate-proofing work scope left for consideration based on available funds
Masholomoshe	Matabeleland South	Original	Existing	39	Civil works completed	
Masiyapambili	Matabeleland South	Original	Existing	20	No Feasibility Report	Currently parked due to budgetary constraints
Midlo	Matabeleland South	Original	Existing	18	Civil works completed	100% completed. All infrastructure installed. Co-financing from GoZ for de-rooting, land preparation and input starter pack (this may delay production)

Overall, the project has had to prioritize irrigation schemes based on feasibility studies, related costs per hectare, and co-financing contributions. As shown in Table 6, some schemes have been completely shelved due to budget constraints. Additionally, five new schemes had to be selected as the originally chosen ones no longer conformed to the GCF selection criteria and had to be replaced.

The UNDP's contribution to the project is also behind schedule. At the time of the evaluation, UNDP had only contributed 30% of its expected share (targeted at about 50% by the mid-way point of the

project). These delays have affected Activity 2 (women's empowerment) and other logistical aspects of the initiative. The reduction in TRAC funding for the UNDP country office may partly explain the status quo.

There has been one major budget revision to date to accommodate changes such as staffing requirements (e.g., initially having to hire an international Project Manager and a communication specialist). These changes have been approved by the GCF.

Coherence in climate finance delivery with other multilateral entities

The project demonstrates significant coherence in climate finance delivery by complementing and aligning with other multilateral initiatives within the country. This alignment is particularly evident in the integration of the GCF project's objectives with those of the United Nations Development Programme (UNDP), which also emphasizes sustainable development and climate resilience. The collaboration between GCF and UNDP in co-financing and managing this project ensures that resources are effectively utilized and that their combined efforts reinforce the impact of climate-smart agricultural practices, irrigation development, and capacity building among smallholder farmers. The project's alignment with UNDP's strategies on poverty reduction and sustainable development amplifies its overall effectiveness and reach.

Moreover, the project aligns with initiatives supported by other multilateral entities such as the World Bank and the African Development Bank (AfDB), both of which have significant investments in agricultural development and climate resilience in Zimbabwe. For instance, the World Bank's Zimbabwe Reconstruction Fund and AfDB's projects aimed at improving water infrastructure and agricultural productivity share common goals with the GCF project. By addressing the same sectors—irrigation infrastructure, sustainable farming, and community resilience—these projects collectively enhance the overall capacity of Zimbabwe to adapt to climate change. The coordination among these multilateral entities helps avoid duplication of efforts, maximizes resource utilization, and ensures a cohesive strategy toward achieving national and international climate goals.

The coherence is further demonstrated through the alignment with Zimbabwe's national strategies and policies on climate change and sustainable development. The project's objectives resonate with the National Climate Policy and the National Climate Change Response Strategy (NCCRS), ensuring that the initiatives undertaken are in harmony with the government's priorities. This strategic alignment not only strengthens the project's legitimacy and support at the national level but also ensures that it contributes meaningfully to the broader framework of international climate finance and sustainable development efforts.

Project-level monitoring and evaluation systems

The project's Monitoring and Evaluation (M&E) plan emphasizes accountability and learning across multiple levels. Key performance indicators (KPIs) include directly measurable metrics and indices-type metrics for assessing project progress and outcomes. Interim evaluators recommend refining some indicators to ensure they are specific, measurable, achievable, relevant, and time-bound (SMART), as detailed in Table 4. Additionally, the evaluators suggest updating the Theory of Change (ToC) and communicating these updates to all stakeholders. Discussions during the interim evaluation revealed limited periodic reflections on the ToC and indicators during annual work planning. The annual review process often focuses on reviewing past activities and planning for the upcoming year without thoroughly reassessing the validity of the ToC and related indicators.

The Project Management Unit (PMU) facilitated a baseline study to benchmark the project across all applicable indicators in the targeted locations. The interim evaluation concludes in September, and an impact evaluation is planned for 2027. These processes fulfill the project's accountability and learning

needs. A dedicated M&E Officer, who started on July 1, 2024, after the previous M&E Officer assumed the Project Manager's role, oversees these activities. Each implementing partner is supposed to have an M&E person in line with the Government of Zimbabwe's (GoZ) new thrust. For example, AGRITEX has a provincial-level M&E Officer, but for most implementing partners, the M&E role is integrated into other functions due to staffing gaps.

Data collection and management utilize a mix of methods and tools, such as surveys (pre- and post-planting and post-harvest field surveys), interviews, and focus groups with beneficiaries. Implementing partners generate monthly, quarterly, and annual reports, which are transmitted from sub-national to national levels. Most data are generated by AGRITEX Officers at the ward level who routinely engage with farmers. These officers submit periodic reports to the district Agricultural Extension Officer (AEO), who consolidates and forwards them to the province. The provincial M&E Officer then consolidates and submits the reports to the national level. The Implementing Partner (IP) Point of Contact shares summaries with the PMU. GoZ has provided mobile tablets and motorbikes for all ward-level officers, who use ODK-based software such as KoboCollect for surveys, transmitting data directly to a national server which replicates the same data on district and provincial servers. The PMU stores data as Microsoft Excel and SPSS files for analysis and reporting.

The project adopts a minimalist approach to quality assurance to ensure data accuracy, reliability, and validity. Provincial and district AGRITEX teams face constraints in routinely conducting site visits to observe and verify reports due to fuel and Daily Subsistence Allowance (DSA) challenges. Other implementing partners, including DOI, MSD, DR&SS, and their associated research platforms, also have limited capacity for routine site visits. However, there is evidence of district and provincial review meetings reflecting on project status among local initiatives. The PMU, lacking a full staff complement until recently, integrated monitoring functions into other routine project management activities. The interim evaluation found no up-to-date information on periodic data verification and data quality audits, a critical systems gap given that most of the routine program data is collected and reported by GoZ implementing partners.

The PMU reports on project performance against set indicators and targets. The interim evaluation team interacted with several Village Savings and Loan (VSL) groups who reported positive impacts from the project, such as buying goats, building kitchens, sending children to school, and purchasing beds from their proceeds. The project needs to strengthen systematically capturing and documenting these experiences The recruitment of Communications and Officer may address this gap.

Project-wide data reviews are largely held during the annual review and work planning process in line with the APR period, with minimal opportunities outside that window. These performance-related annual data reviews inform decision-making, project management, and strategic planning, though their infrequency limits their effectiveness. Annual reports and work planning outputs are communicated to stakeholders, including donors, project partners, and beneficiaries, with select beneficiaries attending the work planning process. The project currently relies heavily on standard reports and publications to communicate with IPs and donors, amid calls to expand the formats and channels used for reporting and information dissemination.

The project's participatory approach to M&E is commendable. Developing M&E capacity and capabilities is crucial and could be transformative in the long run.

Stakeholder engagement

The project demonstrates a commendable and extensive approach to stakeholder engagement across multiple levels. At the national level, it has adopted a whole-of-government strategy, incorporating various government departments and ministries with complementary functions to drive the project's execution. The Ministry of Environment, Climate and Wildlife serves as the National Designated Authority (NDA), while the Ministry of Lands, Water, Fisheries, and Rural Development (MLAWFRD) serve as the Implementing Partner along with other key government departments—Department of Research and Specialist Services (DR&SS), AGRITEX, Department of Irrigation (DOI), Meteorological

Services Department (MSD), and Zimbabwe National Water Authority (ZINWA)—provide daily technical and strategic leadership for the project as Responsible Parties, supported by the Project Management Unit (PMU).

At the sub-national level, the project has engaged institutions of higher learning such as Midlands State University (MSU), Great Zimbabwe University (GZU), and Chinhoyi University of Technology (CUT). These university-industry collaborations have been crucial in facilitating research and innovation, including the production of knowledge products. Notably, the PMU has recruited three experts who are lecturers at these institutions, thereby strengthening the collaboration. For instance, discussions at Matopos indicated Gwanda University's willingness to collaborate in targeted research studies.

Additionally, quasi-governmental entities like the Grain Marketing Board (GMB) and the Agricultural Marketing Authority, along with private sector players such as King of the Red, SEEDCO, and Easi Seeds, have also joined the project. Given the extensive scope of the irrigation-related civil works, the project adopted an integrated support model, leveraging the in-house capabilities of the DOI while outsourcing other site works to private sector contractors. This model has significantly contributed to the project's progress towards its targets.

At the community level, the project engages comprehensively with local communities, including men, women, youth, and marginalized groups such as the disabled, as well as local leadership, including councillors and village heads. Engagement methods include targeted meetings with select actors, workshops, focus group discussions, community and project review meetings, and surveys. With the recent addition of a Communications Officer, the project aims to enhance stakeholder engagement through digital platforms, including a website and podcasts.

The annual review and work planning process serve as foundational platforms for stakeholder engagement in decision-making processes. The Steering Committee, National Technical Working Group (NTWG), and provincial and district institutional mechanisms (via Rural District Councils and District Development Committees) ensure continued stakeholder involvement in the project. At the community level, various governance structures, including Irrigation Management Committees (IMC) and committees for lead and follower farmers, ensure ongoing community engagement and participation.

Social and Environmental Standards (Safeguards)

The project has implemented a robust framework to ensure adherence to social and environmental standards by establishing various committees dedicated to these objectives. Site visits to the planned irrigation areas revealed that all schemes are governed by an overarching Irrigation Management Committee (IMC). This structure is further supported by the Grievance Redress Mechanism (GRM) and Environmental Committees.

In the visited sites, Environmental Committees were actively engaging beneficiaries to fill in gullies and develop agreed-upon standards to minimize erosion on their plots once production starts. These committees also played a crucial role in educating communities about their responsibilities in maintaining environmental standards. For example, in the Mwenezi area, the GRM processes were prominently displayed on a board, complete with phone numbers for easy access. Beneficiaries purposefully selected approachable community members to serve on these committees, ensuring that grievance redress mechanisms were both accessible and effective.

The GRM and Environmental Committees were established in 2023, reflecting a commitment to incorporating gender-sensitive practices into the project's framework. AGRITEX provided training to these committees, ensuring they were well-equipped to handle their responsibilities. Additionally, lead and follower farmers in dryland farms have established committees to oversee their Village Savings and Lendings Groups activities, ensuring that financial management aligns with the project's social and environmental goals.

Most importantly, each site has developed a context-specific constitution, serving as the supreme document guiding their daily actions and decisions. These constitutions detail the roles and responsibilities of the committees, their three-year mandates, and the processes for replacing members,

ensuring continuity and adherence to established standards. The project has also trained Contractors, District Stakeholders, and Project Focal Points on ESMP implementation and monitoring. In addition, the PMU has conducted Environmental and Social Audits at each scheme under construction to monitor the implementation of the ESMPs.

The original project documents did not initially account for the development of Environmental and Social Management Plans (ESMPs), including the necessary timelines, stakeholder engagement, and the drafting, review, and approval processes by the Environmental Management Agency (EMA) and the Green Climate Fund (GCF). There was no separate budget allocated for ESMPs, which led to unforeseen delays. Discussions with the PMU revealed that obtaining GCF approval for the first sets of ESMPs took longer than anticipated, sometimes up to six months, impacting the scheduling of irrigation site development.

The project transitioned from developing ESMPs specific to each site to creating plans tailored to specific catchment areas to manage time and costs more efficiently. Additionally, creating 21 individual ESMPs would have involved a lot of repetition and would have been inefficient. This decision was made after consulting with SES advisors in UNDP and with GCF.By the time of the interim evaluation, ESMPs for 15 schemes had been approved by both the EMA and GCF, marking significant progress in aligning the project with the required social and environmental safeguards. This strategic shift and the establishment of comprehensive committees underscore the project's commitment to sustainable and inclusive development practices.

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Communication

The communication strategy for the project is designed to enhance awareness and engagement among stakeholders about the climate change mitigation and adaptation efforts being implemented. The primary audience includes local communities directly impacted by climate change, governmental bodies responsible for policy and field implementation, private sector value chain actors, civil society organizations (CSOs), and international organizations supporting climate initiatives. Secondary audiences encompass the public and media outlets.

To date, the project has mainly focused on stakeholder consultations, annual review and work plan meetings, workshops, and training programs in local schools. These efforts began with significant inception and launch meetings in all sub-national units, which successfully boosted community participation and garnered media coverage. The project has primarily relied on activity reports (monthly, quarterly, and annual) to disseminate information. However, there has been limited to no use of social media platforms, monthly newsletters, or press releases.

The recruitment of the Project Communication and Knowledge Management Officer is expected to address these limitations. This new role is crucial for expanding the project's communication efforts to include more interactive platforms and virtual engagement tools. This shift will help bridge the gap between the project's activities and its broader audience, ensuring more comprehensive and effective dissemination of information.

One area where the project has excelled is in the dissemination of climate information. Data generated by the Meteorological Services Department (MSD) is translated into factual and transparent advisories downscaled to the district level. These advisories are shared with lead and follower farmers in vernacular languages via social media platforms like WhatsApp, ensuring accessibility and comprehension. This approach has significantly increased smallholder farmer engagement, as evidenced by positive feedback from participants.

Despite these successes, there is a need to expand the communication strategy further. Incorporating more interactive platforms, such as social media, monthly newsletters, and press releases, will broaden the reach and impact of the project's messages in future, albeit the costs associated with the development and access to such platforms for stakeholders. Regular feedback sessions with stakeholders should be conducted to refine the communication strategy based on stakeholder input. This iterative process will ensure that the communication efforts remain relevant and effective, fostering a more informed and engaged community.

4.6 Sustainability

Financial risks to sustainability

Insufficient and delayed funding poses significant risks to the sustainability and scalability of the project. For instance, some visited irrigation schemes are not yet fully operational due to delays in the co-financing required to complete essential electricity works at specific sites and facilitate stumping and ripping activities at others. To mitigate these risks, it is imperative to work closely with the Government of Zimbabwe (GoZ) to ensure timely disbursements. Additionally, securing diverse funding sources, implementing robust financial management practices, and conducting regular monitoring and auditing of financial resources are critical steps. The project us engaging the private sector engagement to partner with farmers e.g., through contract farming. This could unlock access to capital and markets, enhancing financial sustainability in future.

One of the main threats to the long-term sustainability of mitigation and adaptation measures at the local level is economic viability. These measures may fail if they rely solely on finite project resources. However, there are positive indications of financial sustainability from the Irrigation Management Committees (IMCs) visited. Each IMC reported varying levels of monthly contributions from their members to sustain planned operations. Their records consistently show contributions, which could ensure the sustainability of the schemes in the long run.

Furthermore, most participating households in both the irrigation schemes and dryland farms are involved in Village Savings and Loan (VSL) schemes. These communities shared numerous stories demonstrating their resourcefulness. For example, some have mobilized funds to purchase fences for their irrigation schemes, budgeted for seed and fertilizer purchases, and organized resources to cover water and electricity costs. These diverse funding sources are crucial for sustaining and scaling the project's initiatives.

Socio-economic risks to sustainability

The creation of large-scale irrigation schemes inherently involves significant socio-economic risks that could threaten their long-term sustainability. To mitigate these risks, the project has facilitated catchment-based environmental and social impact assessments, which have been critical in identifying suitable land and developing participatory project designs.

In all visited schemes, communities have shown a remarkable level of cooperation by ceding land for the establishment of irrigation schemes. This communal approach ensures that households who contribute land are, by design, incorporated into the irrigation schemes. However, there are scheme-specific dynamics that require careful management to avoid potential conflicts.

For instance, at the Kondo-Rimbi scheme, feasibility studies indicated that it would be resource-efficient to abstract water towards the Kondo bloc area first, which was a shift from the original plan to start with Rimbi bloc. This decision, made through a multi-stakeholder process involving the government, PMU, and the Kondo and Rimbi communities, led to an agreement where the Rimbi community would be given 100 hectares within the Kondo area for temporary use. The Rimbi community agreed to return the land once the scheme within their block becomes operational. This arrangement required clear communication and agreements to prevent misunderstandings and ensure smooth transitions. Specifically, the agreement was endorsed by the communities during validation workshops. They were also endorsed by the rural district council.

In another scheme, the community used a lottery system to select non-land-contributing households to benefit from the irrigation project. This method was seen as a fair way to distribute benefits among community members who did not have land to contribute. Similarly, in a different scheme, all households in five of the 13 villages within reasonable proximity to the irrigation scheme were included as members, ensuring broad community involvement and benefit-sharing. Furthermore, beneficiary households contribute varying amounts towards the operations of their respective schemes.

To manage these socio-economic dynamics and ensure the sustainability of the irrigation schemes, strong governance structures have been instituted. All the irrigation schemes have established Irrigation Management Committees (IMCs) that include women as ordinary members and part of the leadership structures. Local leaders, such as village heads or councillors, are part of the IMCs as ex-officio

members only. These committees, along with various sub-committees, play a pivotal role in managing the schemes, resolving conflicts, and ensuring that all community members have a voice in the decision-making process.
The effectiveness of these governance structures is crucial for long-term sustainability. They need to be supported with continuous capacity building, transparency, and accountability mechanisms to handle the complex social dynamics involved in large-scale irrigation projects. Additionally, ongoing community engagement and regular feedback sessions can help address concerns early and maintain community support and trust.

Institutional framework and governance risks to sustainability

The project's success hinges significantly on the coordination among government agencies, the private sector, and other stakeholders. If not carefully managed, these collaborations can lead to fragmented efforts, duplication of activities, and inefficient use of resources. Government stakeholders have noted that the project has revitalized coordination at both national and sub-national levels, which is a positive development. However, there remains a need for ongoing capacity building and adequate resourcing to sustain these efforts.
The establishment of clear roles and responsibilities through the National Coordinator's Office and the Project Management Unit (PMU) has been instrumental in streamlining operations. The project has implemented inter-agency coordination mechanisms, fostering collaboration through regular communication, joint annual planning sessions, and site visits. These efforts are crucial for ensuring that all parties are aligned with the project's goals and methodologies, thereby reducing the risk of fragmented efforts and resource wastage.
Despite these improvements, limited institutional capacity remains an inherent risk. Many government institutions still lack the technical expertise, resources, and infrastructure needed to effectively implement and sustain climate change initiatives. To address this, the project continues to invest in comprehensive capacity-building programs. These programs include specialized training sessions (such as those focusing on modern irrigation techniques, climate-smart agriculture, and data management), and providing essential resources like vehicles and equipment. Additionally, partnerships with organizations and individuals, including the five technical experts recruited by UNDP, have been established to offer ongoing technical support.
To further mitigate risks associated with institutional weaknesses, the project emphasizes continuous engagement and capacity development at multiple levels. For example, workshops and training sessions are regularly conducted to enhance the skills and knowledge of government staff, ensuring they are well-equipped to manage and sustain project activities. Moreover, the project provides infrastructural support, such as upgrading facilities and improving access to technological resources, which are essential for effective project implementation.
The risk of lacking local buy-in, resistance, and conflict is also a significant concern. To mitigate these risks, the project has prioritized early and continuous engagement with all stakeholders, including communities and local leadership. This approach ensures transparent and inclusive decision-making processes. Stakeholders are encouraged to voice their concerns and suggestions, which are then addressed through participatory approaches. For instance, community meetings and focus group discussions are regularly held to gather input and feedback from local beneficiaries, ensuring that their needs and preferences are considered in project planning and execution.
One of the notable strategies employed by the project is the creation of local governance structures, such as community-based committees and working groups. These structures not only facilitate local participation but also help in conflict resolution and consensus-building. By empowering local leaders and involving them in the decision-making process, the project fosters a sense of ownership and accountability among community members.
Furthermore, the project has developed a robust monitoring and evaluation framework to track progress and identify areas needing improvement. Regular assessments and reviews are conducted to ensure that the project remains on track and achieves its objectives. This adaptive management approach allows for timely adjustments and interventions, enhancing the project's overall effectiveness and sustainability.

Environmental risks to sustainability

The implementation of large-scale irrigation and renewable energy installations, such as those at Pikinini-Jawanda, Midlo, and Zvinyaningwe, among others (see Table 6) presents several environmental risks which were considered in the ESMPs. One of the primary concerns is the potential disruption of local ecosystems and wildlife habitats. Increased irrigation for agriculture can lead to over-extraction of water resources, which can harm surface and groundwater supplies. For instance, site visits to Matobo revealed that Midlo Dam is already experiencing low water levels. However, at this site, the risk of over-extracting water was considered during feasibility studies. A thorough hydrological assessment was done. The assessment considered other water uses and the impact of future climate changes. The work includes dam gauging steps. The upstream flow gauges give farmers a sense of the available water and the commensurate area to irrigate, thus mitigating the risk of over-extraction.

The over-extraction of water resources for irrigation can significantly alter hydrological cycles, reduce water availability for other uses, and impact aquatic ecosystems. Ensuring sustainable water use is paramount. The project has taken steps to address this by conducting thorough feasibility studies and designing resilient infrastructure that considers changes in water levels and potential siltation. The project is also promoting water-efficient systems for irrigation. For instance, the project is installing centre pivots to optimize water use. This is a shift from canal irrigation which is renowned for high water losses, primarily through evaporation. However, the sustainability of these measures depends on consistent monitoring and adaptive management practices. Environmental Committees have been established in almost all visited irrigation schemes and are tasked with safeguarding and compliance. Support from the DOI, AGRITEX, and Environmental Management Agency (EMA) will be critical in maintaining these efforts.

Land-use changes associated with stumping and ripping across all irrigation schemes pose soil erosion risks, soil fertility loss, and land degradation. These risks are exacerbated by the increasing frequency and intensity of extreme weather events due to climate change. Sudden storms can cause significant soil displacement and degradation, particularly in newly cultivated areas. Most sites visited reported the establishment of environmental committees. The committees have devised catchment protection measures, including gully filling and other mechanical works to contain run-off. Sites also use a combination of manure, compost, and inorganic fertilizers to conserve soil fertility. However, the use of inorganic fertilizers must be managed carefully to prevent water pollution in nearby water bodies.
The application of inorganic fertilizers, if not managed properly, can lead to increased nutrient runoff, causing eutrophication of water bodies and deteriorating water quality. Farmers in the project areas plan to use integrated soil fertility management practices, combining organic and inorganic inputs to maintain soil health and reduce dependency on chemical fertilizers. Environmental Committees at the irrigation sites play a pivotal role in educating farmers about best practices and monitoring compliance. Ongoing training and support from EMA and other agricultural extension services are essential to ensure that these practices are implemented effectively.

The project operates in arid and semi-arid regions where land and water resources are already scarce and highly contested. The introduction of large-scale irrigation schemes can exacerbate competition between agricultural projects and local communities or ecosystems, potentially leading to conflicts and unsustainable practices. The Department of Irrigation (DOI) and AGRITEX involve local communities in planning and decision-making processes. This participatory approach aims to ensure equitable resource distribution and promote integrated resource and catchment area management, thereby reducing potential conflicts and enhancing community buy-in and project sustainability.

Climate change poses significant risks to the sustainability of the project's infrastructure. The increasing frequency and intensity of extreme weather events, such as floods and storms, can damage irrigation and renewable energy installations, reducing their effectiveness. The project has designed resilient, climate-proofed civil works. This was informed by comprehensive feasibility assessments that included climate risk evaluations for all targeted sites. The feasibility studies identified the need to accommodate fluctuating water levels. Hence, the choice to install submersible systems, see Figure 3 The same studies

also acknowledged the potential for siltation at some sites e.g., at Bwanya in Masvingo. Hence, the choice to erect the structure shown in 2.

Figure 3: The civil works at Zvinyaningwe

4.7 Country Ownership

Country ownership and leadership are fundamental aspects of the project's design and implementation, manifesting in multiple dimensions beyond mere hierarchical interpretations. The project aligns closely with Zimbabwe's national climate policies and strategies, including the National Climate Policy, National Climate Change Response Strategy (NCCRS), and the Renewable Energy Policy, and the sectoral plans e.g., for agriculture and irrigation development. This alignment ensures the project supports and enhances the country's broader climate goals and objectives. The use of national systems, such as those from the Ministry of Finance and Economic Development, underscores the commitment to increasing accountability and transparency in the utilization of resources.

Government entities, including the Ministry of Finance and Economic Development, the Department of Irrigation (DOI), AGRITEX, the Meteorological Services Department (MSD), the Department of Research and Specialist Services (DR&SS), and the Ministry of Environment, actively participate in the project. Additionally, local universities and research institutions contribute their expertise and resources, enhancing the project's capacity for innovation and knowledge dissemination. Private stakeholders such as Ease Seeds, the contracted companies working on the irrigation civil works, and King of the Reds, among others, also play crucial roles, demonstrating a collaborative approach that leverages diverse strengths and perspectives.

The project features a dedicated National Coordinator seconded by the Government of Zimbabwe (GoZ), highlighting the government's direct involvement and leadership. The project also boasts a functional country-led steering committee and a National Technical Working Group (NTWG), ensuring that decision-making processes are inclusive and representative of various stakeholders. Government

structures at the sub-national level, including District Development Committees and Rural District Councils, are fully invested in the project, facilitating effective local implementation and community engagement.

The government, Green Climate Fund (GCF), and United Nations Development Programme (UNDP) have jointly agreed on the project goals and funding arrangements, reflecting a shared commitment to achieving the desired outcomes. As of July 2024, the GoZ had exceeded its financial and in-kind contributions, despite delays in irrigation-related funding). This overachievement, with the GoZ surpassing its contribution by over $2 million, is a testament to the government's motivation and ownership of the project. Communities are also significantly contributing by partnering with government and private contractors to complete civil works, fence irrigation schemes, procure seeds, fertilizers, and livestock, and form relevant governance structures. Many of these structures are already operational, executing their mandates effectively.

National coordination efforts have a substantial influence on domestic allocative choices across all project areas. The overarching project covenant and stakeholder annual work planning processes guide these decisions, ensuring that resources are allocated efficiently and in alignment with project objectives. This coordination is crucial for maintaining the project's momentum and ensuring that all stakeholders remain committed to the shared goals.

The project dedicates substantial resources to enhancing the institutional capacity of national and sub-national government institutions and related actors. Targeted training programs in areas such as hydrologic modelling, women in leadership, and participatory varietal selection, among others, foster stronger country ownership and ambition, equipping local actors with the skills and knowledge needed to sustain the project's impacts. Engagements with various government actors have demonstrated high levels of collaboration, commitment, and responsibility, further solidifying the project's foundation.

Continuous efforts to strengthen capacity, governance, and accountability mechanisms are pivotal. These efforts ensure that the project not only achieves its immediate objectives but also builds a robust framework for ongoing climate resilience and sustainable development in Zimbabwe. The project's approach to capacity building includes not only technical training but also the development of governance structures and accountability mechanisms, which are essential for long-term sustainability.

Community involvement is a cornerstone of the project's success. Local communities are actively participating in various aspects of the project, from the physical construction of irrigation infrastructure to the governance of these schemes. The creation of local governance structures, such as Irrigation Management Committees (IMCs) that include local leaders like village heads and councillors, ensures that the project is grounded in local realities and responsive to community needs. This participatory approach fosters a sense of ownership and accountability among community members, which is crucial for the sustainability of project outcomes.

4.8 Innovativeness in results areas

One of the most significant innovations of the project is the adoption and implementation of advanced irrigation technologies. By focusing on both the rehabilitation of existing infrastructure and the development of new systems, the project ensures efficient water distribution and management. For instance, the introduction of modern irrigation methods such as sprinkler and pivot systems cater to diverse terrains and optimizes water use efficiency. These technologies not only enhance crop yields but also reduce water wastage, which is crucial in Zimbabwe's semi-arid and arid regions. This innovation has the potential for scalability in other regions facing similar water scarcity challenges, provided there is investment in infrastructure and capacity building.

The use of low-maintenance, submersible pumps and silt-sensitive systems further exemplifies the project's innovative approach. These pumps require minimal human intervention, reducing the need for constant maintenance and allowing farmers to focus on other agricultural activities. The silt-sensitive system, installed at the Bwanya Irrigation Scheme, addresses the common issue of siltation in irrigation pipes, ensuring uninterrupted water flow. Both technologies are scalable and replicable in regions with similar geographical and hydrological conditions. They can be adapted to local contexts by incorporating community-led management and integrating local knowledge of water management.

The establishment of community-based irrigation management committees (IMCs) is another innovative aspect of the project. These committees include local leaders and representatives responsible for overseeing the maintenance and operation of irrigation systems. By involving the community directly, the project fosters a sense of ownership and accountability, which is crucial for the long-term sustainability of the interventions. This community-driven approach can be replicated in other contexts, especially in regions where local leadership and community participation are strong. Scaling this model requires investment in leadership training, community mobilization, and the creation of institutional frameworks to support local governance of irrigation systems.

IMCs also serve as platforms for training and capacity building, equipping community members with the skills needed to manage and sustain the irrigation infrastructure. This decentralized approach to irrigation management, combined with climate-smart agricultural practices, ensures that local needs and conditions are met, making it replicable across other regions. Scaling this model would involve developing partnerships with local governments, agricultural extension services, and NGOs to ensure technical support and capacity building.

The project has promoted climate-smart agricultural practices, which are essential for building resilience to climate change. These include crop rotation, intercropping, agroforestry, and conservation agriculture. The participatory varietal selection process, where farmers are involved in developing and testing new crop varieties, ensures that innovations are suited to local conditions. This approach, combined with the introduction of drought-tolerant crops and resilient livestock varieties, is highly replicable in other regions with similar climatic conditions. Scaling these innovations will require partnerships with research institutions and seed companies to facilitate the development and distribution of climate-resilient crop and livestock varieties.

The use of digital platforms for climate information dissemination represents a scalable and cost-effective innovation. By providing farmers with weather forecasts, early warning alerts, and agronomic advice via WhatsApp and other digital tools, the project enables farmers to make informed decisions. This model can be replicated in other rural and semi-rural areas by leveraging existing mobile infrastructure and tailoring content to local languages and agricultural needs. Scaling this approach would involve collaborations with mobile service providers, the development of localized content, and the provision of training on the use of digital platforms for farmers in other regions.

The creation of innovation platforms that bring together researchers, agricultural extension services, private sector partners, and farmers facilitates knowledge exchange and collaboration. These platforms have been crucial in scaling climate adaptation strategies and can be replicated in other regions by establishing multi-stakeholder partnerships. The project's investment in laboratory infrastructure and technology at these platforms is also replicable, provided there is adequate investment in research and technical support in other contexts.

The project’s emphasis on capacity building is an innovative feature that ensures long-term sustainability and scalability. Training programs for farmers, community members, and government institutions equip stakeholders with the skills and knowledge necessary to sustain interventions. This model of continuous capacity building and the use of demonstration sites can be adapted and replicated across different agricultural contexts. Scaling this effort would require coordination with local agricultural institutions, NGOs, and government bodies to ensure that training programs are localized and meet the specific needs of the target communities.

Finally, the project’s approach to sustainable land use, including the construction of gabions, gully reclamation, stumping and ripping across irrigation schemes, promotes environmental conservation while ensuring agricultural productivity. By encouraging balanced fertilizer use and promoting organic farming practices, the project minimizes environmental degradation. This approach can be replicated in other agricultural settings, with a focus on training and knowledge exchange around sustainable land use practices. Scaling this model would involve partnerships with environmental organizations and the development of policies that promote sustainable agriculture.

4.9 Unexpected results, both positive and negative

Positive unexpected results

The project has sparked numerous grassroots initiatives, with local communities taking proactive steps to prepare and better manage irrigation systems while sharing knowledge among themselves. For instance, in schemes such as Pikinini-Jawanda, Midlo, and Zvinyaningwe, among others, communities have undertaken land clearing, purchased fencing for their schemes, and saved for inputs and fertilizers. They have also pooled resources to pay security guards to protect their investments, demonstrating a strong commitment to sustaining their agricultural practices. The level of community participation in training sessions and workshops has surpassed expectations, indicating a robust interest and engagement in the project's objectives. Additionally, the rapid adoption rate of mobile-based climate information services has been a significant positive outcome. More farmers than anticipated are using social media for weather forecasts and agricultural advice, enhancing their ability to make informed decisions.

Unexpected research outputs have also emerged from the project's collaborative efforts between farmers and researchers. The participatory varietal selection process has led to the development of pest and bird-resistant crop varieties and livestock breeds, showcasing unprecedented levels of cooperation. The innovation platforms' success and visibility have attracted additional funding and resources from various institutions and stakeholders, bolstering local research capabilities. This has resulted in increased participation from actors such as Gwanda University, quasi-government entities like the GMB and Agricultural Marketing Association, and private sector companies such as King of the Red, SEEDCO, and EASI Seeds. Furthermore, a notable social impact has been observed in areas like Ward 1, Chimanimani, where Village Savings and Loans (VSLs) have contributed to a reduction in gender-based violence (GBV). One participant noted, "When a woman has money at home, there is happiness because no one is choked for money for salt," highlighting the positive influence of economic empowerment on household dynamics.

Negative unexpected results

Despite the many positive outcomes, the project has also encountered several challenges that need addressing. In areas such as Gwanda (for the Masholomoshe Irrigation scheme), the unanticipated depletion of local water resources due to other water usage and poor rains during the 2023/24 season has raised concerns about the sustainability of the water supply. This underscores the need for more comprehensive water management strategies.

Social and equity issues have also surfaced despite extensive efforts to promote inclusivity. In certain sites, potential beneficiaries faced barriers such as joining fees, which some community members could not afford, leading to their exclusion. For instance, at Bindamombe, the community used a lottery system to select beneficiary households among those who did not contribute land for the scheme. This, inadvertently, left some members out.

Additionally, , conservation agriculture – more so basin digging, threshing small grains, and cutting fodder, often done with traditional tools – is labour-intensive more so for women, the elderly, and child-headed households. As such, communities use the group approach to land preparation. In addition, the project, building on the ZRBF, has also been promoting new technologies. For example, the threshers and grinder choppers significantly lessen the time required to process small grains, address the problem of drudgery, skin itching/irritations, contamination by extraneous materials, and improving palatability - making it an incentive to increase adoption of the technologies and practices. Most dryland farmers do not have access to such technology yet due to financial limitations. In the irrigation schemes, the use of centre pivots, sprinklers and drag horses will also help lessen the burden on women, the elderly and people with disabilities. Access to such technologies is, however, constrained by low incomes.

Most plots lack fences, meaning farmers must continually re-invest in mulch and related activities every season, adding to their workload and financial burden. In regions like Masvingo, some farmer field plots are located up to 15 km away from the farmers' residences, making it even more strenuous. The project's ability to respond to these unexpected results will be crucial in ensuring its long-term success and sustainability.

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4.10 Replication and Scalability

The project's strengthened collaborations between various government departments—especially AGRITEX, DOI, ZINWA, and MSD—have significantly bolstered its potential for replication and scalability. While these departments have a presence at national and provincial levels, AGRITEX operates at the ward level, linking and supporting farmers locally. Training provided to AGRITEX Extension Officers by other government departments and innovation platforms is then transmitted to farmers at dryland and soon-to-be-established irrigation farmer field schools. The cascade model, which includes follow-up monitoring site visits by relevant government departments, ensures ongoing support. The farmer field school model, championed by AGRITEX, has become crucial for disseminating new climate-smart technologies and approaches. At these schools, AGRITEX works with lead farmers who then train follower farmers, significantly extending the reach and impact of the project's initiatives. Each lead farmer now mentors an average of 10 follower farmers, effectively acting as an extension arm of AGRITEX at the local level. This collaborative approach facilitates the replication and scalability of project initiatives in non-project sites and sub-national units.

Multi-level training and capacity-building activities further support the project's scalability. These activities, which include training for farmers on various agricultural techniques and for government institutions on specialized skills such as hydrologic modeling and women in leadership, equip stakeholders with the knowledge and skills needed to replicate project interventions independently. The project's revitalized partnerships with innovation platforms such as Matopos and Makoholi, which collaborate with local and international universities and communities in participatory seed varietal selection and livestock breeding, underscore its potential for broader impact. The fully equipped state-of-the-art laboratory at Matopos, capable of serving the local and regional livestock market for artificial insemination and crossbreeding, exemplifies the project's strategic approach to replication and scalability. The cross-pollination of ideas and practices among these innovation platforms promises to transform small grain and livestock production value chains beyond the targeted communities.

The participation of private sector value chain actors has also played a crucial role in the project's scalability. For example, in Matobo, the partnership between the Matopos Research Institute (MRI) and local goat farmers has attracted the interest of King of the Reds, a private actor. This company is interested in the hybrid Kalahari-Matabele breed and is now supporting local farmers by building a dip tank to mitigate the risk of tick-borne diseases. King of the Reds has already trained over 200 farmers, demonstrating how private sector involvement can scale production and improve rural livelihoods. Additionally, the project has facilitated mechanisms for knowledge sharing and the dissemination of best practices, such as farmer exchange visits, annual review workshops, and project-focused conferences. Institutions like Matopos have published research in international journals, and visits to sites like Chisumbanje, Makoholi, Esigodini, and Matopos show evidence of documented processes and early research results. The recent recruitment of Communications and Knowledge Management Officers is expected to further catalyze the documentation and dissemination of knowledge products, essential for scaling up climate-smart approaches beyond the current project sites.

The project's investments in irrigation-related infrastructure, including solar and electricity grids, water abstraction technologies, and climate-smart agricultural technologies for drylands, are critical for its long-term impact. To sustain these infrastructures, the project has established (for new schemes) and strengthened (for existing schemes) various committees and structures, such as Irrigation Management Committees (IMCs), lead farmer committees, and Operations and Maintenance Committees (OMCs). Site-specific OMC training will be provided once the irrigation schemes are fully operational. These committees also mobilize local resources to maintain the infrastructure and technologies. In both dryland and irrigation schemes, the project has distributed new equipment like threshers and basin diggers to reduce labour burdens and enhance operations. While the expectation is for farmers to eventually procure such equipment themselves, the current drought has strained their resources, focusing their efforts on mobilizing funds for fencing, stumping, seed, and fertilizer procurement. Nevertheless, in

areas like Matobo, farmers have shown eagerness and resourcefulness in procuring their equipment, highlighting varying levels of maturity and resource mobilization across different groups.

Ensuring sustainability through co-financing approaches, robust governance mechanisms, and policy shifts is another key element of the project's strategy. National co-financing and local farmer contributions are pivotal for the project's long-term sustainability, ensuring continued support and resource availability for scaled interventions. Across all visited irrigation sites, farmers actively participated in land clearing, fencing, and saving for seed and fertilizer procurement. The government's surpassing of its co-financing contribution, driven by initiatives like 'Pfumvudza', underscores its commitment to scaling up irrigation and combating climate change. The GoZ's dedication to utilizing the country's over 10,000 water bodies for local food security, as articulated by the Permanent Secretary, reflects a strong resolve to prevent future food insecurity. The establishment of village business units, still in their formative stages, shows potential for further scalability with additional private financing. These units, tailored to local contexts, integrate solarized systems, cropping, livestock regimes, and market support, representing a holistic approach to agricultural development. Lastly, the project has established and trained various governance structures, each with constitutions and resource mobilization plans, to ensure sustainability. The composition and capacity of these committees can be scaled up and replicated in other community projects across the country, further enhancing the project's reach and impact.

4.11 Gender Equity

The project’s commitment to gender equity is evident from its inception, with a clear mandate that at least 50% of the beneficiaries should be women. This ambitious target acknowledges the critical role women play in rural livelihoods, as well as the disproportionate burden climate change imposes on them. To date, nearly 66% of the beneficiaries are women, surpassing the project’s original target. This high level of participation reflects not only the project's outreach but also its ability to resonate with women’s specific needs and vulnerabilities.

A key strength of the project is its emphasis on inclusive participation. Women were actively involved in stakeholder engagement processes, consultations, and decision-making bodies, fostering a sense of ownership and empowerment. At least 50% representation in governance structures at both irrigation and dryland farming sites demonstrates the project’s success in promoting gender-balanced leadership. This level of participation is transformative, as women are now visible in key leadership roles such as chairpersons, secretaries, and finance officers—positions traditionally dominated by men.

However, while these gains are significant, the project must acknowledge and address deeper socio-cultural barriers that impede women’s full empowerment. High levels of participation, while commendable, do not always translate to sustained leadership or long-term gender equity. Cultural norms, domestic responsibilities, and gendered power dynamics often prevent women from fully capitalizing on these opportunities. Without a comprehensive strategy to address these structural barriers, women’s participation risks being limited to tokenism rather than meaningful empowerment. The project must therefore consider strategies such as engaging male community leaders and household members to support women’s leadership roles, creating a more gender-inclusive environment.

The project has also made commendable efforts in capacity building, providing technical training to women, men, and youths. This training has enhanced agricultural and entrepreneurial skills, empowering women to become more active in farming and community activities. The village savings and lending schemes introduced by the project have played a pivotal role in improving women’s access to financial resources and entrepreneurial opportunities. Women have reported enhanced economic status, greater financial independence, and increased confidence as a result of these interventions. However, the sustainability of these gains is not guaranteed. To ensure long-term impact, the project must continue to provide follow-up training, mentorship, and access to markets for women entrepreneurs.

Another critical area of focus is the establishment of grievance-handling mechanisms. By ensuring that both male and female members are trained to address grievances, the project has promoted an environment of accountability and inclusivity. These mechanisms have proven effective in addressing concerns from beneficiaries and improving project implementation. Nevertheless, the continued success of these grievance mechanisms relies on the sustained engagement and trust of the community. Ongoing efforts are needed to ensure that all grievances are addressed swiftly and transparently, maintaining trust and ensuring that the project continues to respond to the evolving needs of its beneficiaries.

The project's plan to provide targeted training on 'Women in Leadership' is a proactive step toward addressing women's reluctance to assume leadership roles. This training will boost women's confidence and equip them with the skills necessary to lead effectively. However, it is important to recognize that leadership training alone may not be enough. Broader socio-cultural barriers—such as patriarchal norms, lack of family support, and gender stereotypes—must be addressed in tandem. The project should work closely with male community members and traditional leaders to create a supportive environment where women's leadership is not only accepted but encouraged. By tackling these underlying issues, the project can ensure that women's leadership roles are both meaningful and sustainable, contributing to long-term gender equity and empowerment.

5. Conclusions and Recommendations

5.1 Conclusions

The interim evaluation of the project reveals a comprehensive and multifaceted approach to addressing climate change adaptation and resilience in rural Zimbabwe. The project, supported by the Green Climate Fund (GCF) and co-financed by the Government of Zimbabwe (GoZ) and the United Nations Development Programme (UNDP), demonstrates significant achievements and provides valuable lessons for future climate adaptation initiatives. This conclusion critically examines the project's strengths, weaknesses, and results, offering evidence-based and balanced statements drawn from the evaluation's findings.

One of the project's key strengths is its inclusive and participatory approach. From the outset, the project involved a wide range of stakeholders, including national and local government entities, research institutions, private sector actors, and local communities. This collaborative effort has fostered a sense of ownership and commitment among all parties involved. The high level of community engagement, particularly the involvement of women and marginalized groups, has ensured that the project addresses the specific needs and priorities of the target communities.

The project has made substantial investments in capacity building and empowerment. Technical training provided to farmers, particularly women, and youth, has enhanced their skills and knowledge in climate-smart agricultural practices, irrigation management, and financial literacy. The introduction of village savings and lending schemes has empowered women economically, enabling them to invest in their farms and businesses. The establishment of community-based irrigation management committees and grievance-handling mechanisms has further strengthened local governance and accountability.

The project's adoption of innovative approaches and technologies is another notable strength. The introduction of drought-tolerant crops and resilient livestock breeds, participatory varietal selection processes, and modern irrigation techniques have significantly improved agricultural productivity and resilience. The investment in state-of-the-art laboratory infrastructure and climate information dissemination through mobile platforms has enhanced the capacity for research, development, and timely decision-making.

The project has benefited from strong support and collaboration with various government departments and institutions. The alignment with national climate policies and strategies, the establishment of clear

roles and responsibilities, and the regular coordination mechanisms have facilitated effective implementation. The Government of Zimbabwe's financial and in-kind contributions, despite some delays, underscore its commitment to the project's goals.

The project has yielded significant positive impacts on the target communities. Increased agricultural yields, enhanced food security, and improved livelihoods are evident in the project sites. The community-led initiatives, such as land clearing, resource mobilization for inputs, and local governance structures, highlight the project's success in fostering self-reliance and resilience. The reported reduction in gender-based violence due to economic empowerment initiatives is a noteworthy social impact.

Despite its achievements, the project has faced several challenges, primarily related to delays and resource constraints. The COVID-19 pandemic exacerbated these issues, causing disruptions in supply chains, field activities, and financial disbursements. The delayed recruitment of key staff members and the need to redo feasibility studies and Environmental and Social Management Plans (ESMPs) further impacted the project's timeline. The project's budget shortfall, particularly for the irrigation schemes, poses a significant challenge to achieving the planned outcomes.

The evaluation highlighted inefficiencies in procurement processes and coordination between UNDP and GoZ entities. Lengthy procurement procedures and bureaucratic hurdles have caused delays in the implementation of critical activities. The absence of the Ministry of Finance and Economic Development in the Steering Committee has also contributed to financial disbursement delays. These challenges underscore the need for streamlined processes and improved coordination to enhance project efficiency.

The large-scale irrigation and renewable energy installations pose potential environmental risks, such as water resource depletion, soil erosion, and ecosystem disruption. The project's efforts to establish environmental committees and develop catchment-based ESMPs are positive steps, but ongoing monitoring and adaptive management are essential to mitigate these risks. The sustainability of the project's interventions, particularly in terms of financial and institutional support, remains a critical concern.

The project must strengthen its M&E capabilities. Specifically, it should invest in robust, periodic data quality assessments and verifications, given that most of the reported data is collected and submitted by the implementing partners. The project must develop and update indicator reference sheets for all applicable (existing and new) indicators, with staff receiving periodic training on these updates. Given the long-term and longitudinal nature of the project, investing in a relational database may be considered. To empower implementing partners, the project must also find creative ways to resource implementation, allowing for dedicated review and data verification exercises using standard tools and approaches. Similarly, the PMU should explore opportunities to strengthen M&E capabilities at the national level to share the burden of site-level monitoring, collaborative learning, and adaptation. The project has significantly increased agricultural productivity in the target communities. The introduction of climate-smart agricultural practices, improved irrigation systems, and resilient crop and livestock varieties has led to higher yields and better food security. The reported increase in sorghum yields in Masvingo Province and the success of farmer field schools are concrete examples of these positive outcomes.

The project has enhanced the resilience and adaptive capacity of rural communities. The focus on drought-tolerant crops, water resource management, and participatory varietal selection has equipped farmers with the tools and knowledge to cope with climate variability. The adoption of climate information services through mobile platforms has further strengthened farmers' ability to make informed decisions.

The economic empowerment of women through village savings and lending schemes has had a transformative impact. Women's increased financial independence has contributed to improved

household well-being and reduced gender-based violence. The project's emphasis on inclusive participation and local governance has fostered social cohesion and collective action, with communities actively contributing to the success of the interventions.

The project has strengthened the capacity of national and local institutions to implement and sustain climate adaptation initiatives. The training provided to government officials, the establishment of innovation platforms, and the collaboration with research institutions have built a solid foundation for continued progress. The project's approach to capacity building and institutional strengthening is a model for similar initiatives.

The project's innovative approaches and the establishment of knowledge-sharing mechanisms have contributed to broader impacts beyond the immediate project sites. The cross-pollination between innovation platforms, the involvement of private sector actors, and the documentation and dissemination of best practices are critical for scaling up successful interventions. The project's emphasis on research and development has the potential to transform agricultural practices and value chains in Zimbabwe.

5.2 Lessons learned

Lesson 1: Importance of inclusive and participatory approach
The inclusive and participatory approach adopted by the project was pivotal in its success. Involving a wide range of stakeholders from the outset ensured that the project was tailored to the specific needs and priorities of the target communities. This approach fostered a sense of ownership and commitment among participants, leading to high levels of community engagement and effective implementation. Regular consultations, participatory planning meetings, and decision-making processes were crucial in maintaining this engagement.

Lesson 2: Capacity building and empowerment as key drivers of sustainability

The project's investment in capacity building and empowerment initiatives played a crucial role in its sustainability. Technical training provided to farmers, particularly women and youth, enhanced their skills and knowledge in various areas, including climate-smart agricultural practices, irrigation management, and financial literacy. The introduction of village savings and lending schemes economically empowered women, enabling them to invest in their farms and businesses. These initiatives built local capacities and promoted sustainable practices, ensuring long-term impact.

Lesson 3: Leveraging innovative approaches and technologies.
The adoption of innovative approaches and technologies significantly improved agricultural productivity and resilience. The introduction of drought-tolerant crops, resilient livestock breeds, participatory varietal selection processes, and modern irrigation techniques demonstrated the potential of innovative solutions in addressing climate challenges. Continuous training and resources ensured that these innovations were accessible and usable by local communities, enhancing their resilience and productivity.

Lesson 4: Ensuring strong government and institutional support
Strong support and collaboration with various government departments and institutions were crucial for effective project implementation. The alignment with national climate policies and strategies, the establishment of clear roles and responsibilities, and regular coordination mechanisms facilitated the smooth execution of project activities. This strong governmental backing ensured that project activities were well-coordinated, supported, and aligned with broader national objectives, reinforcing the project's sustainability and impact.

Lesson 5: Addressing socio-cultural barriers

Despite commendable efforts to promote gender equity and inclusive participation, socio-cultural barriers persisted. Challenges such as the reluctance of some women to assume leadership roles, increased workload for women due to new agricultural practices, and the digital divide in accessing climate information services highlighted ongoing issues. Addressing these socio-cultural barriers was essential for ensuring that all community members could benefit from the project interventions. Targeted gender training, labour-saving technologies, and initiatives to bridge the digital divide were critical components of this effort.

Lesson 6: Participatory monitoring, data management and quality assurance
The project has taken a participatory approach to monitoring. AGRITEX is using digital platforms provided by the project to aid in data collection and reporting. The PMU trained the staff of the implementing partner in 2022. Due to staff turnover, the project needs to keep investing in such training. As mentioned earlier, the project should explore the use of a relational database and establish processes to ensure data quality and verification.

Lesson 7: Adapting to environmental and sustainability concerns
The project's environmental safeguards, including the establishment of environmental committees and the development of catchment-based Environmental and Social Management Plans (ESMPs), were positive steps. However, ongoing monitoring and adaptive management were crucial to mitigate risks such as water resource depletion, soil erosion, and ecosystem disruption. Continuous environmental assessments and adaptive management practices ensured that interventions remained sustainable and did not harm local ecosystems, addressing both immediate and long-term environmental concerns.

Lesson 8: Enhancing financial management and resource mobilization
The project faced challenges related to delays and resource constraints, particularly exacerbated by the COVID-19 pandemic. The budget shortfall, especially for the irrigation schemes, posed a significant challenge to achieving the planned outcomes. Delays in procurement processes and financial disbursements impacted the timely implementation of critical activities. Effective financial management and resource mobilization were essential for the project's success and sustainability. Establishing robust financial management practices, streamlining procurement processes, and securing diverse funding sources were critical components of this effort.

Lesson 9: Promoting knowledge sharing and dissemination
The project's knowledge-sharing mechanisms, such as farmer exchange visits, annual review workshops, and project-focused conferences, effectively disseminated best practices and lessons learned. The involvement of private sector actors and the publication of research findings in international journals highlighted the project's potential for broader impact. Knowledge sharing and dissemination were critical for scaling up successful interventions and promoting continuous learning. Establishing diverse platforms for knowledge exchange and engaging a broad range of stakeholders enhanced the reach and impact of knowledge-sharing efforts.

5.3 Recommendations

At the end of this evaluation, the following recommendations are made:

Recommendation 1: Capacity and capability strengthening, especially in irrigation schemes
Institution responsible: PMU, GoZ, AGRITEX, UNDP
Priority: 1 (Very Urgent, short term)
Civil works for the first batch of irrigation schemes are complete. The schemes will be transitioning to production. Ongoing training and capacity-building programs are essential for farmers to enhance their skills in advanced irrigation techniques, climate-smart agriculture practices, and effective use of climate information. This continuous education will enable farmers to adapt to new technologies, refine their

skills, and optimize agricultural practices for improved productivity and resilience. The project has developed a training manual to facilitate site-specific OMC training. In addition, a detailed implementation curriculum has been developed and is being followed

1. **Training and Capacity Building:** Implement a comprehensive training program for OMC and IMC members, among others, based on the developed manuals. Focus on practical skills and knowledge transfer to ensure effective management and operation of the irrigation schemes.
2. **Maintenance planning:** Implement a robust maintenance plan to ensure the long-term sustainability of the irrigation infrastructure. This should include routine checks, preventive maintenance schedules, and resource mobilization to ensure that necessary repairs are done timely, electricity bills are paid for, and other needs of the scheme are satisfied.
3. **Monitoring and Evaluation:** Establish a robust, participatory monitoring and evaluation (M&E) system to track the performance of the irrigation schemes and the effectiveness of the various committees. This should include regular assessments and feedback mechanisms to address issues and improve operations**.** Create a system for receiving and addressing feedback from OMCs and farmers. Use this feedback to make continuous improvements to the irrigation schemes and capacity-building efforts.
4. **Sustainability planning:** Invest in context-relevant social engineering approaches to transform mindsets and group dynamics. Continue strengthening strategies for financial sustainability, such as cost-sharing mechanisms, revenue generation activities, or partnerships with private sector stakeholders, to ensure the long-term viability of the irrigation schemes.

Recommendation 2: Strengthen agricultural extension services
Institutions responsible: GoZ
Priority: 1 (Very Urgent, short term)
Agricultural extension services are crucial for providing regular support and advice to farmers. Strengthening these services will help farmers troubleshoot problems, improve their practices, and maintain productivity.

1. **Continue enhancing agricultural extension infrastructure:** Invest in the infrastructure and resources needed to support extension services. All AEOs are motorized; however, they need fuel. In addition, the provincial AGRITEX teams (and other IP staff) also require fuel to support site-level activities and beneficiary households. This could enhance quality improvement and assurance processes. GoZ has supported over 80% of the AEOS with modern mobile tablets. This facilitates data collection and submission of reports as long as the officers have internet connectivity.
2. **Training for extension officers:** Continue to provide specialized training for extension officers to equip them with the latest knowledge and skills in climate-smart agriculture and irrigation management.
3. **Regular field visits:** The FFS approach requires weekly meetings with farmers. Continue to explore creative solutions to enable AEOs (farmer field facilitators) to execute this mandate without impoverishing them. Some AEOs reported using their resources to do the work e.g., fuelling their motorbikes.

Recommendation 3: Enhance community and institutional engagement
Institution responsible: PMU, GoZ, Local Community Leaders
Priority: 2 (Urgent, medium term)
Supporting the formation and strengthening of community-led governance structures is essential for the collective management and maintenance of irrigation systems. These structures foster a sense of ownership and responsibility among farmers, ensuring the sustainable use and upkeep of the infrastructure.

1. **Training and capacity building:** Continue to develop the capacity of the established or revived governance structures/committees. This will be particularly important for the operations and maintenance committees as well as IMCs. The thrust on farming as a business should continue to be strengthened so too are efforts on women's empowerment as they assume leadership roles in the established committees.

2. **Regular meetings and feedback:** Continue to organize regular meetings with the governance committees to review progress, discuss challenges, and make necessary adjustments.

Recommendation 4: Foster research collaborations
Institution responsible: PMU, Local Research Institutions, Innovation Platforms
Priority: 3 (Not Urgent, medium-long term)
Fostering collaborations between research institutions, innovation platforms, and farming communities is vital for driving agricultural innovation and addressing emerging challenges. Sustained research and innovation efforts will ensure farmers have access to the latest advancements in agricultural practices and technologies.

1. **Strengthen partnerships:** Facilitate partnerships between research institutions, innovation platforms, and farming communities.
2. **Research and development:** Support ongoing research and development activities to address agricultural challenges and introduce new technologies.
3. **Dissemination of findings:** Ensure that research findings and new technologies are effectively disseminated to farmers through training programs and extension services.

Recommendation 5: Promote sustainable water resource management
Institution responsible: PMU, GoZ, AGRITEX, ZINWA
Priority: 1 (Not Urgent, medium to long term)
Promoting and implementing sustainable water resource management practices is crucial for preventing resource depletion and ensuring the long-term viability of irrigation systems. This includes regular monitoring of water usage and replenishment rates and the adoption of water-saving technologies.

1. **Water monitoring systems:** All revamped systems have water meters and stream/river flow gauging systems. Ensure the continued functionality and use of the systems by the communities and responsible government agencies.
2. **Sustainable practices training:** Provide training on sustainable water management practices to farmers and community members.

Recommendation 6: Establish robust feedback mechanisms
Institution responsible: PMU, UNDP, Local Community Leaders
Priority: 2 (Urgent, short to medium term)
Establishing robust feedback mechanisms is essential for gathering farmer inputs on the usability and effectiveness of new approaches and services. Continuous feedback will ensure that new technologies remain relevant and user-friendly.

1. **Feedback channels:** Create multiple channels for farmers to provide feedback, including surveys, focus group discussions, and suggestion boxes.
2. **Regular feedback collection:** Schedule regular feedback collection sessions to gather inputs from farmers.
3. **Action on feedback:** Develop a system to review the feedback and make necessary improvements to the project interventions based on farmer inputs.

Recommendation 7: Secure additional funding and resources or rationalize the targets to be commensurate with available resources
Institution responsible: GoZ, PMU, UNDP, GCF
Priority: 1 (Very Urgent, short term)
At the start of the project, the budget was reduced by the Green Climate Fund (GCF) by $4 million before final approval. This reduction left the project with the resources for only 14 irrigation schemes instead of the originally planned 21. However, the project targets were not sufficiently revised to reflect this budget cut. Also, securing additional funding and resources is crucial for scaling successful interventions and expanding their reach. Sustained financial support is necessary for the long-term success and expansion of project benefits.

1. **Discuss the initial cut in the project budget:** To address this issue, an urgent meeting with GCF is necessary to either secure the additional funds required to meet the original target of 21

irrigation schemes or to officially revise the target in line with the available budget. Without addressing this discrepancy, the project will be unable to achieve its intended outcomes.

2. **Funding proposals:** Develop comprehensive funding proposals to attract additional support from government, private sector, and international donors.
3. **Partnerships and collaborations:** Build strong partnerships with private sector and international donors to secure diverse funding sources.

Recommendation 8: Improve monitoring and evaluation systems
Institution responsible: PMU, GoZ, UNDP
Priority: 2 (Urgent, short to medium term)
Improving the monitoring and evaluation (M&E) systems is essential for tracking progress, identifying challenges, and making necessary adjustments. This includes embedded data quality and verification exercises and ensuring that implementing partners have clear indicator reference sheets.

1. **Enhanced M&E framework:** Develop a comprehensive M&E framework with clear indicators, indicators reference sheets and data collection methodologies.
2. **Regular data quality checks:** Conduct regular data quality checks and verification exercises to ensure accuracy and reliability.
3. **Training for M&E staff:** Continuous training for M&E staff and implementing partners on data collection, management, and analysis.

6. Annexes

1. Interim Evaluation ToR (excluding ToR annexes)

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2. Interim Evaluation evaluative matrix (evaluation criteria with key questions, indicators, sources of data, and methodology)

Evaluative Questions	Indicators	Sources	Methodology
Project design			
Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.	Stakeholder (including government and communities) feedback on the accuracy, relevance, and currency of the underlying problem. Number of assumptions that are validated as accurate/deviant Number/nature/degree of significant contextual changes (e.g. political, economic, social) on project outcomes Extent of deviations from the planned activities due to incorrect assumptions or contextual changes Level of stakeholder satisfaction with how assumptions and contextual changes were managed	PPG stakeholder meeting minutes Project documents. National policies and strategies; Ley project partners APRs	Document review of APRs and interviews with project designers, PMU, and stakeholders
Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?	Degree of alignment between the existing, contextual problem being addressed and strategic goals of the project Level of stakeholder agreement that the project strategy addresses their evolving needs and priorities Evidence that the project strategy effectively addresses the identified, evolving problem Intermediate outcomes achieved as outlined in the project plan Evidence of specific lessons from past projects being applied to the current project Level of stakeholder satisfaction with the incorporation of lessons from other projects	Problem analysis reports, project design documents. National policies and strategies; key project stakeholders	Desk document review Interviews with UNDP and the project team Stakeholder interviews and focus groups

Evaluative Questions	Indicators	Sources	Methodology
Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?	Degree to which the project objectives align with the goals outlined in national development plans Relevance of the project's focus areas to priority sectors identified by the country (e.g., irrigation, small grains, village business units) Degree to which the project is integrated or coordinated with existing national programs or initiatives Level of support or endorsement from relevant government ministries and departments Number and diversity of stakeholders involved in project planning and implementation Presence of local leaders or champions driving the project Amount and type of resources (financial and in-kind) contributed by the country Extent of capacity development activities aimed at enhancing local skills and knowledge	National development plans Sectoral strategy documents Project documents, APRs Stakeholders (mainly government personnel) Minutes, Budgets Websites	Desk review of documents Triangulation interviews with PMU and stakeholders
Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, considered during project design processes?	Completeness of stakeholder mapping, including affected individuals and groups Number and diversity of affected stakeholders represented in project decision making bodies Number and quality of consultations held with affected stakeholders during project planning and implementation Level of stakeholder satisfaction regarding their involvement and influence in the project Inclusion of risks identified by affected stakeholders in the project's risk management plan	APRs Stakeholders	Document review, triangulation interviews with PMU and stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Amount and type of resources (financial, human, in-kind) contributed by stakeholders [including covenants signed by resource contributing stakeholders] Accessibility of project information to all stakeholders, including those affected by the project		
Review the extent to which relevant gender issues were raised in the project design. See Annex 9 of *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for further guidelines.	Completion and quality of a gender analysis as part of the project design Number and relevance of gender issues identified during the project design Presence of specific goals and objectives addressing gender issues within the project Number and quality of gender-sensitive indicators included in the project's MERL farmework Availability of dedicated resources (staff, funding) for addressing gender issues in the project Proportion of the budget allocated specifically for gender-related activities Degree to which gender issues are integrated across all project components and activities Number and quality of training sessions on gender sensitivity conducted for project staff and stakeholders Existence of a comprehensive gender mainstreaming strategy for the project Collection and use of gender-disaggregated data for project monitoring and evaluation	Project document, stakeholders	Document analyses Interviews with UNDP and project team Stakeholder interviews

Evaluative Questions	Indicators	Sources	Methodology
	Number of adjustments made during project implementation in response to gender-related feedback and findings		
Results Framework/Logframe			
Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, and Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.	Number and quality of outcomes and indicators on log frame that meet the SMART criteria	Project reports M&E	Document Analyses Interviews with UNDP and the project team
Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?	Degree to which the objectives and outcomes are specific, clearly defined and unambiguous Level of understanding and agreement among stakeholders about the project objectives and outcomes Completeness and thoroughness of feasibility studies Presence of realistic and achievable timelines for each project component Adequacy of allocated resources for each objective Assessment of the technical viability and readiness of project components Presence of an updated (and quality of a) risk management plan addressing potential obstacles Regular tracking and reporting of progress towards objectives and outcomes Degree of stakeholder involvement in defining and refining project objectives and related components/Nature of adjustments made to project design and implementation based on stakeholder feedback	Project proposal documents, objectives statements PMU, multi-level stakeholders	Document Analyses Interviews with UNDP and the project team

Evaluative Questions	Indicators	Sources	Methodology
Examine if progress so far has led to or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance, etc.) that should be included in the project results framework and monitored on an annual basis.	Number of stakeholders participating in PPG Number of stakeholders participating in project-sponsored training sessions and meetings	APRs Stakeholders (mainly government personnel)	Document review, triangulation interviews with PMU and stakeholders
Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART 'development' indicators, including sex-disaggregated indicators and indicators that capture development benefits.	Number of stakeholders participating in PPG Number of stakeholders participating in project-sponsored training sessions and meetings	APRs Stakeholders (mainly government personnel)	Document review, interviews with PMU and stakeholders
Ensure that the indicators (gender-disaggregated) are SMART, aligned with GCF/Results Management Framework (RMF)/Performance Measurement Frameworks (PMFs) and the guidance in the GCF project manual.	Quality of outcomes and indicators on log frame (see above)	Project document	Document review
Evaluate the Theory of Change (ToC) proposed by the project during the inception and design phases in comparison to the approach, relevance, actions, interventions, practicality, and current context. Foresee the way forward and propose necessary adjustments.	Presence and quality of a logical framework that clearly outlines the causal links between activities, outputs, outcomes, and impact Identification and articulation of key assumptions underlying the ToC Level of agreement among stakeholders on the ToC and its components Extent to which the ToC aligns with the existing needs and priorities of the target population Strength and relevance of the evidence supporting the ToC Identification of potential risks to the ToC and presence of mitigation measures Establishment of baseline data and benchmarks for key outcomes	Project document Stakeholder	Document reviews and stakeholder interviews

Evaluative Questions	Indicators	Sources	Methodology
	Existence of effective mechanisms for stakeholders to provide feedback to the ToC based on new information and feedback Number of learning events and knowledge sharing activities related to the ToC Identification and monitoring of critical success factors essential for the ToC to hold true		
Relevance, Effectiveness, Efficiency, and Responsiveness			
Were the context, problem, needs and priorities well analysed and reviewed during project initiation?	Completion and thoroughness of a context assessment Stakeholder understanding and agreement on the context analysis findings Identification and analysis of root causes of the problem Completion and comprehensiveness of a needs assessment Degree of alignment between identified needs and proposed solutions Clear prioritization of issues based on urgency and impact. Stakeholder involvement in context analysis, problem and needs identification, and priorities Quality, including currency, of data used for context, problem, needs, and priorities analysis Presence and effectiveness of mechanisms for regularly reviewing and updating the context, problem, needs, and priorities Nature of adjustments made to the initial analysis based on new or emerging information or changing conditions	APRs Stakeholders (mainly government personnel)	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Consistency of the project's problem, needs and priorities analysis with GCF's and national strategic goals		
Are the planned project objectives and outcomes relevant and realistic to the situation on the ground?	Degree of alignment between planned activities and needs identified through current local assessments Level of agreement among local stakeholders that the planned activities are relevant Adequacy of resources to implement context and situation-relevant activities Assessment of technical feasibility of planned activities given local conditions and capabilities Presence of realistic and achievable timelines for each activity Presence and effectiveness of mechanisms for obtaining regular feedback from beneficiaries and other stakeholders to influence course The existence and adequacy of up to date contingency plans to address emerging challenges on the ground	APRs Stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Do outputs link to intended outcomes which link to broader paradigm shift objectives of the project?	User engagement metrics (active users, adopters, extent of output utilization) Adoption rates for new climate-smart technologies, practices, and approaches, Replication and scaling (e.g., adoption of project models or technologies in other contexts) Behavioural changes (e.g., changes in practices or policies)	APRs Stakeholders (mainly government personnel)	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Self-reported increase in knowledge or competence e.g., by AGRITEX staff and beneficiaries Improvements in beneficiary wellbeing or quality of life Evidence of project influence on broader initiatives Changes in policies, regulations, or institutional practices Achievement of strategic goals (e.g., alignment with overarching GCF mission and GoZ development goals		
Are the outputs being achieved on time? Is this achievement supportive of the ToC and pathways identified?	Percentage of outputs/project milestones completed by the originally scheduled deadline Adherence to deadlines for intermediate deliverables leading to the final output Schedule variance, schedule performance index Number of delays encountered and their cumulative duration Root cause analysis of the delays Forecast of the time required to complete the remaining work based on current progress rates Analysis of past performance trends to forecast future schedule adherence Changes in practices, behaviours or policies resulting from the activities and use of the outputs	APRs and other stakeholder reports Stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Evidence of broader changes in policies, practices, or institutional behaviours that support the long term goas		
How is the project Theory of Change (ToC) used in helping the project achieve results/ How is the ToC applied through the project?	Extent to which project plans, strategies, and activities reference the ToC Documentation and mapping of project activities to ToC Frequency and quality of stakeholder consultations to validate and refine the ToC Number of workshops/meetings held to communicate the ToC to project staff or stakeholders Instances where the ToC IS used to guide decision making and prioritize activities Adjustments made to project activities based on feedback and learning related to the TopC Feedback from beneficiaries and stakeholders on the relevance and effectiveness of the ToC Initial evidence of the long term changes that align with the ToC's intended impact Sustainability and scalability of project benefits as envisioned in the ToC Sharing of lessons learned and best practices related to the ToC with broader audiences	Project document stakeholders	Document review Interviews with PMU Stakeholder interviews
Is the project Theory of Change (ToC) and intervention logic coherent and realistic? Does the ToC and intervention logic hold, or does it need to be adjusted? Reconstruct the ToC, if appropriate, aligning it with the GCF ToC format	Clear an logical progression from inputs to activities, outputs, outcomes, and impacts Presence of well defined causal links and assumptions at each stage	Project document	Document review

Evaluative Questions	Indicators	Sources	Methodology
	Consistency with existing research, best practices, and empirical evidence Alignment of the ToC and intervention logic with stakeholder needs, priorities, and expectations Assessment of whether the planned activities are feasible within the project's time frame, budget, and resources Evaluation of the operational and logistical requirements for implementing activities Alignment of project timelines with the complexity and scale of activities Sufficiency of financial, human, and material resources to carry out planned activities		
Verify the mitigation impact that the project has achieved. Analyse the GHG emissions achieved (including indirect emissions). Has an appropriate MRV system for GHG emission been established and implemented?	Total amount of CO2 equivalent emissions reduced or avoided Percentage reduction in emissions compared to baseline values Community engagement and participation in environmental initiatives New policies, practices, or regulations enacted to support mitigation Capacity of institutions to manage and implement mitigation measures Number of training programs conducted and participants trained in climate-smart agricultural practices Level of community awareness and knowledge about mitigation measures	APRs Stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Are the planned inputs and strategies identified realistic, appropriate and adequate to achieve the		Project document	Document review

Evaluative Questions	Indicators	Sources	Methodology
results? Were they sequenced sufficiently to efficiently deliver the expected results?	The existence of a clear road map with milestones and deliverables Alignment of activities and inputs with project goals and timeline Adequacy and timely allocation of financial, human, and material resources for each phase of the project Percentage of resources utilized as planned vs actual utilization Also check – on time delivery, budget adherence, and logical progression of activities, ensuring pre-requisite tasks are completed before subsequent ones Number of instances where poor sequencing caused delays or rework Adjustments made to strategies and activities based on monitoring and stakeholder feedback Instances of learning applied to improve sequencing and resource allocation Time and engagements made to identify and address issues arising from poor sequencing or resource allocation Degree of process optimization, including streamlined workflows and reduced redundancies Frequency and quality of coordination meetings to enhance process efficiency		
What and how much progress has been made towards achieving the overall outputs and outcomes of the project (including contributing factors and constraints)?	Milestones achieved versus planned activities The degree to which project outcomes align with project results	Project logframe APRs Stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Comparison of planned vs actual (including intended) outcomes Budget spent compared to planned expenditures (cost overruns or underspending for specific lines) Staffing (adequacy, recruitment timing, others) and impact on project, including workload balance Degree of process optimization and reduction of redundancies; process efficiency over time Frequency of multilevel stakeholder engagements and consultations on project progress Issues identified and resolved; the impact of unresolved issues Impact of PESTEL factors Quality of adjustments made to strategies and activities Implementation of CQI/CQA initiatives and their impact on project performance		
To what extent is the project able to demonstrate changes against the baseline (assessment in approved Funding Proposal) for the GCF investment criteria (including contributing factors and constraints)?	Greenhouse gas emissions reduction compared to baseline Area of land or ecosystems with improved climate resilience Number of people with increased resilience to impacts Increase in installed renewable energy capacity compared to baseline Number of new technologies or innovative practices introduced or scaled	APRs Stakeholders (mainly government personnel)	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Rate of technology adoption and replicated Number of policies, regulations, or institutional frameworks developed or strengthened Changes in community and organizational behaviors towards climate resilience and sustainability Number of people or communities gaining access to climate finance or resources Local capacity to implement climate adaptation and mitigation measures Degree of alignment with the Nationally Determined Contributions and other national climate strategies Inclusion of the project in national development or climate plans Diversity of stakeholders involved in project planning and implementation Level of stakeholder satisfaction and ownership of project outcomes		
How realistic are the risks and assumptions of the project?	Assessment of the severity and likelihood of each risk The extent to which risks are matched to interventions and contexts Frequency to which risks are evaluated/reflected upon with concerned stakeholders Effectiveness of proposed mitigation measures for high-priority risks	Project document Stakeholders	Document review Stakeholder interviews

Evaluative Questions	Indicators	Sources	Methodology
	Frequency of risk monitoring and stakeholder engagement on the same Clarity and specificity of assumptions and assumptions testing Results of assumptions validation exercises Impact of adjusted assumptions and risks on project planning and implementation Regularity and comprehensiveness of risk and assumptions report Accessibility of such information to stakeholders		
How well are risks, assumptions and impact drivers being managed?	Percentage of high-priority risks for which response strategies have been developed and implemented Timeliness of implementing risk responses after risk identification Frequency of monitoring and updating the risk register or risk management plan Reduction in risk severity or likelihood following implementation of mitigation strategies Number of risks successfully mitigated versus those escalated Quality and comprehensiveness of risk reports provided to stakeholders Level of stakeholder satisfaction with risk-related communication and transparency	APRs and information from PMU personnel Risk table/assessment, Interviews	Document review Triangulation interviews with PMU Interviews with key stakeholders Field visits
How did the project deal with issues and risks in implementation?	Incorporation of risk and assumption management activities into workplans and schedules	Project document	Document review

Evaluative Questions	Indicators	Sources	Methodology
	Instances where risk assessments and assumptions validations influenced project decisions and resource allocations Adoption of lessons learned and best practices in risk and assumptions management Stakeholder confidence in the project approach to managing risks and assumption		
To what extent did the project's M&E data and mechanism(s) contribute to achieving project results?	Instances where M&E findings influenced project management decisions Degree of alignment between M&E recommendations and project adjustments Lessons learned captured and documented through M&E activities Frequency and effectiveness of knowledge sharing sessions based on M&E findings Use of M&E data in disseminating best practices and success stories Accessibility of M&E reports and findings to project beneficiaries and partners	Project document	Document review
Are the project's governance mechanisms functioning efficiently?	Clarity of roles and responsibilities for project stakeholders, ensuring everyone knows what is expected of them Transparent and efficient decision-making processes that ensure timely decisions are made by the appropriate individuals or groups Quality of risk management practices, including identification, assessment, mitigation, and monitoring of risks throughout the project lifecycle Adherence to relevant laws, regulations, and organizational policies, with mechanisms in place	APRs Stakeholders (mainly government personnel)	Document review, triangulation interviews with PMU and stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	to hold individuals and teams accountable for their actions Communication channels among stakeholders, promoting collaboration and alignment towards project objectives (Regular or otherwise) monitoring and reporting of project performance against key milestones, budgets, and timelines (Active or otherwise) engagement with stakeholders to gather feedback, manage expectations, and ensure their needs are considered (Efficient or otherwise) allocation and utilization of resources (financial, human, and other resources) to achieve project goals Processes in place to review and improve project governance practices based on lessons learned and feedback from stakeholders		
To what extent did the design of the project help or hinder achieving its own goals?	Assessment of whether the project design is technically feasible and financially viable within the allocated resources How well the project design addresses and mitigates potential risks and uncertainties that could impact goal achievement Effectiveness in allocating resources (time, budget, manpower) to support the project's goals Clarity on how project outcomes will be measured and evaluated against predefined success criteria The flexibility of the project design to adapt to changes in requirements, scope, or external factors without compromising goals	Project document	Document review

Evaluative Questions	Indicators	Sources	Methodology
	How well the project design establishes realistic timelines and milestones that contribute to achieving the goals within specified timeframes		
Were there clear baselines indicators and/or benchmark for performance measurements? How were these used in project management? To what extent and how does the project apply adaptive management?	(Regular or otherwise) cycles of planning, implementing, monitoring, and evaluating to incorporate new information and adjust strategies accordingly (Established) processes for gathering feedback from stakeholders, team members, and beneficiaries to inform adaptive decisions Use of scenario planning techniques to anticipate potential future developments and prepare adaptive responses (Demonstrated) ability to make timely adjustments to project strategies and activities based on emerging challenges or opportunities (Effective or otherwise) response to identified risks through adaptive actions that mitigate or capitalize on changing conditions Continual improvement of project approaches and methodologies based on lessons learned from adaptive actions (Flexible) allocation and reallocation of resources (time, budget, manpower) to support adaptive management efforts Investment in building the capacity of project teams and stakeholders to effectively implement adaptive management practices	APRs Stakeholders (mainly government personnel)	Document review, triangulation interviews with PMU and stakeholders
Has the Project been effective in achieving the expected outcomes and objectives?	Effectiveness ratings of all the project indicators	APRs, M&E reports, project team and relevant stakeholders.	Document review Triangulation interviews with PMU Interviews with key stakeholders Field visits

Evaluative Questions	Indicators	Sources	Methodology
What, if any, alternative strategies would have been more effective in achieving the project objectives?	Compare the actual outputs and outcomes with the project objectives Assess if any objectives were not met and identify potential alternative strategies that could have addressed these gaps Compare the actual time taken to complete project phases with estimated timelines for the currently implemented strategies Evaluate the actual budget spent versus the projected costs Analyze whether the implemented strategy encouraged innovation and continuous improvement Expert and other stakeholder reviews on the effectiveness of the implemented strategy versus potential alternatives Collect and analyze feedback from stakeholders on their satisfaction with the project strategy and related outcomes	APRs Stakeholders	Document review, interviews with PMU and stakeholders
Progress towards results			
By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits	Evaluate how resources were optimized in successful aspects and plan for similar optimization in expansion efforts Identify innovative approaches that contributed to success and explore how these can be further developed and expanded Assess the potential for adapting successful aspects to new contexts or challenges within the project	Progress reports, APRs, knowledge products, information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders Field visits
Assess the logframe indicators against progress made towards the end of project targets using the Progress Towards Results Matrix and colour	Effectiveness ratings for all project indicators	Baseline report, APRs, Database	Document review corroborated with PMU and stakeholder interviews

Evaluative Questions	Indicators	Sources	Methodology
code progress in a "traffic lights system" based on the level of progress achieved; assign a rating for each indicator; make recommendations for the areas marked as "Not on target to be achieved (red)"			
Assess whether the total number of beneficiaries and indirect beneficiaries of the project has been properly calculated.	Data source verification Data collection method verification Beneficiary and non-beneficiary clarity (clear definition as per the indicator reference sheets plus proper and consistent application of the beneficiary criteria) Documentation completeness and accuracy Records consistency across different sources and stages of the project	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Identify remaining barriers to achieving the project objective in the remainder of the project.	Milestone achievement/Performance metrics, identify deviations and delays and causes for such Budget tracking (are funds being allocated efficiently, identify constraints and opportunities) Resource allocation (availability and utilization of human, technical, strategic, financial and material resources – identify shortages or inefficiencies) Commitment levels (commitment and support from stakeholders, levels of engagement or resistance to certain aspects) Risk register review and mitigation effectiveness Communication effectiveness Scope management (scope creep, requirements alignment, schedule adherence, critical path analysis)	Progress reports, APRs, and information from PMU personnel Risk table/assessment, Interviews	Document review Triangulation interviews with PMU Interviews with key stakeholders Field visits

Evaluative Questions	Indicators	Sources	Methodology
	Team dynamics (performance, workload distribution across all levels/actors) External factors (contextual factors – PESTEL, including regulatory and market changes) and adaptive capacity		
Include a comprehensive assessment of the impact of COVID-19 on different aspects of project implementation. Assess the impact on results delivery, overall funded activity performance along with a plan of action to address these	Project schedule (timeline delays and schedule variance) Budget and financial performance (cost overruns or otherwise and budget variance) Resource availability and utilization (staff availability, productivity levels) Supply chain and procurement (supply chain disruptions, procurement delays) Quality of outputs (quality standards due to remote working, communication effectiveness, service delivery, compliance delays/deviance) Staffing (recruitment and turnover) Indicator targets and results of the implementing partners Proposed suggestions to address the identified performance issues identified	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Project Implementation and Adaptive Management:			
Management Arrangements			
Review overall effectiveness of project management as outlined in the FAA/Funding proposal. Have changes been made and have these been approved by GCF? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.	Effectiveness ratings of the project by the evaluation Will also include: Milestone achievement rate / Schedule performance index Cost performance/Budget variance Quality of deliverables	APRs, PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Stakeholder satisfaction Risk management effectiveness Stakeholder perceptions on clarity of roles and responsibility Decision transparency perception		
Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement	Effectiveness ratings of the project by the evaluation Will also include: milestone completion, budget adherence, covenant adherence, reporting adherence, standards compliance, resource utilization, operational effectiveness, crisis response and adaptive management, communication, collaboration, accountability mechanisms, capacity development, innovation and adaptability, development and implementation of a viable innovation strategy	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Review the quality of support provided by UNDP and recommend areas for improvement	Effectiveness ratings of the project by the evaluation Will also include: Technical assistance and expertise (technical guidance and expertise availability, including timeliness of such) Capacity development and training (e.g., on financial management and reporting) Resource allocation (timeliness and other issues on resource allocation efficiency and effectiveness) M&E support (quality and comprehensiveness of the M&E framework provided by UNDP) as well as the data collection and reporting	APRs	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Administrative and logistical support (quality, including timeliness Stakeholder engagement and coordination (coordination efforts, partnership development) Strategic guidance and oversight (project alignment, oversight, and governance Problem and conflict resolution (issue resolution, support in crises) Communication and information sharing (multi-level information dissemination, transparency of processes including budgets, work planning and reviews) Sustainability and exit strategy support (sustainability planning, knowledge sharing, and documentation quality)		
Work Planning			
Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.	Schedule and budget variance Root cause analysis of delays Issue resolution rate	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?	Alignment with smart objectives Outcome focused work breakdown structure Performance metrics alignment Feedback, lessons learned, best practices, and evaluation mechanisms [Think through training and capacity development needs, stakeholder engagement, regular reviews, continuous improvement and CQA processes for improvement]	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
Examine the use of the project's results framework/ logframe as a management tool and review any changes made to it since project start	Use in decision making (decision alignment, performance reviews, communication to stakeholders to guide decisions, alignment with budget) Adaptability and flexibility (mechanisms in place to update it, revision history, stakeholder engagement, adaptive management) Monitoring and evaluation integration (how M&E helps adjust strategies) + logframe completeness and alignment	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Assess the feasibility of completing the proposed activities within the given project timeline (if extension was sought for any project milestone; please consider the revised timelines as well) and make recommendations for extensions, as need be	Schedule adherence rate Progress milestone achievement Resource availability and utilization efficiency Critical path analysis for specific project components Suggested recommendations	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Financing and Co-Financing			
Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.	Annual financial disbursements against each component Estimated costs per unit of output or outcome Budget variance analysis Estimated qualitative return on investment Audit and compliance ratings	APRs, CDRs and information from PMU personnel	Document review Triangulation interviews with PMU Interviews with stakeholders
Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.	Annual financial disbursements against each component	APRs, CDRs and information from PMU personnel	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
Have project resources been utilized in the most economical, effective and equitable ways possible (considering value for money; absorption rate; commitments versus disbursements and projected commitments; co-financing; etc.)?	Procurement options for cost-effectiveness Effectiveness in achieving objectives (extent to which objectives are being met through resource utilization) Stakeholder resource use perceptions Equity in resource distribution Cost efficiency analysis for cash and in-kind commitment	APRs, CDRs and information from PMU personnel	Document review Triangulation interviews with PMU Interviews with stakeholders
Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for a timely flow of funds?	Budget variance Internal controls compliance (control framework, compliance assessments, audit findings) Financial risk management (risk dientification, management, and mitigation) Timeliness and accuracy of reporting (reporting schedule, quality assurance, review mechanisms)	APRs, CDRs and information from PMU personnel Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Informed by the co-financing monitoring table to be filled out, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project? Comment on the use of different financial streams (parallel, leveraged, mobilized finance), as applicable in the context of the project – see GCF policy on co-finance. Discuss whether co-finance related conditions and covenants, as listed in the FAA, have been fulfilled, as applicable	Annual financial disbursements against each component Co-financing table, information by co-financing partners, actual versus planned	APRs, CDRs and information from PMU personnel	Document review Triangulation interviews with PMU Interviews with key stakeholders
Conduct an analysis of materialized co-financing and implications for project scope and results. If co-finance is not materializing as planned (timing and/or amount), assess mitigation measures, and discuss the impact of that on the project and results on the ground.	Annual financial disbursements against each component Co-financing table, information by co-financing partners, actual versus planned	APRs, CDRs and information from PMU personnel	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
Assess factors that contributed to low/high expenditure rate and impact on the project	Budget vs. actual expenditure calculation Root cause analysis Output and outcome evaluation (achievement or lack thereof) Attribution analysis	APRs, CDRs and information from PMU personnel	Document review Triangulation interviews with PMU Interviews with key stakeholders
Coherence in climate finance delivery with other multilateral entities			
Who are the partners of the project and how strategic are they in terms of capacities and commitment?	List of all the project partners IP strategic alignment with project goals (goal alignment, strategy integration, commitment) Level of capacity and required capacity development (training and development, infrastructure and resources, M&E, governance and leadership) Resource mobilization (financial, human, and technical) Collaboration and partnerships	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Is there coherence and complementarity by the project with other actors for local other climate change interventions?	Alignment with national and international climate policies and direction (including partnership with government) Complementary actions with other climate initiatives in country and beyond (stakeholder mapping, synergies, avoiding duplication) Capacity building and knowledge sharing (knowledge platforms, training, community engagement) Monitoring and evaluation of joint outcomes	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
To what extent has the project complimented other on-going local level initiatives (by	Stakeholder engagement and collaboration (stakeholder mapping, collaborative activities at multiple levels, feedback mechanisms)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders

Evaluative Questions	Indicators	Sources	Methodology
stakeholders, donors, governments) on climate change adaptation or mitigation efforts?	Contribution to local climate goals (goal and activity alignment; knowledge transfer and skills development) Community participation and empowerment		
How has the project contributed to achieving stronger and more coherent integration of shift to low emission sustainable development pathways and/or increased climate resilient sustainable development (GCF RMF/PMF Paradigm Shift objectives)? Please provide concrete examples and make specific suggestions on how to enhance these roles going forward	Estimated greenhouse gas emission reduction Land under climate smart agriculture Promotion of renewable energy and energy efficiency Policy and institutional support Community and stakeholder engagement (awareness and education, behavioural change, partnership development) Suggestions on how to enhance current efforts	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Project-level Monitoring and Evaluation Systems			
Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?	The extent to which the project is monitored in terms of data collection, currency of data, role of partners and other stakeholders, approaches to and adequacy of data collection	Progress reports, APRs, and information from PMU personnel and stakeholders M&E reports; Minutes	Document review Triangulation interviews with PMU Interviews with key stakeholders
Discuss any quality assuring mechanisms being used (e.g. ISO standard, government accreditations, international certificates, etc.)	Quality assurance mechanisms in place	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders
Is project reporting information generated by the project linked to national SDGs, NDC and other national reporting systems?	Goal mapping Outcome alignment Reporting integration and compliance with national reporting systems (reporting obligations, data collection and analysis, quality assurance) Integration with NDCs	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Stakeholder engagement and feedback on project reporting practices		
Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?	M&E budget allocation across all levels of the project (budget analysis, comparison, benchmarking) Human resources (M&E staffing plan, skills and expertise, workload analysis) M&E plan adherence (plan review, timeliness, methodological rigor) Utilization of M&E findings	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Stakeholder Engagement			
Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?	Partnership development (stakeholder mapping, partnership formation, collaborative agreements) Stakeholder engagement (engagement levels, feedback mechanisms, inclusivity) Resource mobilization (contributions tracking, resource diversification, sustainability of resource efforts) Contribution of each stakeholder towards specific project outcomes Joint monitoring and adaptive management	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with key stakeholders Field visits
Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?	Stakeholder representation, including participation levels Ownership and leadership (decision making authority, capacity development, policy integration) Consultations and feedback mechanisms (feedback channels, response rates, consensus building)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders Field visits

Evaluative Questions	Indicators	Sources	Methodology
	Governance, including transparency and accountability (information access, reporting mechanisms)		
Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?	Stakeholder engagement levels (participation rates, feedback and input, decision making influence) Public awareness and knowledge (awareness campaigns, knowledge gains, behavioural change) Alignment of stakeholder actions with project goals (initiative integration, collaborative efforts, outcome attribution) Feedback and evaluation from stakeholders (feedback channels, co-creation, adaptation and learning)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders Field visits
Is a grievance mechanism in place? If so, assess its effectiveness	Presence or lack thereof GRM (when formed, composition, structure, capacity) Timeliness of GRM response and resolutions Accessibility and transparency of GRM (information availability, language and format, who to contact) Resolution effectiveness (resolution rate, quality of resolutions, impact assessment) Stakeholder satisfaction	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Social and Environmental Standards (Safeguards)			
Validate the risks identified in the project's most current SESP/ESIA, and those risks' ratings; are any revisions needed?	Indicator targets of SESP and ESIAs	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Interviews with PMU

Evaluative Questions	Indicators	Sources	Methodology
Summarize and assess the revisions made since Board Approval (if any) to: • The project's overall safeguards risk categorization. • The identified types of risks[3] (in the SESP). • The individual risk ratings (in the SESP) .	Indicator targets of SESP and ESIAs	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Interviews with PMU
Describe and assess progress made in the implementation of the project's social and environmental management measures as outlined in the SESP submitted at the Funding Proposal stage (and prepared during implementation, if any), including any revisions to those measures. Such management measures might include Environmental and Social Management Plans (ESMPs) or other management plans, though can also include aspects of a project's design; refer to Question 6 in the SESP template for a summary of the identified management measures	Indicator targets of SESP and ESIAs	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Interviews with PMU
Reporting			
Assess how adaptive management changes have been reported by the project management and shared with the Project Board.	Frequency of reporting and comprehensiveness of adaptive management decisions, rationale, and outcomes Clarity and completeness of reports (content quality, decision context, recommendations) Impact assessment (performance metrics of the adaptive efforts, comparison analysis, learning outcomes) Stakeholder involvement and feedback collection	Progress reports, APRs, and information from PMU personnel and stakeholders PB Minutes	Document review Interviews with PMU and PB

[3] Risks are to be labeled with both the UNDP SES Principles and Standards, and the GEF's "types of risks and potential impacts": Climate Change and Disaster; Disadvantaged or Vulnerable Individuals or Groups; Disability Inclusion; Adverse Gender-Related impact, including Gender-based Violence and Sexual Exploitation; Biodiversity Conservation and the Sustainable Management of Living Natural Resources; Restrictions on Land Use and Involuntary Resettlement; Indigenous Peoples; Cultural Heritage; Resource Efficiency and Pollution Prevention; Labor and Working Conditions; Community Health, Safety and Security.

Evaluative Questions	Indicators	Sources	Methodology
Assess how well the Project Team and partners undertake and fulfil GCF reporting requirements (i.e. how have they addressed poorly-rated APRs, if applicable?)	Compliance with reporting timelines (submission schedule, review process, documentation) Quality and accuracy of reports (content relevance, data integrity, alignment with guidelines, evidence based reporting) Transparency and accountability (disclosure of information, compliance with standards, feedback mechanisms)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU and stakeholders
Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners	Documentation and lessons learned (lesson identification from adaptive management experiences, documentation format and frequency) Sharing mechanisms and platforms (dissemination strategy, communication channels, feedback mechanisms) Integration into project practices (actionable recommendations, incorporation into strategies, training and capacity development) Feedback and learning culture (feedback collection, adaptative management iterations, knowledge management)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Assess the efficiency, timeliness, and adequacy of reporting requirements	Submission schedule Review process Submission confirmation Workflow optimization and technology integration in enhancing reporting efficiency Adequacy of report content (content relevance, data accuracy, stakeholder requirements) Stakeholder satisfaction with reporting burden Continuous quality improvement and assurance metrics	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
Communications			
Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?	Stakeholder and needs mapping Stakeholders perceptions on clarity, availability and access to timely and quality information (information dissemination, communication channels, language and format) Responsiveness to stakeholder needs (response rates, issue resolution, feedback integration) Trust and relationship building Impact on stakeholder behaviour and support (advocacy and support, behaviour change)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)	Stakeholder and needs mapping Availability and access to timely and quality information (information dissemination, communication channels, language and format) Responsiveness to stakeholder needs (response rates, issue resolution, feedback integration) Trust and relationship building Impact on stakeholder behaviour and support (advocacy and support, behaviour change)	Progress reports, APRs, and information from PMU personnel and stakeholders Social media, web sites, brochures, videos, newspapers, etc.	Document review Triangulation interviews with PMU Interviews with stakeholders
Sustainability			
Validate whether the risks identified in the FAA and funding proposal, APRs, and the ATLAS Risk Management Module are the most important and whether the risk applied are appropriate and up to date. If not, explain why.	Risk validation metrics and justification		

Evaluative Questions	Indicators	Sources	Methodology
What is the likelihood of financial and economic resources not being available once the GCF assistance ends (consider potential resources from multiple sources such as public and private sectors, income generating activities, and other funding that will be adequate sustaining the project's outcomes)	Sustainability of funding sources (diversity of funding sources – state and non-state actors; long-term commitments from various sources, current/planned resource mobilization efforts) Economic viability and revenue generation (business models, cost recovery, market demand) Institutional capacity building (training and skills development, institutional strengthening, partnership development) Advocacy and engagement (policy reforms and incentives that support long-term financial and economic sustainability	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Are there any social or political risks that may jeopardize the sustainability of project outcomes?	Stakeholder perception and acceptance (public opinion, community engagement, political will) Regulatory and policy environment (policy changes, compliance requirements, advocacy and engagement) Social cohesion and community relations (including community participation and conflicts) External economic and environmental factors Government and institutional capacity	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Do the various stakeholders see that it is in their interest that the project benefits continue to flow?	Stakeholder engagement and support (participation, feedback, and input, advocacy, and endorsement) Economic and social value perception (value proposition, beneficiary satisfaction, government and institutional perceptions on value generated)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Alignment with strategic objectives (strategic alignment, policy integration, partnership opportunities) Long-term planning and investment (financial commitments, resource mobilization, capacity development)		
Is there sufficient public/stakeholder awareness in support of the long term objectives of the project?	Knowledge and understanding (awareness levels, understanding of benefits, information dissemination) Stakeholder engagement and participation (collaborative initiatives and participation levels) Support and endorsement (public statements and endorsements, advocacy efforts, policy alignment) Behaviour change and adoption (adoption rates, iterative planning and learning opportunities)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Are lessons learned being documented by the project team on a continual basis and shared or transferred to appropriate parties who could learn from the project and potentially replicate and or scale in the future?	Documentation completeness (lesson identification and related processes, context analysis, and documentation formats) Knowledge-sharing platforms (knowledge repositories, communication channels, and accessibility) Integration into decision-making (actionable recommendations, decision support, and feedback loops) Stakeholder engagement (participation, feedback mechanisms, collaborative learning, documentation of success and challenging stories and continuous improvement efforts)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Country Ownership			
To what extent is the project aligned with national development plans, national plans of action on climate change, or sub-national policy as well as projects and priorities of the national partners?	See above	Progress reports, APRs, and information from PMU personnel and stakeholders Reports on national plans, policies, guidelines, national M&E indicators, budget allocation	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
How well is country ownership reflected in the project governance, coordination and consultation mechanisms or other consultations?	Government and local stakeholder articipation and representation in governance and coordination structures and mechanisms	Progress reports, APRs, and information from PMU personnel and stakeholders PB minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
To what extent are country level systems for project management or M&E utilized in the project?	Integration of national M&E framework (indicator harmonization, data sharing, degree to which project M&E activities align with national guidelines) Capacity building and institutional strengthening efforts (including technical assistance) Utilization of national data systems (data collection, data quality and reporting) Stakeholder engagement in national systems (stakeholder participation, collaborative platforms, feedback mechanisms)	Progress reports, APRs, and information from PMU personnel and stakeholders PB minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Is the project, as implemented, responsive to local challenges and relevant/appropriate/strategic in relation to SDG indicators, National indicators, GCF RMF/PMF indicators, AE indicators, or other goals?	See sections above		
Were the modes of deliveries of the outputs appropriate to build essential/necessary capacities, promote national ownership and ensure sustainability of the result achieved?	Capacity building effectiveness (skill and knowledge development, institutional strengthening) Stakeholder involvement and ownership (participation in decision making, local leadership, empowerment) Integration with national policies and systems (policy alignment, systems strengthening, collaboration with national agencies) Long term sustainability (resource mobilization, capacity retention, community integration, learning and development)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Gender Equity			

Evaluative Questions	Indicators	Sources	Methodology
Does the project only rely on sex-disaggregated data per population statistics?	Data collection and reporting (data collection methods, reporting practices (gender-sensitive reporting) and, data quality) Inclusiveness of planning, consultations, implementation, and monitoring	Progress reports, APRs, and information from PMU personnel and stakeholders Gender action plan	Document review, interviews with PMU
Are financial resources/project activities explicitly allocated to enable women to benefit from project interventions?	Budget allocation for gender-specific activities (budget analysis and tracking, comparative analysis) Gender-focused project objectives and outcomes (output and outcome indicators, outcome monitoring) Participation and representation of women (stakeholder engagement, leadership roles, capacity development initiatives) Gender-responsive monitoring (data collection, evaluation framework, feedback mechanisms) Institutional commitment to gender mainstreaming (capacity development, accountability measures, policy integration)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Does the project account in activities and planning for local gender dynamics and how project interventions affect women as beneficiaries?	Gender analysis and contextual understanding (gender-specific needs assessment, power relations analysis) Participation and inclusion of women (representation in project activities, targeted capacity building, consultations and feedback) Gender sensitive design and implementation (targeted interventions and technologies for women, resource allocation, adaptive management)	Progress reports, APRs, and information from PMU personnel and stakeholders Gender action plan	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Gender disaggregated data collection and analysis (data collection, data quality, reporting and communication)		
Do women as beneficiaries know their rights and/or benefits from project activities/interventions?	Awareness and understanding of rights (knowledge assessment, capacity development, information dissemination) Participation in decision-making (inclusion in committees, consultations and feedback, leadership opportunities) Access to legal and support services (GRM processes and related referrals, awareness of such mechanisms, case management) Empowerment and capacity building (negotiation and survival skills development, community engagement, resource mobilization)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
How do the results for women compare to those for men?	Participation rates (representation and inclusivity; reflect on project indicators and how results compare across groups) Access to resources and opportunities (access to services and empowerment initiatives)	Progress reports, APRs, and information from PMU personnel and stakeholders Gender action plan Reports	Document review Triangulation interviews with PMU Interviews with stakeholders
Is the decision-making process transparent and inclusive of both women and men?	Representation in decision making (composition in governance and leadership groups, diversity and inclusivity of such structures) Access to information (information sharing and related platforms, timeliness, clarity) Participation in consultations and feedback mechanisms (consultative process, feedback collection, response mechanisms) Accountability and oversight (decision documentation, M&E, ethical standards)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Capacity building (targeted training programs, support networks, and empowerment initiatives)		
To what extent are female stakeholders or beneficiaries satisfied with the project gender equality results?	Perceptions and feedback from women Participation and involvement (participation rates, inclusive practices, feedback mechanisms) Empowerment and wellbeing (empowerment indicators, social integration) Knowledge and skills development (training effectiveness, perceived economic empowerment) Accessibility and inclusivity (to services, barrier reduction, distribution of project resources)	Progress reports, APRs, and information from PMU personnel and stakeholders Minutes	Document review Triangulation interviews with PMU Interviews with stakeholders
Did the project sufficiently address cross cutting issues including gender?	Gender parity in participation (ratio of male to female participants; youths, boys and girls) Reduction in GBV incidents reported with the community Decision making power (% of women in leadership positions or committees such the as the IMC) Inclusion of marginalized groups (Perceptions on the participation of marginalized groups benefiting from the project) Community engagement (frequency and quality of community consultations held) Equity in service delivery/Stakeholder participation	Progress reports, APRs, and information from PMU personnel and stakeholders Gender action plan	Document review Triangulation interviews with PMU Interviews with stakeholders
How does the project incorporate gender in its governance or staffing?	(% of women in leadership positions or committees such the as the IMC Training on gender issues	Progress reports, APRs, and information from PMU personnel and stakeholders Gender action plan	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	Inclusive decision-making processes (frequency and inclusivity of consultations with women and gender focused groups in project governance) Gender parity in staff composition, diversity in recruitment, gender-sensitive workplace policies Number/Percent of women participating in capacity development programs		
Innovativeness in results areas			
What are the lessons learned to enrich learning and knowledge generation in terms of how the project played in the provision of "thought leadership," "innovation," or "unlocked additional climate finance" for climate change adaptation/mitigation in the project and country context? Please provide concrete examples and make specific suggestions on how to enhance these roles going forward	Lessons learned entries (on "thought leadership," "innovation," or "unlocked additional climate finance" and beyond) logged in the project management systems Affirm and document specific examples and how to enhance them	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Unexpected results, both positive and negative			
What has been the project's ability to adapt and evolve based on continuous lessons learned and the changing development landscape? Please account for factors both within the AE/EE and external.	Change requests implemented Timeliness of change implementation Frequency of plan revisions Stakeholder agreement on changes Effectiveness of feedback mechanisms Lessons learned incorporated Performance improvement over time and documentation of changes made Adaptation in resources (time, budget, personnel, technologies, others) Interproject learning and adoption Measurement of how effectively adaptive resources (contingency funds and alternative	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
	approaches, technologies, means) are used ti address emerging needs or changes in scope		
Can any unintended or unexpected positive or negative effects be observed because of the project's interventions?	Observed unintended or unexpected positive or negative changes	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Field observation Interviews with stakeholders
What factors have contributed to the unintended outcomes, outputs, activities, results?	Root cause and attribution analysis	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Do any of the unintended results constitute a major change?[4]	Root cause and attribution analysis	*Progress reports, APRs, and information from PMU personnel and stakeholders*	Document review Triangulation interviews with PMU Interviews with stakeholders
Replication and Scalability			
Assess the effectiveness of exit strategies and approaches to phase out assistance provided by the project including contributing factors and constraints? Is there a need for recalibration?	Exit strategy effectiveness analysis (focus on local capacity, level of local ownership and leadership, adoption by local institutions, revenue generation at sub-project level and secured government funding, community engagement, motivation and satisfaction)	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
What factors of the project achievements are contingent on specific local context or enabling environment factors?	Indicator targets of executing partners	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Are the actions and results from project interventions likely to be sustained, ideally through ownership by the local partners and stakeholders?	Local personnel trained, retention of trained personnel Degree of local leadership involvement Strength and functionality of governance structures supporting project sustainability Degree of adoption of project practices Level of commitment government institutions demonstrated through budget allocations, policy endorsement and public statements Level of engagement and collaboration among stakeholders	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

[4] See Section '9.4 Major Changes and Restructuring' in the GCF Project Manual

Evaluative Questions	Indicators	Sources	Methodology
	Budget allocations at site level and government levels		
What are the key factors that will require attention in order to improve prospects of sustainability, scalability or replication of project outcomes/outputs/results?	Factor and attribution analysis	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders
Impact of COVID-19			
Review of the impact of COVID-19 on overall project management, implementation, and results (including on indicators and related targets)	Number of project milestones delayed due to COVID-19-related disruptions Frequency and extent of changes made to project schedules to accommodate pandemic-related challenges Percentage of project staff unavailable or working remotely due to COVID-19 restrictions Changes made to implementation methods to comply with COVID-induced specifications Frequency and duration of supply chain disruptions affecting project resources and materials Delays in transportation and delivery of project supplies due to pandemic-related restrictions Levels of community engagement and participation during the pandemic Comparison of pre-pandemic and post-pandemic progress toward achieving project goals and objectives Amount and percentage of the project budget reallocated to address COVID-19-related needs Instances of cost overruns or additional expenses incurred due to pandemic-related adjustments	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

Evaluative Questions	Indicators	Sources	Methodology
Assess the project's response to COVID-19 impacts including and not limited to responses related to stakeholder engagement, management arrangements, work planning, and adaptive management tools	Adaptation of project strategies, approaches, activities and targets in response to COVID Degree of engagement with stakeholders (including communities) in adapting project activities Transparency in reporting and communicating COVID-19 impacts and project adaptations Level of budget reallocation and cost management Changes to workplans and related budgets	Progress reports, APRs, and information from PMU personnel and stakeholders	Document review Triangulation interviews with PMU Interviews with stakeholders

3. Interview Guides used for data collection.

Meeting with UNDP

Introduction

1. **Project Overview:**
    - Can you provide a high-level summary of the project, highlighting critical covenants, key milestones, and the status?
    - How has the COVID-19 pandemic impacted the project, and what adjustments have been made?

Management and Oversight

2. **Budget Allocation:**
- How is the budget distributed across different project components?
- Have there been any budget adjustments? If so, what prompted these changes?
- Are the budget allocations aligned with the project's objectives and outcomes?

3. **Expenditure Tracking:**
    - What systems are in place for tracking and monitoring expenditures?
    - Are there any discrepancies between budgeted and actual expenditures? What are the reasons behind these discrepancies?
    - How are expenditure variances addressed and reported?
4. **Financial Reporting:**
    - How often are financial reports generated and shared with stakeholders?
    - Are these reports transparent, detailed, and easy to understand? Can you provide evidence?
    - How are financial reports used in decision-making and project adjustments?

Efficiency and Effectiveness

5. **Resource Utilization:**
- How efficiently are financial resources being utilized?
- Are there areas where resource utilization could be improved?
- How does the project ensure optimal use of resources to achieve the highest impact?

6. **Cost Management:**
    - What measures are in place to ensure cost-effectiveness in project implementation?
    - Have there been any significant cost savings or overruns? What factors contributed to these?
    - How are cost management practices documented and reviewed?

Compliance and Accountability

7. **Compliance:**
- Have there been any compliance issues related to financial management during the project?
- How are these compliance issues being addressed?
- What mechanisms are in place to ensure ongoing compliance with financial regulations?

8. **Audit and Accountability:**
    - Have any audits been conducted? If so, what were the findings and how were they addressed?
    - How is the fund management organization ensuring accountability and transparency in financial management?
    - How are audit findings communicated to stakeholders and used to improve project management?

Risk Management 9. **Financial Risks:**
- What are the main financial risks identified for the project?
- How are these risks being managed and mitigated?
- What is the process for updating the risk management plan?

10. **Contingency Planning:**
    - What contingency plans are in place for financial uncertainties or emergencies?
    - How effective has this plan been in addressing unforeseen financial challenges, including delays or failures in co-financing?
    - How often are contingency plans reviewed and updated?

Impact and Outcomes

11. **Financial Impact:** - How is fund management contributing to the overall impact and outcomes of the climate change mitigation project? - Are financial resources being directed towards activities with the highest impact potential? - How is the project measuring the financial impact on intended beneficiaries?

12. **Value for Money:**
    - How is the concept of 'value for money' being ensured in the management of funds?
    - Can you provide examples of high-impact, cost-effective initiatives funded by the project?
    - How is value for money assessed and reported?

Coordination and Communication

13. **Coordination with Stakeholders:** - How effectively are you coordinating with other project stakeholders? - Are there any challenges in coordination that need to be addressed? - How is stakeholder feedback integrated into project management?

14. **Communication and Reporting:**
    - How is financial and other project information communicated to the project steering committee and other stakeholders?
    - Are there any improvements needed in the communication and reporting processes?
    - How else have you ensured project visibility beyond traditional reporting to donors and various committees?
    - How are primary stakeholders – the beneficiaries – kept informed about the project?

Lessons Learned and Future Directions

15. **Lessons Learned:** - What lessons have been learned from project management, including co-financing and financial management, so far? - How are these lessons being incorporated into current and future financial planning? - Can you provide examples of how lessons learned have improved project outcomes?

16. **Future Planning:**
    - What are the key financial priorities and strategies for the remaining duration of the project?
    - Are there any anticipated financial challenges or opportunities that need to be planned for?
    - How is the project preparing for potential future financial uncertainties?

17. **Sustainability:**
    - How is the financial sustainability of the project being ensured?
    - Are there strategies to secure additional funding or resources if needed?
    - What long-term financial strategies are being considered to sustain project benefits?

Project Monitoring

18. **Monitoring and Evaluation Role:** - How are you monitoring the project and its risks? - Site-level monitoring (site visits, data collection, and using data to improve the project) - Related tools and databases (interact with the systems and tools, seek information on roles and responsibilities) and assess adequacy - Capacity for monitoring across levels - Reporting process and how the information links to national frameworks (SDGs, NDC, other national reporting systems) - How often do periodic reviews and reflection sessions occur, with whom, and at what levels? - What could be done differently or improved? - What is the role of technology, including AI and other anticipatory approaches, for M&E in the project?

19. **Indicators and Results Reporting:**
    - Discuss the quality of the indicators, target-setting process, and results reporting.
    - Verify reported results and triangulate across sources.
        - Agree on the source(s) of truth
        - Processes for computing results (e.g., how to calculate INDIRECT beneficiaries)

20. **Data Quality:**
    - Are there structured data quality processes in place? How are they operationalized?
    - How do data quality issues inform projectming and M&E choices?

21. **M&E Capacity:**
    - What is the M&E team currently able/not able to do at both UNDP and MLAWRR levels?
    - Is M&E currently serving as the nerve center of the project? Why/why not?
    - Are there technical or budget gaps? What else could be done to improve the role of M&E in the project?

22. **Theory of Change:**
    - Review the project theory of change and measurement metrics.
    - How has the Theory of Change guided project implementation and adaptation?
    - What changes, if any, are needed to the Theory of Change to better reflect current realities?

Meeting with the Project Steering Committee

Introduction

1. **Project Overview:**
    - Can you provide a high-level overview of what motivated the project and what the initiative has accomplished thus far?
    - Please give us a high-level overview of the technical, management, and leadership approach for the project.

Project Progress and Performance 2. **Project Objectives and Goals:**

- Are we on track to meet the project's stated objectives and goals?
- Have there been any significant deviations from the original plan and spirit of the covenant? If so, why?

3. **Milestones and Deliverables:**

- Have all project milestones been achieved as scheduled? If not, what were the reasons for the delays?
- Are the deliverables meeting the expected quality and standards?

4. **Resource Utilization:**
   - Are the financial and human resources being utilized efficiently and effectively?
   - Have there been any issues with resource allocation or budget management?

Impact and Effectiveness 5. **Emission Reductions:**

- What measurable impacts on emission reductions have been observed so far?
- What other aspects of climate change mitigation are you tracking? What have you observed thus far?
- Are the current metrics and theory of change fit for purpose? Reflect on the theory of change for possible improvements.

6. **Community and Stakeholder Engagement:**
   - How effectively are we engaging with local communities, especially women, and other stakeholders?
   - Have there been any significant feedback or concerns from stakeholders?
7. **Capacity Building:**
   - Are the capacity-building activities (training, workshops, etc.) achieving the desired outcomes? How tailored are they to meet the needs of women?
   - How are these activities contributing to the long-term sustainability of the project?

Challenges and Risks

8. **Challenges Faced:**

- What are the main challenges encountered so far in the project?
- How are these challenges being addressed?

9. **Risk Management:**
   - Can you elaborate on how the following risks are being managed and mitigated:
     - Participation of women
     - COVID-19
     - Fruition of co-financing covenants
     - Adoption of new technologies
   - Are there any emerging risks that could impact the project's success?
   - How effective have our risk management strategies been?

Adaptation and Flexibility

10. **Adaptive Management:** - Have there been any necessary changes or adaptations to the project strategy or implementation plan? - How flexible has the project been in responding to unforeseen circumstances?

11. **Innovations and Best Practices:**
    - What innovative approaches or best practices have been identified during the project?
    - How are these being incorporated into the project?

Future Directions and Sustainability

12. **Sustainability:** - What steps are being taken to ensure the long-term sustainability of the project outcomes? - How is the project fostering local ownership and capacity?

13. **Future Planning:**
    - What are the key priorities for the remaining duration of the project?
    - Are there any adjustments needed in the project's approach to enhance effectiveness?

Monitoring and Evaluation

14. **Monitoring Systems:** - How effective are the current monitoring and evaluation systems in tracking progress and impact? - Are there any gaps or areas for improvement in our monitoring processes?

15. **Data and Reporting:**
    - How is the data being collected, warehoused, and verified?
    - How is data for direct and indirect beneficiaries reported? How are estimates for reductions in emissions, land use, and other indicators calculated?
    - Is the data collected being used effectively to inform decision-making?
    - Are the reporting mechanisms transparent and efficient? Can you provide specific examples?

Advocacy for Gender Equality

16. **Gender Considerations:** - How were gender considerations incorporated into the project design and planning stages? - Does the project advocate for policies that promote gender equality in climate change mitigation? - How is the project influencing local or national policies to integrate gender perspectives in climate action? - What measures are in place to ensure that the gender-related benefits of the project are sustainable in the long term? - How does the project plan to build on and scale up its gender-related successes?

General Insights

17. **Additional Insights:** - Please share any other insights you have. What should we be on the lookout for as we go to the field?

Meeting with the National Technical Working Group (NTWG)

Role and Functioning

1. **Mandate and Responsibilities:**
    - What is the mandate of the NTWG in the context of the climate change mitigation project?
    - What are the specific roles and responsibilities of the NTWG members?
2. **Composition and Expertise:**
    - How is the NTWG composed in terms of expertise and representation from different sectors?
    - Are there any gaps in expertise that need to be addressed?

Project Implementation and Technical Guidance

3. **Technical Oversight:**
- How does the NTWG provide technical oversight and guidance to the project?
- What processes are in place for reviewing and approving project activities from a technical perspective?

4. **Standards and Best Practices:**
    - What standards or best practices are being promoted by the NTWG within the project?
    - How are these standards being implemented and monitored?

Coordination and Communication 5. **Inter-Agency Coordination:**

- How effective is the coordination between the NTWG and other government agencies or departments involved in the project?
- What mechanisms are in place to facilitate inter-agency collaboration?

6. **Internal Communication:**
    - How frequently does the NTWG meet, and how are decisions communicated to the project team and other stakeholders?
    - Are there any challenges in communication within the NTWG or with external stakeholders?

Monitoring and Evaluation

7. **Monitoring Processes:**
- What systems are in place for monitoring the technical aspects of the project?
- Is there a specific focus on women? How so?
- How effective are these monitoring systems in tracking progress, identifying issues, and addressing them across the breadth of the project?

8. **Evaluation and Feedback:**
    - How does the NTWG evaluate the effectiveness of new initiatives rolled out across project sites?
    - How is the feedback from communities, especially women, sought and incorporated into the project?
    - How are lessons learned being documented and used to further improve various facets of the project?

General Insights

9. **Additional Insights:**
- Please share any other insights you have. What should we be on the lookout for as we go to the field?

Meeting with Innovation Centre Teams

Organizational and Operational Aspects

1. **Establishment and Purpose:**
    - When was the innovation center established, and what are its primary objectives?
    - How does the center align with the broader goals of the climate change mitigation project?
2. **Governance and Management:**
    - What is the governance structure of the innovation center?
    - How are decisions made, and who are the key stakeholders involved?

Activities and Outputs 3. **Innovation Projects:**

- What specific projects or initiatives has the innovation center implemented to support climate change mitigation?
- How are these projects designed, and who are their primary beneficiaries?

4. **Research and Development:**
    - What types of research and development activities are being conducted at the innovation center?
    - Can you provide examples of innovative technologies or practices that have been developed?
5. **Capacity Building:**
    - What training and capacity-building activities are offered by the innovation center?

- How effective have these activities been in enhancing the skills and knowledge of participants?

Impact and Effectiveness 6. **Measurable Impacts:**

- What measurable impacts have the innovation center's activities had on climate change mitigation efforts?
- What specific impacts have these activities had on women from a climate change mitigation perspective?
- Are there specific success stories or case studies that illustrate these impacts?

7. **Adoption and Scale:**
    - How widely have the innovations developed at the center been adopted by the target communities or sectors?
    - What strategies are in place to scale up successful innovations?

Challenges and Solutions 8. **Operational Challenges:**

- What are the main challenges the innovation center has faced in implementing its activities?
- How have these challenges been addressed, and what solutions have been effective?

9. **Resource Constraints:**
    - Are there any resource constraints (financial, technical, human) that impact the center's operations?
    - How is the center managing these constraints?

Stakeholder Engagement and Collaboration 10. **Partnerships:** - What partnerships has the innovation center established with other organizations (e.g., government agencies, NGOs, private sector)? - How effective are these partnerships in supporting the center's objectives?

11. **Community Involvement:**
    - How are local communities and stakeholders involved in the activities of the innovation center?
    - What feedback have you received from these stakeholders?

Monitoring and Evaluation 12. **Monitoring Systems:** - What systems are in place to monitor and evaluate the performance and impact of the innovation center's activities? - How effective are these systems, and what improvements can be made?

13. **Data Collection and Reporting:**
    - How is data on the center's activities and impacts collected and reported?
    - Are there any challenges in data collection and reporting, and how are they being addressed?

Sustainability and Future Directions 14. **Sustainability:** - What measures are being taken to ensure the sustainability of the innovation center and its initiatives? - How is the center planning to continue its activities beyond the duration of the climate change mitigation project?

15. **Future Plans:**
    - What are the key priorities and plans for the innovation center?
    - Are there any new initiatives or areas of focus being considered to enhance the center's impact?

16. **Recommendations:**
    - What recommendations do you have for improving the innovation center's operations and impact?
    - Are there specific areas where additional support or resources are needed?

Meeting with Government Stakeholders and POCs at the Provincial and District Levels

Project Implementation and Coordination

1. **Role and Responsibilities:**
    - What specific roles and responsibilities does your department have in the climate change mitigation project?
    - How are these roles and responsibilities defined and communicated?
2. **Inter-Departmental Coordination:**
    - How effective is the coordination between your department and other government departments involved in the project?
    - What mechanisms are in place to facilitate this coordination, and how can they be improved?
3. **Project Integration:**
    - How well is the project integrated into your department's existing projects and policies?
    - Are there any conflicts or synergies between this project and other initiatives your department is working on?

Progress and Performance 4. **Project Progress:**

- How do you assess the progress of the project activities that your department is responsible for?
- Are there any significant achievements or milestones reached so far?

5. **Performance Measurement:**
    - What metrics or indicators are being used to measure the performance of your department's contributions to the project?

- How effective are these metrics in capturing the impact and progress?

Challenges and Solutions 6. **Challenges Encountered:**

- What are the main challenges your department has faced in implementing its part of the project?
- How have these challenges been addressed, and what solutions have been most effective?

7. **Resource Constraints:**
   - Are there any resource constraints (financial, human, technical) that have impacted your department's ability to fulfill its role in the project?
   - How are these constraints being managed?

Impact and Outcomes

8. **Environmental Impact:**

- What environmental impacts has your department observed because of the project activities?
- Are there specific examples of positive environmental changes or benefits?
- How does the project enhance the adaptive capacities and resilience of both women and men to climate change?
- Are there specific strategies to support women, who often face greater vulnerabilities to climate impacts?

9. **Policy Impact:**
   - How has the project influenced policymaking within your department?
   - Are there any new policies or changes to existing policies that have been implemented because of the project?

Stakeholder Engagement and Communication

10. **Stakeholder Engagement:** - How is your department engaging with other stakeholders (e.g., local communities, NGOs, private sector) in the project? - Are there any challenges in stakeholder engagement, and how are they being addressed? - Are your community-facing training and capacity-building projects equally accessible to both women and men? Is the training content tailored to address the specific roles and needs of women and men in climate mitigation activities? - What measures are in place to encourage women's participation in training sessions?

11. **Communication Strategies:**
    - How effective are the communication strategies used to disseminate information about the project within your department and to the public?
    - What improvements can be made in communication and outreach efforts?

Monitoring and Evaluation

12. **Monitoring Systems:** - What monitoring and evaluation systems are in place to track the progress and impact of your department's contributions to the project? - How effective are these systems, and what improvements can be made?

13. **Data Collection and Reporting:**
    - How is data collected and reported for your department's activities in the project?
    - Are there any gaps or challenges in data collection and reporting?

Sustainability and Future Directions

14. **Sustainability:** - What measures are being taken to ensure the sustainability of the project outcomes beyond its duration? - How is your department planning to continue the initiatives started by the project?

15. **Future Plans:**
    - What are the key priorities for your department in the remaining duration of the project?
    - Are there any planned adjustments or new initiatives to enhance the effectiveness of the project?

16. **Recommendations:**
    - What recommendations do you have for improving the project's implementation and impact?
    - Are there any specific areas where additional support or resources are needed?

Meetings with Lead and Follower Farmers

Understanding and Participation

1. **Project Awareness:**
   - How did you first hear about the climate change mitigation project?
   - What is your understanding of the project's goals and activities?
2. **Involvement:**
   - How were you selected to participate as a lead/follower farmer in this project? Check for differences by gender.
   - What motivated you to join and participate in this project?

Training and Capacity Building

3. **Training Projects:**

- What types of training or capacity-building activities have you attended as part of this project?
- How effective have these trainings been in enhancing your knowledge and skills?
- Are training and capacity-building projects equally accessible to both women and men?

- What measures are in place to encourage women's participation in training sessions?

4. **Knowledge Transfer:**
    - How have you applied the knowledge and skills gained from the training in your farming practices?
    - For lead farmers: How have you shared this knowledge with follower farmers? Assess the effectiveness and appreciation of the learning model.

Implementation of Practices 5. **Adoption of Practices:**

- What new climate-resilient or mitigation practices have you adopted because of the project?
- How easy or difficult has it been to implement these practices? Observe for differences or indifference by gender.

6. **Challenges:**
    - What challenges have you faced in adopting and implementing these new practices? Observe for differences or indifference by gender.
    - How has the project affected the workload of women and men?
    - How have you addressed or managed these challenges?

Impact and Benefits

7. **Environmental Impact:**

- Have you noticed any changes in the environment (e.g., soil health, water availability, biodiversity) since adopting the new practices?
- What specific environmental benefits have you observed?

8. **Economic Impact (with a strong focus on gender dynamics):**
    - How have the new practices impacted your agricultural productivity and income?
    - Are there any financial benefits or cost savings that you attribute to the project?
    - Are the economic benefits of the project equitably distributed between women and men?
    - How does the project address potential barriers women may face in accessing these benefits?
9. **Social Impact (with a strong focus on gender dynamics):**
    - How has participation in the project affected your household and community relationships?
    - Have there been any changes in your role or status within the community?

Feedback and Suggestions

10. **Project Support:** - How satisfied are you with the support and resources provided by the project team? - What additional support or resources would help you better implement and sustain the new practices? - Are there feedback mechanisms in place for women and men to voice their concerns and suggestions about the project? - How are these feedback mechanisms ensuring the inclusion of women's voices?

11. **Communication:**
    - How effective is the communication between you and the project team?
    - Are there any improvements needed in how information is shared?
12. **Suggestions for Improvement:**
    - What suggestions do you have for improving the project's activities and support?
    - Are there any other climate change mitigation practices you think should be included in the project?

Sustainability and Future Directions

13. **Sustainability:** - How confident are you in continuing the new practices once the project ends? - What measures are you taking to ensure the sustainability of the practices? - What can be done to ensure that the gender-related benefits of the project are sustainable in the long term?

14. **Scaling and Replication:**
    - For lead farmers: How do you plan to continue supporting follower farmers in adopting these practices?
    - For follower farmers: How likely are you to recommend these practices to other farmers not involved in the project?
    - Would you be willing to participate in future similar climate change mitigation interventions? Observe for differences or indifference by gender.

General Insights

15. **Additional Insights:** - Please share any other reflections you have.

Meeting with the Irrigation Management Committee

Organizational and Operational Aspects

1. **Structure and Mandate:**
    - Please walk us through the structure of the IMC. Who is involved? How were they selected and what is the mandate?
    - How are women participating in the IMC, and what roles do they occupy?

Project Implementation and Progress

2. **Project Objectives and Activities:**
   - How well are we meeting the objectives of the irrigation management component of the project?
   - Are the activities being implemented as planned? If not, what are the main reasons for any deviations?
3. **Timeline and Milestones:**
   - Are we on track with the implementation timeline and milestones for the irrigation management activities?
   - Have there been any significant delays, and what are the reasons for these?

Technical Performance and Effectiveness

4. **Irrigation Techniques and Technologies:**
   - What types of irrigation techniques and technologies have been introduced or improved through this project?
   - How effective are these techniques in improving water use efficiency and crop yield?
5. **Water Management:**
   - How has the project impacted water management practices among farmers?
   - Are there measurable improvements in water conservation and distribution?

Environmental Impact

6. **Climate Resilience:**
   - How are the irrigation practices contributing to increased climate resilience of the agricultural systems?
   - Have there been any observed changes in soil health, water availability, or crop productivity due to the new practices?
7. **Sustainability:**
   - Are the irrigation methods being promoted sustainable in the long term, considering local environmental conditions?
   - What measures are in place to ensure the sustainability of water resources?

Community and Stakeholder Engagement 8. **Farmer Participation:**
   - How engaged are local farmers and communities in irrigation management activities?
   - What feedback have farmers provided regarding the new irrigation practices?
9. **Training and Capacity Building:**
   - What training and capacity-building activities have been conducted to support farmers and local communities?
   - How effective have these activities been in building local capacity for sustainable irrigation management?

Socio-Economic Impact

10. **Economic Benefits:** - Have the new irrigation practices led to increased agricultural productivity and income for farmers? Assess for differences or otherwise by gender. - What economic benefits, if any, have been observed among the participating communities? Assess for differences or otherwise by gender.

11. **Equity and Inclusiveness:**
    - How inclusive is the project in terms of involving marginalized groups, such as smallholder farmers, women, and youth?
    - Are there any barriers to participation that need to be addressed?

Challenges and Adaptations

12. **Challenges Faced:** - What are the main challenges encountered in implementing irrigation management activities? - How are these challenges being addressed?

13. **Adaptation Strategies:**
    - Have any changes or adaptations been made to the irrigation strategies in response to unforeseen challenges or new information?
    - How flexible and adaptive is the project to changing conditions and feedback?

Monitoring and Evaluation

14. **Monitoring Systems:** - How effective are the current monitoring systems in tracking the performance and impact of the irrigation activities? - Are there any gaps or areas for improvement in our monitoring processes?

15. **Data and Reporting:**
    - What data do you collect? Is the data collected being used effectively to inform decision-making and improve practices?
    - Are the reporting mechanisms transparent and efficient?
16. **Feedback Mechanisms:**
    - Are there feedback mechanisms in place for women and men to voice their concerns and suggestions about the project?
    - How are these feedback mechanisms ensuring the inclusion of women's voices?

Future Directions

17. **Next Steps and Priorities:** - What are the key priorities for the next phase of the project regarding irrigation management? - Are there any adjustments needed in the project's approach to enhance effectiveness and climate change mitigation impact?

18. **Sustainability and Scaling:**
    - What steps are being taken to ensure the long-term sustainability of the irrigation practices introduced?
    - How can successful practices be scaled up or replicated in other areas?

General Insights

19. **Additional Insights:** - Please share any other insights you have.

4. Mission itinerary

Date	Activities
Monday, July 1	• Introductory meeting with UNDP leadership • Updating fieldwork schedule and finalizing administrative issues
Tuesday, July 2	• Meeting with the National Program Coordinator – 830am • Meeting with DR&SS – 9 am • Department of mechanization – 11am • Department of irrigation – 12am • MSD - 2pm • NDA - Climate change management unit – 330pm
Wednesday, July 3	• Meeting with ZINWA – 9am • AGRITEX (Crops and Livestock) – 10am • Meeting with the Permanent Secretary, Ministry of Agriculture • Travel to Mutare
Thursday, July 4	• Provincial Courtesy call in Mutare • Travel to Chimanimani • District courtesy call • FGDs at the farmer field school in ward 1 (involving two farmer field school participants) and meetings with Agricultural Extension Officers • Chipinge District courtesy call • Discussions with the P&DAEOs
Friday, July 5	• Visit and engage with actors at the Village Business Unit • Proceed to a farmer field school in Ward 1 (also view village savings and lending schemes; mechanised contours); engage with the AEO (facilitates activitiers at the Farmer Field Schools • Proceed to Rimbi (Ward 20/22) - the proposed site for the irrigation scheme (meetings with AGRITEX and Dept of Irrigation) • Proceed to Chisumbanje Innovation Centre (value chain based – Sesami value chain – centre to coordinate specific value chains – crowding in various players – inputs, processes, networks, upto the off-taker – what is the critical question they should answer – developing products e.g. climate resilient seeds and the much-needed services upto markets – AGRITEX plays a critical role)
Saturday, July 6	• Courtesy call at the Provincial level • Visit the innovation Centre at Makoholi Research Institute • Visit Masvingo district – Zvinyaningwe Irrigation Scheme, observe the irrigation-based farmer field school integrated with VSL and O&M plants – beneficiaries, IMC, and technical work
Sunday, July 7	• Reflections with the UNDP team accompanying us to the field • Visit Bindamombe irrigation scheme (Chivi)
Monday, July 8	• Courtesy call at the district level • Chivi – FGD with follower farmers at a specific site of their choice • Go to Bwanya (Chivi) – visit the revitalized irrigation scheme – uses both solar and electricity; also do the GRM review (engaging with committees at the site level) – at irrigation schemes
Tuesday, July 9	• Fieldwork in Mwenezi complete irrigation scheme (production has not yet started) • Pikini-jawanda irrigation scheme • Dryland farmer field school

Wednesday, July 10	• Meeting with the Provincial focal person(s) and other provincial key informants in Gwanda • Irrigation scheme (Masholomose, Ward 1) • Ward 3 - livestock-based farmer field school - Umzingwane • Visit the Innovation Centre at Esigodini Agricultural College
Thursday, July 11	• Visit the Innovation Centre in Matopos • Midlo irrigation scheme – there is an activity – designs are also different – sprinkler-based – automatic rain gauge and hydrologic gauges • Go to ward 10 – farmer field school that does post-harvest activities.
Friday, July 12	• Travel to Harare
Date TBC	• Virtual presentation of preliminary findings

5. List of persons interviewed

List of interviews_IE_GCF_upd

6. List of documents reviewed

1. Funding Proposal
2. Funded Activity Agreement (FAA)
3. UNDP Project Document
4. UNDP Environmental and Social Screening results
5. Project Inception Report
6. All Annual Performance Reports (APRs)
7. Audit reports
8. All monitoring reports prepared by the project
9. Financial and Administration guidelines used by Project Team
10. GHG emissions data or access to EMIS
11. Project Concept Note
12. Project operational guidelines, manuals and systems
13. Country Programme Document for Bosnia and Herzegovina 2021 – 2025
14. Minutes of the Project Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
15. Project site location maps
16. UNDP Strategic Plan 2022-2025
17. Nationally Determined Contribution (NDC) of Bosnia and Herzegovina for the period 2020-2030
18. Climate Change Adaptation and Low Emission Development Strategy for BiH
19. Initial national communication 1 (inc) of Bosnia and Herzegovina under the United Nations Framework Convention on Climate Change (UNFCCC)
20. Second national communication of Bosnia and Herzegovina under the United Nations Framework Convention on Climate Change
21. Third national communication and second biennial update report on greenhouse gas emissions of Bosnia and Herzegovina
22. Tipologija javnih zgrada
23. National Investment Framework document
24. Green Jobs - Analysing the Employment Impact of Energy Efficiency Measures in BiH
25. SECAP example
26. DEA example
27. STUDIJA ENERGETSKE OBNOVE STAMBENIH ZGRADA NA PODRUČJU GRADA TUZLA
28. Gender Action Plan – GCF LCPB – Report

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated.

MTR Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: _____Alexandre Diouf_____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at _____Dakar_____ (Place) on 8.7.2024_____ (Date)

Signature: _____  _____

7. Signed UNEG Code of Conduct form

Evaluators/Consultants:

10. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
11. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
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18. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated.

MTR Consultant Agreement Form

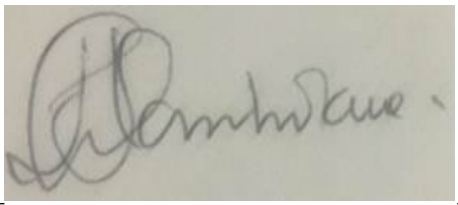
Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: _____Hamfrey Sanhokwe_____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at _____Harare, Zimbbawe_____ (Place) on ___07/08/2024_____ (Date)

Signature: _____  _____

8. Signed Interim Evaluation final report clearance form

9. Annexed in a separate file: Audit trail from received comments on draft Interim Evaluation report

10. Proposals for future directions underlining main objectives

10.1. Scaling up the Village Business Units model to increase community resilience to climate change effects

The Village Business Unit model could be a way to scale up the benefits of this project. The Village Business Units (VBU) model is a significant development strategy in Zimbabwe, aimed at enhancing rural economic growth, empowering local communities, and aligning with broader governmental policies and programs. This analysis critically examines the model, its importance to local communities, its alignment with government initiatives, and its potential to increase community resilience and combat climate change.

Importance for Local Communities

The Village Business Units (VBU) model holds significant importance for local communities in Zimbabwe, offering multiple benefits that contribute to economic empowerment, social cohesion, and skill development.

Economic Empowerment and Livelihoods

VBUs provide a crucial platform for economic empowerment by enabling rural communities to create and manage their businesses. This grassroots approach leverages local resources, skills, and traditional knowledge, which are pivotal for sustainable development. By generating income and creating employment opportunities, VBUs help reduce poverty and improve living standards. For example, agricultural VBUs enhance food security by producing and selling crops, which not only provide a reliable food source for the community but also generate income from surplus sales. Non-agricultural VBUs further diversify income sources through crafts, small-scale manufacturing, and services. This diversification is vital in creating a resilient local economy that can withstand economic fluctuations and external shocks.

Social Cohesion and Community Development

The cooperative nature of VBUs fosters social cohesion and collective action within rural communities. When community members work together on shared economic activities, they develop a strong sense of ownership and responsibility. This collective effort is not only beneficial for individual businesses but also for the community. Through collaboration, communities can pool resources, share knowledge, and support each other in overcoming challenges. This solidarity can lead to the development of improved infrastructure, such as better roads and storage facilities, as well as enhanced access to services like education and healthcare. Additionally, the social capital generated through these cooperative ventures strengthens community bonds and promotes a culture of mutual aid and collective progress.

Skill Development and Capacity Building

VBUs often involve comprehensive training and capacity-building programs that equip community members with essential entrepreneurial skills, technical know-how, and business management capabilities. These skills are fundamental for the success and sustainability of the business units. Training programs typically cover areas such as financial management, marketing, product development, and value addition. By enhancing these skills, VBUs increase their ability to compete in larger markets and secure better prices for their products. Furthermore, the knowledge gained through these training sessions can be applied to other areas of community development, fostering a culture of continuous learning and innovation. This emphasis on skill development ensures that VBUs are not only

economically viable but also capable of adapting to changing market conditions and technological advancements.

Relevance to Government of Zimbabwe Policies and Programs

The Village Business Units (VBU) model aligns seamlessly with several key policies and programs of the Government of Zimbabwe, thereby reinforcing national development objectives. One of the primary alignments is with the National Development Strategy 1 (NDS1), which emphasizes inclusive economic growth, rural development, and poverty alleviation. By promoting localized economic activities and reducing rural poverty, VBUs contribute directly to these goals. They enable communities to harness local resources and skills to create sustainable business ventures, fostering economic empowerment and job creation at the village level.

In terms of agricultural and rural development, VBUs support the objectives of the Comprehensive Africa Agriculture Development Programme (CAADP) and the Zimbabwe Agriculture Investment Plan (ZAIP). Both programs aim to enhance agricultural productivity and ensure food security. VBUs contribute to these aims by fostering climate-resilient farming practices and improving access to markets. This approach not only boosts agricultural output but also ensures that farmers are better equipped to deal with climate variability and market fluctuations. By improving the resilience and productivity of the agricultural sector, VBUs play a pivotal role in achieving the broader goals of CAADP and ZAIP.

Moreover, the Government of Zimbabwe's policies on climate change and sustainable development, such as the National Climate Policy and the National Adaptation Plan (NAP), underscore the importance of building resilience and reducing vulnerability to climate change. VBUs, especially those focused on agriculture, are crucial in this regard. They adopt climate-smart agricultural practices and enhance water management systems, which are essential for mitigating the impacts of climate change. These practices not only improve the sustainability of agricultural production but also enhance the overall resilience of rural communities against climate-related shocks.

Potential in Increasing Community Resilience and Fighting Climate Change

The Village Business Units (VBU) model offers substantial potential in enhancing community resilience and combating climate change. By integrating climate-smart agricultural practices, innovative water resource management, access to climate information, and renewable energy solutions, VBUs can play a pivotal role in creating sustainable and resilient rural communities.

Agricultural VBUs can significantly mitigate the impacts of climate change by adopting climate-smart practices. These practices include the cultivation of drought-resistant crops, the implementation of efficient irrigation techniques, and the promotion of agroforestry. Drought-resistant crops are specially bred to withstand periods of low rainfall, ensuring that farmers can maintain their yields even during adverse weather conditions. Efficient irrigation techniques, such as drip irrigation, minimize water usage while maximizing crop hydration, making the best use of available water resources. Agroforestry, which involves integrating trees and shrubs into agricultural landscapes, enhances soil health, increases biodiversity, and provides additional sources of income through the production of timber, fruits, and nuts. Together, these practices not only improve crop yields but also contribute to the long-term sustainability of farming activities by enhancing soil health and biodiversity.

In addition, effective water resource management is crucial for building climate resilience in rural communities. VBUs focused on this area can implement innovative solutions such as rainwater harvesting, the construction of small dams, and various water conservation techniques. Rainwater harvesting involves collecting and storing rainwater for agricultural and domestic use, providing a reliable water source during dry periods. Small dams can capture and store runoff water, which can then be used for irrigation and other needs. Water conservation techniques, such as mulching and the use of

cover crops, help retain soil moisture and reduce water evaporation. These measures collectively ensure a reliable water supply, reducing vulnerability to droughts and water scarcity, and supporting continuous agricultural production and domestic needs.

Moreover, the establishment of systems for disseminating climate information and early warning systems is another critical aspect of the VBU model. Access to accurate and timely climate information enables farmers and community members to make informed decisions regarding crop planting, irrigation scheduling, and harvesting times. Early warning systems can alert communities to impending climate-related hazards, such as droughts, floods, or extreme weather events, allowing them to take precautionary measures to protect their crops and livelihoods. This enhanced preparedness and responsiveness to climate variability can significantly reduce crop losses, improve food security, and ultimately build more resilient communities.

Finally, promoting the use of renewable energy sources is an integral component of the VBU model. By adopting solar power for irrigation and processing activities, VBUs can reduce their reliance on non-renewable energy sources, decrease greenhouse gas emissions, and provide a sustainable energy solution for rural communities. Solar-powered irrigation systems, for example, use solar panels to pump water, making irrigation more accessible and affordable for farmers. Renewable energy solutions also extend to other areas, such as solar-powered refrigeration for preserving produce and solar drying techniques for value addition. These sustainable practices not only contribute to a reduced carbon footprint but also offer cost-effective and environmentally friendly alternatives to traditional energy sources.

Challenges and Recommendations

Despite the potential benefits, the Village Business Units (VBU) model faces several challenges that need to be addressed to maximize its impact. One significant obstacle is access to finance. Limited financial resources constrain the growth and sustainability of VBUs, making it difficult for them to invest in necessary infrastructure, technology, and inputs. Innovative financing mechanisms, such as micro-loans and grants tailored to the needs of rural entrepreneurs, are essential to overcome this barrier. Partnerships with microfinance institutions and development banks can help bridge the financing gap, providing VBUs with the capital they need to thrive.

Market access is another critical challenge for VBUs. Often, these units struggle to reach larger markets due to logistical challenges and a lack of market information. Strengthening market linkages and improving transportation infrastructure can significantly enhance the ability of VBUs to access broader markets. Additionally, providing market intelligence and support in developing effective marketing strategies can help VBUs achieve better prices for their products and expand their customer base.

Capacity building is crucial for the sustainability of VBUs. Continuous training and support are necessary to equip VBU members with essential business management, technical skills, and knowledge of climate resilience. Government and development partners should invest in ongoing capacity-building programs that focus on these areas. Such programs ensure that VBU members can effectively manage their enterprises, adapt to changing market conditions, and implement sustainable practices that enhance productivity and resilience.

Creating an enabling policy environment is also vital for the success of VBUs. This includes reducing bureaucratic hurdles, providing tax incentives, and ensuring that policies support the growth of small and medium-sized enterprises (SMEs) in rural areas. Advocacy efforts should focus on engaging policymakers to develop and implement supportive policies that facilitate the establishment and growth of VBUs. By addressing these challenges through targeted interventions and strategic support, VBUs can realize their full potential, contributing significantly to rural development, economic empowerment, and climate resilience in Zimbabwe.

10.2. Expansion of Climate-Smart Agriculture Initiatives

Objective: Build on the success of VBUs by expanding climate-smart agriculture practices across more rural communities in Zimbabwe.

Description:

- Introduce more advanced techniques such as precision farming, agroforestry, and integrated pest management.
- Establish demonstration farms and training centers to educate farmers on sustainable agricultural practices.
- Provide subsidies or incentives for farmers who adopt climate-smart practices, including the use of organic fertilizers and pest control methods.
- Develop a mobile application to disseminate real-time climate information and farming tips to farmers.

Potential Impact: This project would further increase agricultural productivity, enhance food security, and build resilience to climate change by promoting sustainable farming practices.

10.3. Development of Rural Renewable Energy Solutions

Objective: Promote the use of renewable energy sources to power VBUs and rural households, reducing reliance on non-renewable energy.

Description:

- Install solar panels, wind turbines, and biogas systems in rural communities to provide clean, reliable energy.
- Create training programs for local technicians to maintain and repair renewable energy systems.
- Establish microgrids to ensure energy access for off-grid communities.
- Develop partnerships with renewable energy companies to provide affordable financing options for rural communities.

Potential Impact: By providing reliable and sustainable energy sources, this project would support the continuous operation of VBUs, improve living standards, and reduce carbon emissions.

10.4. Rural Digital Inclusion and E-Commerce Platforms

Objective: Bridge the digital divide and enhance market access for VBU products through digital inclusion and e-commerce platforms.

Description:

- Set up internet access points and digital literacy training centers in rural areas.
- Develop an e-commerce platform specifically for rural entrepreneurs to market and sell their products online.
- Offer digital marketing workshops to help VBU members promote their products effectively.
- Partner with logistics companies to streamline the delivery process for online orders.

Potential Impact: This project would increase market access for rural products, enhance digital skills among community members, and boost the economic viability of VBUs.

10.5. Comprehensive Water Resource Management Projects

Objective: Ensure sustainable water management practices to support agriculture and household needs in rural areas.

Description:

- Implement large-scale rainwater harvesting systems and build new reservoirs to store water during the rainy season.
- Develop community-based water management committees to oversee the maintenance and equitable distribution of water resources.
- Introduce water-efficient irrigation technologies such as drip and sprinkler systems.
- Conduct educational campaigns on water conservation and management practices.

Potential Impact: Enhanced water resource management would ensure a reliable water supply for agricultural activities and household use, mitigating the impacts of droughts and water scarcity.

10.6. Strengthening Women's Economic Empowerment Programs

Objective: Enhance the economic empowerment of women in rural areas through targeted programs and support mechanisms.

Description:

- Establish women-focused VBUs in sectors such as agro-processing, handicrafts, and small-scale manufacturing.
- Provide microloans and financial literacy training specifically for women entrepreneurs.
- Create mentorship programs connecting successful women entrepreneurs with aspiring businesswomen in rural areas.
- Advocate for policies that support gender equality in rural economic activities and decision-making processes.

Potential Impact: Empowering women economically would lead to more inclusive and equitable development, improve household incomes, and foster gender equality in rural communities.

11. IE Dissemination and Knowledge Management Plan

Objectives

1. Disseminate key findings from the mid-term evaluation to various stakeholders.
2. Facilitate knowledge sharing that enhances climate resilience in agricultural livelihoods.
3. Promote stakeholder engagement in scaling the project's innovations.
4. Encourage replication of successful practices in similar contexts.

Target users

- National and Local Governments: Project implementing partners at national and sub-national levels.
- NGOs and Development Partners: Organizations working on climate change adaptation and agricultural resilience.
- Agricultural Extension Officers: On-the-ground agents who facilitate knowledge transfer to farmers.

- Farmers and Farmer Associations: Smallholder farmers and cooperatives, especially those directly affected by climate change.
- Academic and Research Institutions: Universities and research organizations focused on climate change, agriculture, and rural development.
- Private Sector: Agricultural businesses, agri-tech companies, and weather data service providers.
- Women's Groups and Youth Associations: Key beneficiaries of the project in terms of empowerment and livelihoods.

Dissemination Channels

1. Workshops and Stakeholder Forums
- Organize in-person or virtual workshops at national and sub-national levels.
- Ensure inclusion of government officials, non-government actors, and farmer associations/groups in the three targeted provinces (and beyond).
- Include presentations of key evaluation findings and lessons learned, followed by participatory discussions on scaling the innovations.
- Targeted workshops for women's and youth groups to discuss gender-specific impacts.

2. Policy Briefs and Reports
- Prepare concise, actionable policy briefs summarizing evaluation findings.
- Tailor messages to decision-makers in government and development partners.
- Ensure accessible language and specific recommendations for policy changes and program improvements.

3. Mobile Platforms and Digital Solutions
- Use SMS and WhatsApp to reach farmers, especially in remote areas.
- Disseminate climate information, adaptive agricultural practices, and evaluation summaries in local languages.
- Collaborate with local radio stations and social media platforms to reach a broader audience.

4. Interactive Knowledge Portals
- Develop an online knowledge hub that houses reports, best practices, and case studies from the project.
- Create downloadable guides for farmers and agricultural extension officers on resilient farming techniques.
- Ensure the platform has user-friendly navigation and allows for continuous updates.

5. Research Papers and Academic Conferences
- Publish peer-reviewed papers in academic journals focused on climate resilience and sustainable agriculture.
- Present findings at national and international conferences to share innovations with the broader academic and development communities.

6. Field Visits and Demonstrations
- Organize field visits for stakeholders to observe successful climate-resilient farming techniques.
- Set up demonstration plots where new agricultural practices can be showcased to farmers and agricultural extension workers.

4. Stakeholder Involvement
- Feedback Mechanism: Establish feedback loops where stakeholders, especially farmers and agricultural officers, can provide insights on the effectiveness of knowledge dissemination.
- Partnerships: Collaborate with mobile service providers and local organizations to ensure information reaches the most vulnerable communities.
- Capacity Building: Train agricultural extension officers and local leaders to act as knowledge intermediaries, ensuring sustained information flow even after the project ends.

5. Monitoring and Evaluation

- Track engagement: Use metrics such as workshop attendance, policy brief downloads, and SMS reach.
- Assess impact: Conduct follow-up surveys to determine if and how the shared knowledge has been applied in agricultural practices.
- Adapt the strategy: Revise the dissemination plan as necessary, based on feedback from stakeholders and observed outcomes.