MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) REPORT

RESILIENCE AGRICULTURE CLUSTER PROJECT (RACP) FOR ZIMBABWE

IN

MIDLANDS

PREPARED BY

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WATER AND ENVIRONMENT CLUSTER

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EXECUTIVE SUMMARY

The Resilience Agriculture Cluster Project is a Government of Zimbabwe initiative financed by the African Development Bank and the International Fund for Agricultural Development. It seeks to enhance climate resilience, agricultural productivity and rural livelihoods in five provinces through the rehabilitation and climate proofing of irrigation schemes, market infrastructure improvements and catchment restoration. This Environmental and Social Management Plan addresses the five targeted irrigation schemes in Midlands Province. These include Sessombe, Senkwasi, Wozoli, Igogo, and Milsonia. The ESMP ensures that all project activities comply with Zimbabwean legislation, the ten Operational Safeguards under the AfDB Integrated Safeguards System and the thirteen IFAD Social, Environmental and Climate Assessment Procedures Standards.

The project area comprises diverse agro ecological zones and communities that rely heavily on irrigated agriculture and livestock. The ESMP confirms that although the project introduces significant construction and operational activities, most associated risks are localised, manageable and reversible. The project is therefore classified as a Category 2 intervention under AfDB ISS and IFAD SECAP. The ESMP provides the necessary guidance for planning, construction, operation and decommissioning activities and will be updated annually following adaptive management principles.Project Rationale and Context

Zimbabwe's agricultural sector is highly vulnerable to climate change, land degradation and poor water management. The targeted districts rely on ageing irrigation infrastructure, unreliable water supply, and fragile catchments. Yields are low and the schemes have experienced recurring pump failures, water distribution conflicts, and farm level production constraints. The RACP will introduce climate smart infrastructure, modern conveyance systems, energy efficient pumping, improved storage and enhanced governance of water and land resources. These improvements will support over two thousand farmers' directly and more than ten thousand beneficiaries indirectly through strengthened production, market access and resilience.

Policy, Legal and Institutional Alignment

The ESMP aligns with the following national legislation and policies. The Environmental Management Act, Water Act, Forestry Act, Rural District Councils Act, Public Health Act, Labour Act, Hazardous Substances Act, Parks and Wildlife Act and associated statutory instruments.

It also aligns with national strategies including the National Climate Policy, the National Climate Change Response Strategy, the National Biodiversity Strategy and Action Plan, the National Environmental Policy, the National Development Strategy One (NDS1) and the National Agriculture Policy Framework.

At international level, the project aligns with obligations under the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, the Paris Agreement, ILO Conventions and the Sustainable Development Goals.

The project triggers the all AfDB ISS Operational Safeguards and IFAD SECAP Standards, including Standards on Environmental and Social Assessment, Climate Adaptation, Water Resources, Biodiversity Conservation, Pollution Prevention, Labour and Working Conditions, Community Health and Safety, Social Inclusion, Vulnerable Groups, Gender Equality, Cultural Heritage and Stakeholder Engagement.

There is no physical resettlement anticipated. Temporary, land access and livelihood disruptions may occur during trenching and construction and will be managed through negotiated agreements, consistent with OS2 and SECAP on land and asset impacts.

Project Alternatives

A structured assessment of project alternatives was conducted as required by AfDB ISS and IFAD SECAP. These include:

- The No Project alternative indicates continued degradation of irrigation systems, declining yields, deepening poverty and irreversible land degradation.
- Alternative technologies were examined, resulting in the selection of solar powered pumping systems due to their lower operational costs, reduced greenhouse gas emissions and suitability for remote areas.
- Alternate layout designs were assessed to avoid sensitive areas, minimize vegetation clearance, reduce excavation requirements and mitigate erosion.

The mitigation hierarchy was applied from planning through to design and operational phases to ensure that avoidance, minimisation, restoration and offsetting were applied consistently.

Environmental and Social Baseline

The baseline covers climate, hydrology, soils, biodiversity, cultural heritage, demography, socio-economic conditions, gender dynamics, youth participation, health and safety conditions, and security risks. The project area is characterised by pronounced exposure to climate variability, recurrent droughts, declining surface and groundwater reliability, siltation of smallholder dams, degraded riverbanks, and progressive catchment degradation driven by overgrazing, streambank cultivation, and vegetation loss. Livelihoods are dominated by smallholder mixed crop and livestock production systems, with irrigation schemes operating below capacity due to ageing infrastructure and unreliable water supply. Communities have consistently expressed strong support for irrigation rehabilitation, improved water management, catchment restoration, and enhanced economic opportunities linked to value chains and market access.

The project area lies within Midlands Province, centrally located in Zimbabwe and covering approximately 49,166 km². According to the 2022 Population and Housing Census, the province has an estimated population of about 1.7 million people, with the majority residing in rural areas and dependent on agriculture-based livelihoods. Unemployment and underemployment remain significant, particularly among women and youth, reflecting limited formal employment opportunities and high vulnerability to climate and economic shocks. Provincial labour indicators point to structural vulnerability, with women and young people disproportionately affected by limited access to productive assets, finance, and decision-making platforms.

Climatically, Midlands Province spans semi-arid to sub-humid zones, with average annual rainfall typically ranging between 600 and 800 mm but exhibiting high inter-annual variability and increasing frequency of mid-season dry spells. Recent climate trends indicate rising temperatures, delayed onset of rains, and more erratic rainfall distribution, which together heighten drought risk and undermine rain-fed agriculture. These patterns directly contribute to declining water security, reduced crop yields, and increased pressure on irrigation systems and communal water sources.

Soils across much of the project area are predominantly sandy loams to clay loams of moderate to low inherent fertility, with widespread evidence of erosion, compaction, and nutrient depletion. Catchment degradation has resulted in accelerated sediment loads in rivers, dams, and night storage reservoirs, compromising irrigation performance and increasing maintenance

requirements. The province supports a mosaic of natural and modified ecosystems, including miombo and mopane woodlands, riparian corridors, and cultivated landscapes, which provide important biodiversity, ecosystem services, and cultural heritage values that are sensitive to land degradation, hydrological alteration, and unsustainable resource use. These baseline conditions underscore the need for integrated irrigation rehabilitation, catchment management, and climate-resilient livelihood interventions under the project.

Summary of Stakeholder Consultations

Consultations were conducted between August and September 2025 across all seven schemes. They involved farmers, traditional leaders, women and youth groups, district authorities (Kwekwe District Development coordinator, Zibagwe District Council), extension services, EMA, ZINWA, water user associations and private sector representatives. Methods used included public meetings; transect walks, key informant interviews, focus group discussions, Rapid Participatory Appraisal sessions and household level interactions.

Key issues raised across meetings included water distribution conflicts, safety concerns during construction, pump reliability, biodiversity conservation, waste management, youth participation, gender equity, pesticide misuse, climate shocks and the need for transparent grievances processes. The stakeholder input is summarised in Table 1.

Table 1: Stakeholder Input Summary

Location	Dates	Key Issues Raised	Responses / Commitments
Sesombe	Feb–Aug 2025	Concerns about expansion impacts, vandalism, market readiness	Security measures, clear communication on progress
Senkwasi	Multiple meetings	Leakage in irrigation system, market price fluctuations	Repairs to distribution pipes, market interventions
Wozoli	Field meetings	Silted dam, insufficient water availability	Silt removal, additional boreholes, tank improvements
Igogo	Jun–Sept 2025	Tractor insufficiency, sand in pumps	Commitment to procure additional equipment
Milsonia	Apr–Jul 2025	Delays in project commencement, equipment inadequacies	Assurance of timely project initiation and support

Summary of Major Positive Impacts

The project is expected to deliver the following positive impacts:

- Improved water security at all seven schemes through modern conveyance, lined canals and solar powered pumping.
- Increased yields from average levels of one tonne per hectare to between three and five tonnes per hectare depending on crop type.
- Improved incomes for more than two thousand farmers through enhanced supply reliability and reduced input losses.
- Strengthened resilience to climate-induced droughts, storms and heat stress through improved storage, early warning systems and soil moisture management.
- Reduced land degradation and improved biodiversity through restoration of riparian zones, buffer strips and controlled access.
- Improved health and safety standards for workers and communities.
- Enhanced gender equality and youth inclusion through targeted training and institutional support.

Summary of Adverse Environmental and Social Impacts

The assessment identified several negative impacts that require mitigation, which include the following:

- Vegetation loss estimated at four to seven hectares during trenching and foundation works.
- Disturbance of soil structure and increased erosion risk in high slope areas with potential soil loss of twelve to eighteen tonnes per hectare without erosion control.
- Risks of injury during excavation and installation activities.
- Possible contamination of water bodies through poor handling of oils, fuels and pesticides.
- Potential rise in conflicts if water governance is not adequately strengthened.

The mentioned impacts are reversible and manageable through implementation of agreed mitigation measures and compliance monitoring.

Summary of Impacts and Mitigation Measures

Table 2: Summary of Positive and Negative Impacts with Key Measures

Impact Category	**Positive or Negative**	**Key ESMP Measures**
Water Resources	Positive	Water permits, flow meters, distribution scheduling
Soil Stability	Negative	Contour stabilisation, drainage control, revegetation
Biodiversity	Negative	Avoidance of sensitive patches, replanting programmes
Community Health and Safety	Negative	Traffic controls, PPE, camp sanitation, safety supervision
Gender and Inclusion	Positive	Women leadership quotas, youth enterprises support
Climate Resilience	Positive	Solar pumping, CSA training, early warning systems
Pollution and Waste	Negative	Waste segregation, controlled disposal, spill response plans
Livelihoods	Positive	Increased yields, local employment, input supply networks

Cost of Mitigation Measures

The ESMP includes a detailed cost matrix presented in the following table on ESMP cost categories and estimates as shown in Table 3.

Table 3: ESMP Cost Categories and Estimates

Category	**Cost Estimate (USD)**
Environmental mitigation	41,250.00
Social inclusion and safeguards	23,750.00
Climate adaptation and IPM	12,000.00
Grievance management and awareness	6,250.00
Health and safety systems	14,000.00
Monitoring and independent audits	27,500.00
Capacity building for farmers, IMCs, and district teams	10,500.00
Total ESMP Cost	**135,250.00**

These costs support monthly site inspections and quarterly joint reviews involving EMA, ZINWA, AGRITEX, RDCs and the PIU.

Table 4: ESMP Summary Matrix

Code	Impacts/Risks	Mitigation Measure	Deadline	Cost (USD)	KPI	Implementation Responsibility	Monitoring
ES- 1	Water Contamination Risk/ Health Impact	Construction of communal ablution blocks and potable water points	Q3 2026	75,000	100% completion of WASH facilities.	Contractor / PIU	EMA/AfDB/IFAD
ES-2	Social Inequity Risk (Gender/Youth)	Establish gender- and youth-sensitive stakeholder committees.	Q2 2026		Women >40%, Youth >25 % involved.	PIU/RDCs	AfDB/IFAD
ES-3	Soil Erosion/Siltation Impact	Maintenance of buffer zones, silt traps	Q4 2026	45 000	100 % of pump houses secured.	Contractor /PIU	PIU
ES - 4	Asset Loss Risk	Repair /erection of security fencing and lockable palisade cages.	Q4 2026	50 000	100% of pump houses secured	Contractor / PIU	

Support Management Plans

The Stakeholder Engagement Plan ensures continuous, transparent and inclusive communication with farmers, communities and institutions throughout the RACP design, construction and operational phases. It provides structured processes for participation, information disclosure and targeted engagement of women, youth and vulnerable groups, ensuring that community voices shape project decisions and monitoring. The SEP is fully integrated with the Grievance Redress Mechanism, which serves as the formal channel through which stakeholders can raise concerns, seek clarification and receive timely, fair resolution of project-related issues.

The (**Grievance Redress Mechanism**) GRM is culturally appropriate, gender responsive and accessible. It includes community committees, PIU oversight and escalation channels to district and national structures. Complaints may be made verbally or in writing and all grievances will be resolved within agreed timelines. Awareness will be carried out during all project phases and the GRM budget is included in the ESMP.

The project will implement a safeguards-compliant Pest Management Plan (PMP) that prioritises prevention, ecological control and reduced reliance on chemical pesticides in all irrigation schemes and Village Business Units. The PMP provides clear guidance on pest surveillance, safe pesticide handling, storage, disposal and the exclusion of Highly Hazardous Pesticides in line with AfDB OS3, IFAD SECAP and national regulations. Its implementation strengthens environmental protection, reduces health risks and ensures that pest management supports climate-resilient and sustainable agricultural production across the target districts.

Conclusion

The ESMP demonstrates that the RACP will deliver substantial socio economic and environmental benefits while managing risks effectively. The project is fully aligned with Zimbabwean regulations and the ten AfDB Operational Safeguards as well as the thirteen IFAD SECAP Standards. With a robust monitoring framework, strong institutional arrangements and clear implementation responsibilities, the project is ready for financing and implementation and presents a replicable model for climate resilient irrigation development

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List of Acronyms

ABBREVIATION	FULL TEXT
AfDB ISS	African Development Bank Integrated Safeguards System
AGRITEX	Agricultural Technical and Extension Services
CSA	Climate-Smart Agriculture
DRR	Disaster Risk Reduction
EMA	Environmental Management Agency (Zimbabwe)
ESMP	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FPIC	Free, Prior and Informed Consent
GBV	Gender-Based Violence
GRM	Grievance Redress Mechanism
IFAD SECAP / ESS	International Fund for Agricultural Development Social, Environmental and Climate Assessment Procedures / Environmental and Social Standards
IMC / WUA	Irrigation Management Committee / Water User Association
IPMP / IPM	Integrated Pest Management Plan / Integrated Pest Management
LMP	Labour Management Plan
MSD	Meteorological Services Department (Zimbabwe)
NDC	Nationally Determined Contribution (Paris Agreement)
NEC	National Employment Council (Agricultural Sector)
NSSA	National Social Security Authority
NSDs	Night Storage Dams
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
RACP	Resilience Agriculture Cluster Project
RDC	Rural District Council
RPA	Rapid Participatory Appraisal
SACP	Smallholder Agriculture Cluster Project
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SI	Statutory Instrument
VBUs	Village Business Units
WEEE	Waste Electrical and Electronic Equipment
ZINWA	Zimbabwe National Water Authority

1.0 INTRODUCTION

1.1 Proponent Details

The Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) on behalf of the Government of Zimbabwe spearhead the Resilient Agriculture Cluster Project (RACP). Established under the Agricultural Sector Coordination Act and related statutes, the Ministry holds the national mandate to formulate, execute, and oversee agricultural policies and programmes. As a line ministry operating under the Civil Service Commission, its statutory functions and responsibilities are formally enshrined in the Government Gazette.

RACP is financed through a blended funding model comprising contributions from the African Development Bank (AfDB) via its Climate Action Window (CAW), the International Fund for Agricultural Development (IFAD), and counterpart funding from the Government of Zimbabwe. The initiative is part of the Ministry's broader strategy to promote climate-resilient agricultural transformation and rural development, building on insights and experiences gained from the Smallholder Agriculture Cluster Project (SACP).

A dedicated Project Implementation Unit (PIU) housed within the Department of Irrigation and Water Development manages the implementation of RACP. The PIU oversees planning, procurement, contract administration, compliance with environmental and social safeguards, and overall project monitoring. It works in close coordination with provincial and district agricultural extension offices, catchment councils under the Zimbabwe National Water Authority (ZINWA), and Rural District Councils (RDCs), including those in Kwekwe and Chirumhanzu districts of the Midlands Province.

In addition to its internal structures, the Ministry will collaborate with local water user associations, farmer groups, and private-sector stakeholders to deliver targeted interventions such as irrigation scheme rehabilitation, market infrastructure development, catchment restoration, and climate information services. This participatory approach ensures that RACP activities are community-driven and aligned with local priorities, while adhering to AfDB and IFAD environmental and social safeguard standards. The project is embedded within the Ministry's institutional framework and integrated with national and district-level governance systems, thereby reinforcing accountability, enhancing sustainability, and promoting inclusive stakeholder engagement across the 18 target districts situated within the Gwayi, Sanyati, Manyame, and Mazowe catchments.

1.2 Background

Agriculture remains the cornerstone of Zimbabwe's economy, underpinning livelihoods, employment, food security, and rural development. It provides income and sustenance for over 60 percent of the population, directly supporting national development goals and contributing significantly to GDP. However, the sector faces increasing pressure from a convergence of challenges, including climate variability and change, recurrent droughts, erratic rainfall patterns, declining soil fertility, and land degradation. Over the past two decades, these pressures, coupled with ageing infrastructure, poorly performing irrigation systems, and weak market integration, have eroded productivity, exacerbated rural poverty, and deepened food insecurity.

In response, the Government of Zimbabwe, through the MLAFWRD, has collaborated with the AfDB and the IFAD to design and implement the RACP. Building on lessons from the SACP, which introduced climate-smart agriculture and strengthened market linkages, the RACP takes a more comprehensive and integrated model. It scales up investments in climate-resilient infrastructure, natural resource management, value chain development, and inclusive governance to transform smallholder agriculture into a more productive, adaptive, and market-oriented sector.

In Midlands Province, the project targets climate-vulnerable but agriculturally promising districts of Kwekwe and Chirumanzi. These areas possess significant potential for horticulture, small grains, and livestock production but continue to face persistent challenges such as inadequate irrigation infrastructure, insufficient water storage capacity, poor post-harvest facilities, and limited access to structured markets. By focusing interventions in these districts, the RACP aims to unlock latent agricultural potential while building resilience against climate-induced risks and shocks.

The project's interventions are designed to address critical constraints and create enabling conditions for sustainable agricultural growth and climate resilience. Specifically, the RACP will:

- Improve water availability and irrigation performance through the rehabilitation of schemes, development of water harvesting infrastructure, and deployment of solar-powered pumping technologies.

- Strengthen agricultural value chains by upgrading feeder roads, establishing market infrastructure, and improving post-harvest handling, cold storage, and agro-processing facilities.
- Promote catchment restoration and ecosystem services through afforestation, gully reclamation, and soil conservation in degraded communal landscapes.
- Enhance climate risk preparedness through the establishment of early warning systems, promotion of weather-index insurance, and dissemination of timely weather information to farmers.
- Support the inclusion and empowerment of women, youth, and other vulnerable groups through targeted training, governance participation, and enterprise development initiatives.

The Ministry's Project Implementation Unit (PIU) leads implementation in the Midlands, working closely with provincial and district-level agricultural extension teams. Collaboration with catchment councils, Rural District Councils (RDCs), and farmer-based organisations ensures local ownership and integration into broader development plans. Partnerships with NGOs, development partners, and private sector actors provide complementary technical expertise, financing, and value chain support, particularly in promoting climate-smart technologies and market development.

The RACP is fully aligned with Zimbabwe's National Development Strategy 1 (NDS1), the National Climate Policy, and the country's international commitments under the Paris Agreement and the Sustainable Development Goals (SDGs) particularly SDG 2 (Zero Hunger), SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), and SDG 15 (Life on Land). By prioritising climate-resilient agriculture, the project contributes directly to national efforts to achieve Vision 2030, which envisions Zimbabwe as an upper-middle-income economy by the end of the decade.

The intervention directly addresses recurrent climate shocks, degraded catchments, and deteriorating irrigation infrastructure across the target districts. Planned activities include rehabilitation of irrigation schemes, establishment of solar-powered Village Business Units (VBUs), and installation of household water-harvesting systems. These will be complemented by comprehensive Environmental and Social Management Plans (ESMPs) aimed at restoring

ecosystems, stabilising soils, and enhancing productivity in compliance with Section 97 of the Environmental Management Act [Chapter 20:27].

To ensure high standards of environmental stewardship, occupational safety, and social sustainability, the Scientific and Industrial Research and Development Centre (SIRDC), through its Environmental Science Institute (ESI), has been commissioned to undertake the ESMP preparation process. This exercise will guide the implementation of environmentally sound and socially inclusive practices, ensuring that the RACP achieves its objectives while safeguarding natural resources, community wellbeing, and future agricultural productivity.

1.3 Purpose of the Environmental and Social Management Plan (ESMP)

The Environmental and Social Management Plan (ESMP) provides the overarching framework for identifying, predicting and evaluating the potential environmental and social consequences of the RACP across its planning, construction, operation and decommissioning phases. Its principal purpose is to ensure that the project is designed and implemented in a manner that protects environmental integrity, upholds social equity and complies with both national legislation and international safeguard standards.

The ESMP establishes the baseline conditions of the 18 target districts, including those in Midlands, analyses likely impacts, and prescribes avoidance, minimisation, mitigation and enhancement measures to be integrated into project planning. It defines clear responsibilities, performance criteria and monitoring arrangements for the Project Implementation Unit (PIU), contractors and local stakeholders, embedding accountability and sustainability into project execution.

In accordance with the Environmental Management Act [Chapter 20:27] which is the statutory basis for requiring Environmental Impact Assessments (EIAs) and audits for development projects and specific national legislation such as the Forest Act [Chapter 19:05] and the Parks and Wildlife Act [Chapter 20:14] (the core of ecosystem protection legislation), the ESMP ensures both statutory and development-partner compliance. It further adheres to the requirements of the African Development Bank's Integrated Safeguards System (2023) and IFAD's Social, Environmental and Climate Assessment Procedures (2021). The ESMP translates these legal and policy requirements into concrete mitigation measures, clear institutional responsibilities, monitoring indicators, and capacity-building provisions that are specifically tailored to the biophysical, socio-economic, and cultural context of the targeted catchments, with a focused emphasis on the specific conditions found in Midlands.

Beyond compliance, the ESMP serves a strategic role in mainstreaming crosscutting priorities such as gender equality, youth participation, labour rights, occupational health and safety, integrated pest management and climate risk adaptation into the management of RACP. By doing so, it minimises risks, enhances positive impacts and maximises long-term benefits for communities, ecosystems and the national economy.

Ultimately, the ESMP operationalises the project's commitment to sustainability by ensuring that all activities are planned, implemented and monitored in ways that strengthen climate resilience, protect community well-being and support Zimbabwe's transition towards a more inclusive and climate-resilient agricultural sector, particularly in Midlands.

1.4 Geographic Scope

The Resilience Agriculture Cluster Project (RACP) will be implemented across the Midlands, covering 2 climate-vulnerable districts distributed across the Kwekwe (Sanyati catchment) and Chirumhanzu (see Figure 1).

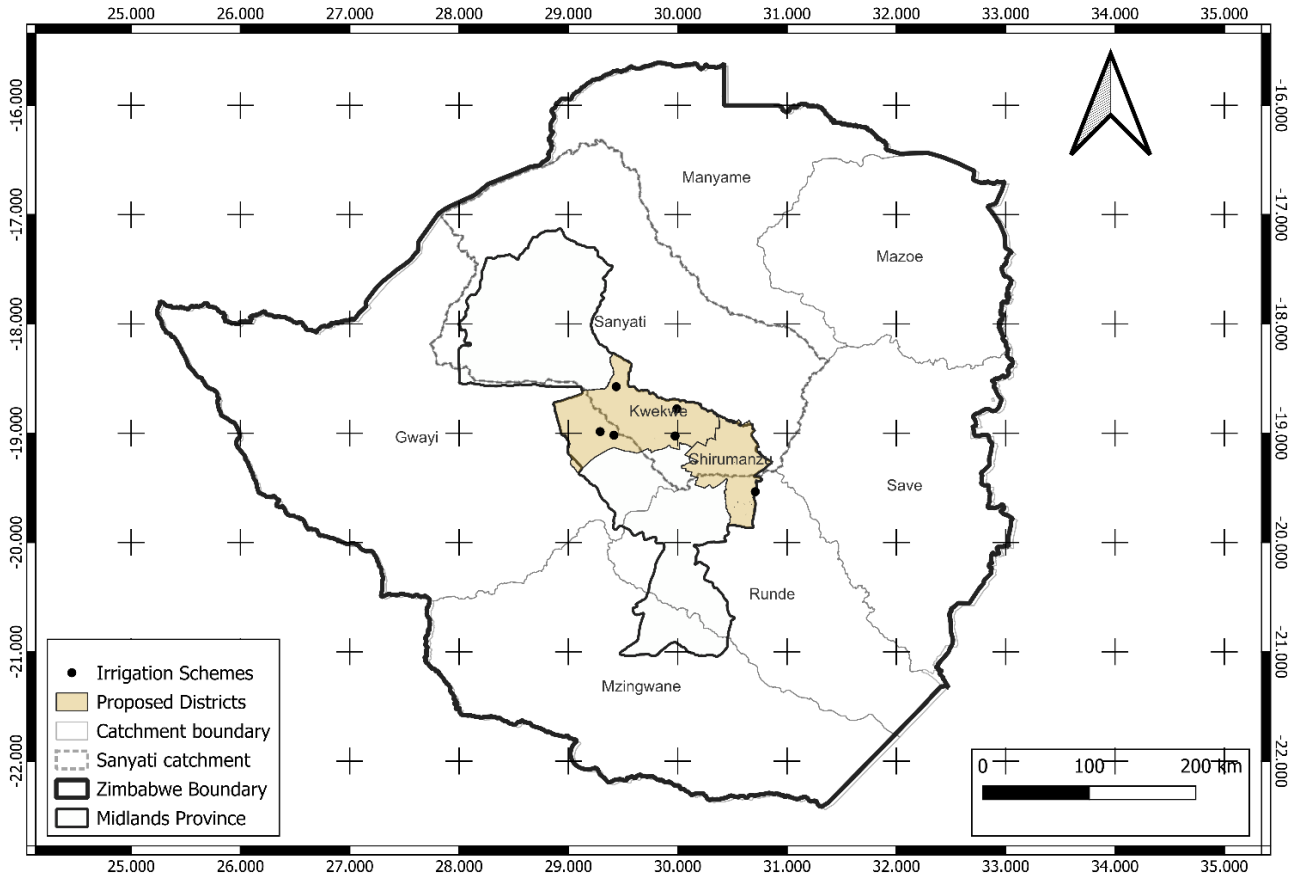


Figure 1: Location Map

The selection of target districts, including Kwekwe and Chirumhanzu in the Midlands Province, was informed by their pronounced vulnerability to climate-induced hazards, heavy reliance on rain-fed agriculture, and the presence of irrigation and market infrastructure that, while currently underutilised, offers significant potential for revitalisation. These conditions present a strategic opportunity for climate-resilient agricultural interventions that can unlock productivity and enhance rural livelihoods. A list of the proposed irrigation schemes earmarked for resuscitation is given in Table 5

These two districts of Midlands Province collectively have a population of about 370,000 people, the majority of whom are rural smallholders whose livelihoods depend on mixed crop and livestock production systems. The project area falls within varied biophysical and agro-ecological conditions, reflecting differences in climate, soil types, hydrology, vegetation, and land use potential. The Sebakwe, Gweru, and Lower Vungu catchments span a gradient of ecological settings, from semi-arid lowlands and gently undulating plateaus to riverine landscapes and areas with established irrigation infrastructure.

Table 5: Proposed Irrigation Schemes

Province	District	Irrigation Scheme (from SACP RPA)
Midlands	Kwekwe	1. Sessombe Irrigation Scheme; 2. Senkwasi Irrigation Scheme; 3. Wozoli Irrigation Scheme 4. Igogo Irrigation Scheme 5. Milsonia Irrigation Scheme

1.5 Project Category

RACP targeting Kwekwe and Chirumhanzu districts in Midlands Province has been classified as a Schedule 2 project under Zimbabwe's Environmental Management Act. This corresponds to Category 2 under AfDB's Environmental and Social Assessment Procedures (ESAP) and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). This classification reflects that the project is expected to generate site-specific, largely reversible environmental and social impacts of moderate significance, which can be effectively managed through appropriate mitigation measures and adherence to international standards.

The categorisation follows an initial environmental and social screening, conducted to assess the nature, scale, sensitivity, and potential risks of proposed activities in the two districts. This

process evaluated project components against national regulatory frameworks and AfDB and IFAD safeguard criteria, including the type and extent of physical interventions, proximity to sensitive ecosystems, potential impacts on communities, biodiversity, and cultural heritage, as well as the anticipated magnitude and duration of risks. The screening confirmed that a full Environmental and Social Impact Assessment (ESIA) is not required; instead, an Environmental and Social Management Plan (ESMP) will be prepared.

The ESMP serves as the core instrument for risk management and compliance, detailing mitigation, monitoring, and adaptive management measures across all phases of the project. It incorporates key safeguard themes such as biodiversity conservation, climate resilience, pollution control, occupational health and safety (OHS), labour conditions, community health and safety, and stakeholder engagement. Once finalised, the ESMP will be reviewed and validated by AfDB and IFAD to ensure alignment with international standards before submission to EMA for regulatory approval.

1.6 Project Justification

The justification for implementing the RACP in the Midlands Province is rooted in the urgent need to address interconnected challenges affecting agricultural productivity, rural livelihoods, natural resource integrity, and climate resilience. Agriculture remains the cornerstone of the provincial and national economy, supporting over 60 percent of the population and contributing significantly to food security, employment, and income generation. However, its potential is increasingly undermined by structural, environmental, and socio-economic constraints that require targeted and integrated interventions.

The Midlands Province is characterised by a predominantly rural population reliant on smallholder mixed farming systems, which are highly vulnerable to climate variability and change. Increasing temperatures, shifting rainfall patterns, recurrent droughts, and occasional flooding events have reduced agricultural productivity, increased crop and livestock losses, and heightened food insecurity. Rain-fed production remains the primary mode of agriculture for most households, yet it is becoming increasingly unreliable due to erratic rainfall distribution and shortened growing seasons. The result has been declining yields, lower household incomes, and growing dependence on external food assistance in some areas.

Compounding these climatic pressures are significant infrastructure and institutional gaps. Many of the province's irrigation schemes are dilapidated, underutilised, or operating far below capacity due to ageing equipment, inadequate maintenance, and siltation of canals and storage

structures. Limited access to reliable water sources constrains cropping intensity and diversification, while poor post-harvest handling facilities and weak market linkages prevent farmers from realising the full value of their produce. Feeder roads in many areas are in disrepair, impeding market access and increasing transaction costs.

The natural resource base that underpins agricultural productivity is also under stress. Land degradation, deforestation, erosion, and declining soil fertility have reduced the productive capacity of farmland. Catchment degradation and poor watershed management further exacerbate water scarcity and sedimentation, threatening the sustainability of irrigation investments and downstream ecosystems. These environmental pressures are closely linked to poverty, as households with limited livelihood options often resort to unsustainable resource use to meet their immediate needs.

Social and institutional challenges compound these problems. Women, youth, and other vulnerable groups face systemic barriers to accessing land, water, finance, and markets, which limit their participation in productive agriculture. Weak governance structures and inadequate capacity among local institutions hinder effective water management, conflict resolution, and enforcement of environmental regulations. Without targeted support, these factors will continue to limit agricultural transformation and deepen existing inequalities.

The RACP directly responds to these challenges by promoting climate-resilient, inclusive, and market-oriented agricultural development. Through the rehabilitation and modernisation of irrigation infrastructure, the project will improve water availability, increase cropping intensity, and enhance productivity. Investments in water harvesting, solar-powered pumping systems and efficient water use technologies will reduce vulnerability to drought and enhance adaptive capacity. Catchment restoration and ecosystem management interventions will address land degradation and improve the sustainability of water resources.

Furthermore, the project's focus on value chain development, market access, and infrastructure upgrades will enable smallholders to transition from subsistence to commercial production, improving household incomes and stimulating local economic growth. By prioritising the inclusion of women, youth, and vulnerable groups, the project will also contribute to social equity and empowerment. Capacity building for institutions and farmer organisations will strengthen governance, improve resource management, and ensure long-term sustainability of interventions.

In this context, the RACP is not just a response to current challenges but also a strategic investment in the future of Midlands Province. It will unlock the agricultural potential of smallholders, reduce poverty and inequality, strengthen climate resilience, and safeguard the natural resource base on which rural livelihoods depend. The project is therefore justified as a critical instrument for achieving Zimbabwe's national development goals, advancing food security, supporting climate adaptation, and contributing to the vision of a prosperous, inclusive, and sustainable rural economy.

2.0 PROJECT DESCRIPTION

The RACP in the Midlands Province is a climate-resilient agricultural initiative designed to strengthen smallholder participation in market-oriented, climate-smart, and nutrition-sensitive value chains. It builds on the achievements and lessons of the SACP and expands its scope by investing in infrastructure, governance systems, and institutional capacities that address climate vulnerability, food insecurity, and weak market integration.

The project aims to increase household incomes, improve nutrition, and support sustainable livelihoods by transforming smallholder agriculture into a commercially viable and environmentally sustainable sector. It is financed through a grant from the AfDB's CAW and other partners, contributing to a total project cost of USD 77.2 million.

In the Midlands Province, RACP targets key districts such as Kwekwe and Chirumhanzu, where smallholder farmers depend heavily on mixed crop-livestock systems but face increasing risks from climate variability, degraded natural resources, inadequate infrastructure, and limited value chain linkages. By focusing on these areas, the project will directly address systemic constraints while building adaptive capacity, improving productivity, and strengthening market competitiveness.

The project is structured around three main components:

1. Inclusive climate- and nutrition-sensitive value chain development. This component supports the formation and strengthening of APGs and agribusiness partnerships, including targeted matching grants and concessional financing for investments in value chains such as sorghum, millet, sunflower, sesame, citrus, poultry, beef, and piggery. Support will include business training, financial literacy, improved access to inputs and climate-smart technologies, and grants for agro-processing and market expansion.

2. Climate proofing of infrastructure for productive and domestic use. This focuses on rehabilitating and expanding irrigation schemes, establishing multipurpose water points, upgrading feeder roads, and constructing post-harvest and market infrastructure. Examples include canal lining, pump replacement, installation of solar-powered water supply systems, water harvesting structures, livestock watering points, and nutrition corners.

3. Strengthened institutional capacity for climate governance and disaster risk finance. This involves supporting policy development, improving financial mechanisms for

climate resilience, and enhancing institutional coordination. Activities include developing climate finance strategies, training government and civil society actors on risk planning, and establishing platforms for coordinated adaptation responses.

2.1 PROJECT ACTIVITIES

2.1.1 Irrigation and Water Systems

In the Midlands Province, RACP will rehabilitate and modernise irrigation infrastructure in schemes such as Igogo, Wozoli, Milsonia, Senkwasi, and Sessombe, covering an estimated 236 hectares. The hectarage of the irrigation schemes is broken down in Table 6 and is likely to increase after the validation of irrigation schemes for Chirumanzi by the community and MLAFWRD. These interventions will include replacing obsolete pumps, rehabilitating canals, and upgrading on-farm distribution systems to improve water use efficiency and reduce losses. The introduction of solar-powered VBUs and SBUs will decentralise energy and water provision for irrigation, agro-processing, and small-scale enterprises.

At the household and community level, the project will enhance water security through rainwater harvesting systems, rooftop collection infrastructure, infiltration pits, and road runoff harvesting ponds. These measures will improve water availability, reduce soil erosion, and strengthen resilience in semi-arid areas.

Table 6: Hectarage Covered by Each Targeted Irrigation Scheme

Irrigation Scheme	**District**	**Hectarage**
Igogo	Kwekwe	40 ha
Wozoli	Kwekwe	35 ha
Milsonia	Kwekwe	50 ha
Senkwasi	Kwekwe	45 ha
Sessombe	Kwekwe	36 ha
Total		**165 ha**

Facilities at the Igogo Irrigation Schemes

The Igogo Irrigation Scheme in Kwekwe District features essential infrastructure for agricultural production, including two main pumping units, though both are currently non-functional due to breakdowns. Water is sourced from the Mbembeswane River, using two pumping units installed at the main pumping station at the Igogo irrigation scheme. There is one duty and one standby pump and it provides adequate flows, however, sedimentation issues affect it. The scheme utilizes a hose reel system covering 64 ha and a semi-portable sprinkler

system for an additional 20 ha, though maintenance challenges affect their efficiency. There is a 250mm uPVC pipeline for water conveyance, but minor leakages need addressing. Sanitation facilities are insufficient, with only two Blair toilets available for the entire community, while storage and fencing are also lacking, exposing crops to livestock. Access roads require improvement to facilitate transport, and there are no drainage systems to manage storm runoff effectively. Overall, while the Igogo Scheme has critical facilities in place, many require rehabilitation and enhancement to improve functionality and support the farming community.

The irrigation system at Igogo uses electricity from the ZESA grid supply and is connected to a 315KVa transformer. The 315KVa transformer provides power to the pumping units, and there are cable connections in place. The irrigation scheme is located at grid reference 18^{0}02’39.12” S and 31^{0}52’22.67” E. There is a need to install palisade cages at both transformers to protect them from vandalism. There are two pumping units installed at the main pumping station at the Igogo irrigation scheme; both pumps are broken down. Some of the facilities are shown in Plate 1

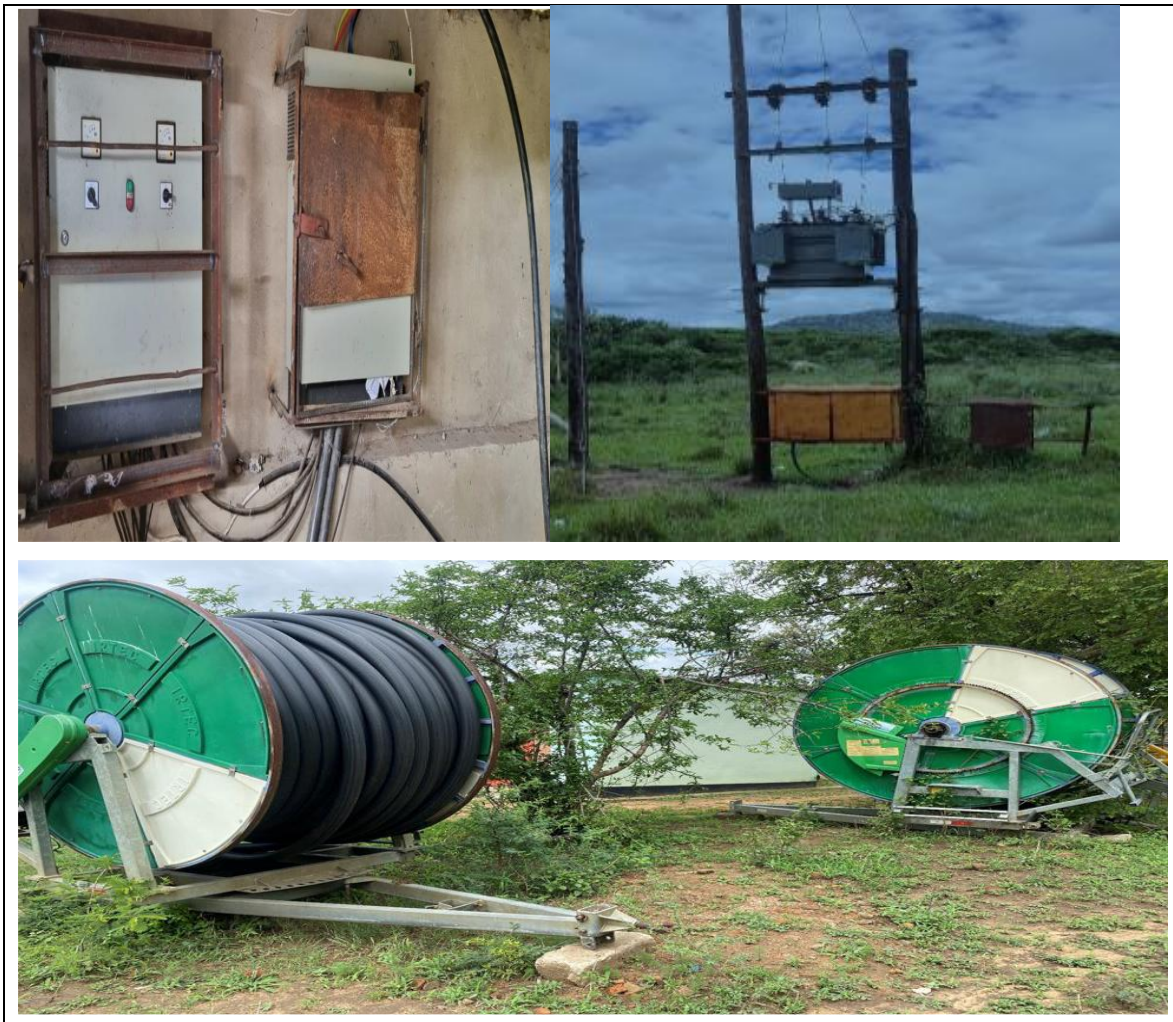


Plate 1: Control Box. Transformer Pump Station at Igogo Irrigation Scheme and dysfunctional hose reels

Facilities at the Wozoli Irrigation Scheme

The scheme comprises a mixed irrigation system that includes both surface and drag hose irrigation methods, covering a total area of 16 hectares. Water is sourced from the Gweru River, approximately 4 km away, but the scheme faces challenges with aging infrastructure, including two concrete tanks that have broken down, leading to direct water pumping issues. Wozoli's surface system abstracts water from a weir on the Gweru River approximately 4 km from the scheme, under ZINWA management, while a separate drag-hose component uses four high-yielding solar-mechanised boreholes within the scheme. The river abstraction point is equipped with a 15 kW duty pump and a standby pump without a motor, delivering water via a 160 mm PVC pipeline of about 3.8 km directly into the lined conveyance canal. The drag-hose system is supplied by two one Hp Forge DC solar submersible pumps, each connected through an intelligent inverter to a 1.1 kW solar array built from three 365 W PV modules, lifting water into four 5 m^3 elevated plastic tanks that feed the standpipes. There is no grid transformer at

the headworks, as the scheme's powered components are split between the grid-connected 15 kW river pump and the stand-alone solar pumping units.

The plans for these schemes propose replacing pumps, upgrading canal networks, realigning hydrants, and installing perimeter fencing to protect cultivated plots from livestock intrusion. Irrigation is facilitated through a network of canals and hoses, although there are concerns about water distribution efficiency due to leaks and inadequate infrastructure. The scheme has minimal access to sanitation facilities, with only a few Blair toilets currently available, highlighting the need for improved hygiene infrastructure.

Additionally, the site lacks proper storage facilities for agricultural inputs, which are exposed to environmental elements, diminishing their quality. Accessibility is also a concern, as the infield roads are inadequate, complicating transportation within the scheme. Furthermore, there is no perimeter fencing, which poses risks of livestock entering the fields.

The site designs recommend improved headworks, non-return valves, and drainage systems, along with centre pivot technology to expand irrigable areas while reducing water losses.

Inverter System, Photovoltaic Modules

Elevated Tanks at Wozoli Irrigation Scheme.

Main Conveyance System at Wozoli irrigation scheme

Direct Pumping into Canal and Breached Concrete Tank

Plate 2: Facilities at the Wozoli Irrigation Scheme

Facilities at the Sessombi Irrigation Scheme

The scheme encompasses a potential irrigable area of 65 hectares, with a history of using a portable sprinkler system. Currently, the system is largely non-functional due to infrastructure issues and an ineffective management structure; it has not been actively cultivated since 1985.

Water is supplied from four boreholes, with one borehole yielding a sufficient flow rate during capacity testing, but the other three are clogged and inoperable. The irrigation infrastructure includes an inadequate Night Storage Dam (NSD) that requires rehabilitation, as well as a network of conveyance pipelines, which have suffered from damage and vandalism. Sessombi is a groundwater-based scheme that draws its irrigation supply from boreholes; one main borehole, 38 m deep with 160 mm casing, was capacity-tested and yielded about 16.5–17 m^3/hr during the test and is estimated to deliver at least 35 m^3/hr, adequate for about 12 ha under modern water-saving systems.

Historically the scheme used Mono pumps on these boreholes driven by Peter Lister TS3 diesel engines, feeding an old elevated concrete tank, but all four boreholes have been stripped of pumping equipment and the main borehole is currently unequipped. A high-tension line still reaches the site, but there is no functioning transformer or electrical pump set in place, so the scheme effectively has no operational power or pumping units at present.

The scheme lacks proper ablution facilities, being limited to basic toilets, which are insufficient for the number of beneficiaries. Additionally, there are no storage units for agricultural inputs, risking the quality of seeds and fertilizers. Accessibility to the irrigation fields is hindered by the absence of proper roads and drains, affecting transportation and contributing to waterlogging issues in certain areas.

Furthermore, the scheme does not have a perimeter fence, leaving crops vulnerable to livestock intrusion. While the Sessombi Scheme has potential for revitalization, significant improvements to its facilities particularly in water infrastructure, sanitation, and transport are necessary to enhance its functionality and productivity for the farming community.

Sessombe and other proposed schemes are smaller in scale but face significant operational constraints, including insufficient water storage capacity, blocked canals, and weak pressure. Here, the proposed layouts focus on pump replacement, rehabilitation of conveyance lines, uniform sprinkler systems, and installation of water harvesting structures to enhance water availability and distribution.

An HT line and an old concrete tank on distant background.	*Remnants of diesel-powered pumping unit, borehole and old concrete tank*
The main borehole and Mono pump	*Old concrete tank*

Plate 3: Facilities at the Sessombe Irrigation Scheme

Facilities at the Milsonia Irrigation Scheme

The Milsonia Irrigation Scheme is currently dysfunctional, with its last operational period ending around 2000, which resulted in the subsequent vandalism and theft of all functional infrastructure. Despite this, the scheme benefits from a reliable water source at the Muponisi Dam and access to a nearby ZESA grid line. The critical state of the scheme necessitates a complete redevelopment. Milsonia abstracts water from Muponisi Dam, a former commercial farm dam built on a perennial stream draining to the Munyati River and originally sized to irrigate about 80 ha plus domestic and recreational demands; current empirical estimates

indicate capacity sufficient for about 20 ha of overhead sprinkler irrigation, with the dam about 80% full at the time of the RPA. The previous owner, leaving two suction points on an 8" AC suction line (high- and low-water intakes) but no installed pumps, removed original pumping plant. Water used to be conveyed through a 200 mm AC pipeline over roughly 700 m into a night-storage dam at the field edge, and the previous system could irrigate about 10 ha at a time with a semi-portable sprinkler layout. There is an existing HT line, but the transformer was removed by ZESA and a new transformer connection is estimated at about USD 9 000, so no rated transformer is currently in place.

The core of the proposed rehabilitation focuses on upgrading the water delivery system. Historically, the scheme utilized a less efficient surface irrigation system (canals for flood or furrow irrigation). Today, this original infield infrastructure, which included the canals, is damaged and considered inappropriate for efficient water use. The proposed plan, therefore, is to entirely replace this system and develop a 30-hectare overhead sprinkler irrigation system. Furthermore, the farmers have requested the installation of a new transformer to ensure a steady power supply for the new system and the provision of a tractor for general scheme operations.

Beyond the irrigation system, several auxiliary facilities require attention. While access roads and drainage systems once existed, they are no longer in good condition and require rehabilitation. Crucially, the scheme currently lacks both sanitation facilities and potable water (WASH); the surrounding community relies on a school borehole and raw water from the Muponisi Dam. For security, a perimeter veld fence is necessary, as the current area has no fencing to protect the crops from small and large livestock. The scheme is located near a main road; a significant Last-Mile Feeder Road Challenge exists at the waterway and stream crossing points. During the rainy season, these crossings become dangerous, restricting vehicle movement and putting people at risk. Some of the facilities are shown in Plate 4

School children walking in the NSD

Plate 4: Facilities at the Milsonia Irrigation Scheme

Facilities at the Senkwasi Irrigation Scheme

The Senkwasi Irrigation Scheme is currently operational but relies on a combination of existing and outdated infrastructure, posing significant challenges to its efficiency and sustainability. The scheme abstracts water from the Senkwasi River and conveys it to an in-field Night Storage Dam (NSD) using a pumping unit. However, this water supply system is compromised because the NSD is leaking, leading to inconsistent water availability and forced queues for irrigation. Additionally, the pipe used to distribute water from the NSD to the plots is also leaking, further wasting water and reducing system performance. The primary method of irrigation used infield is the outdated surface (furrow irrigation) system.

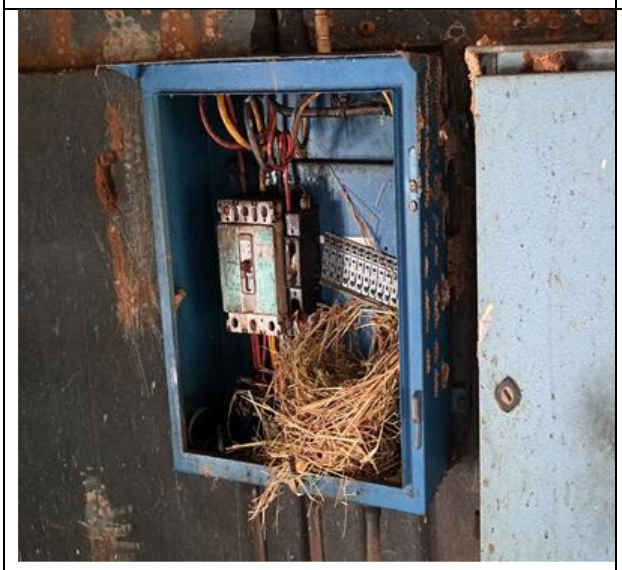
Senkwasi draws its irrigation water from Senkwasi Dam, located about 1 km from the scheme and managed by ZINWA, although dam capacity data were not available at the time of the RPA. The headworks comprise two electric pumping units and one Lister TS3 diesel pump, with the main duty pump driven by a 37 kW motor that discharges into a 200 mm AC pipeline. The 200 mm AC conveyance line is about 1 200 m long from pump house to night-storage dam, from which water is released into a 250 mm trapezoidal canal network feeding furrow irrigation. The pumping station is powered from the grid through a 50-kVA transformer, though one switchboard is dysfunctional and causes frequent tripping, so the electrical system needs upgrading.

Farmers and assessors agree that this system is no longer suitable given climate change and the need for water efficiency, and they have noted that the current irrigation is not properly functional. To address this, a complete transformation is recommended: converting the entire scheme from the surface system to a high water-saving technology, such as a sprinkler or drip irrigation system. This overhaul also includes equipping the scheme with a new duty pump plus a standby pump, and critically, repairing the leaking NSD. Farmers have expressed a preference for solar energy to power the pumping units to reduce electrical costs and ensure a more reliable water supply.

In terms of auxiliary facilities, the scheme is severely lacking. Like many of the schemes, Senkwasi lacks both sanitation facilities and potable water (WASH). Furthermore, there is no perimeter fence to secure the agricultural area, and the feeder road is in a bad state, which hinders market access by discouraging buyers from collecting produce. The rehabilitation plan includes provisions for the installation of a perimeter fence and necessary road repairs. Some of the facilities are shown in Plate 5

Senkwasi Dam

Pump house



Switch gear and transformer at Pumping Station

Transformer

Plate 5: Facilities at the Senkwasi Irrigation Scheme

2.1.2 Market and Post-Harvest Infrastructure

Market and post-harvest infrastructure under the RACP in the Midlands Province is intended to address critical bottlenecks that limit smallholder participation in formal and semi-formal agricultural markets. These bottlenecks include inadequate aggregation capacity, high post-harvest losses, limited storage and processing facilities, weak market connectivity, and unreliable logistics between production areas and buyers. The project will prioritise the rehabilitation and upgrading of feeder roads linking irrigation schemes, aggregation points,

Village Business Units (VBUs), and nearby trading centres. Improved road access will facilitate timely collection and delivery of produce, reduce transport losses, and improve reliability of supply to markets, particularly during the rainy season.

At scheme and cluster level, produce aggregation and marketing facilities will be developed, including covered market sheds, collection points, and storage structures. These facilities will support grading, sorting, weighing, and temporary storage of produce, enabling bulking of volumes, improved quality control, and more efficient coordination with buyers and transporters. Post-harvest handling will be strengthened through the establishment of solar-powered cold storage units, pack houses, and drying facilities suited to dominant value chains in the project area, particularly horticultural crops and small grains. Cold storage will reduce spoilage of perishable produce, stabilise supply, and allow farmers to time market sales more effectively. Pack houses will support basic cleaning, grading, and packaging to meet buyer requirements.

The project will also support primary value addition and processing infrastructure at VBUs, such as milling units, oil expression equipment, and storage silos where appropriate. These facilities will reduce post-harvest losses, improve product consistency, and enhance local retention of value along the supply chain. Market infrastructure investments will be designed to strengthen supply chain linkages between producers, aggregation centres, transporters, processors, and off-takers. Facilities will be positioned to facilitate efficient flow of produce from farm gate to end markets, reducing handling steps and transaction costs. All market and post-harvest facilities will incorporate essential support features directly related to their function, including drainage, waste handling areas, potable water supply for produce handling, and basic sanitation for users. Infrastructure design will emphasise durability, low maintenance requirements, and suitability for rural operating conditions.

2.1.3 Catchment and Landscape Restoration

The Midlands project area faces widespread land degradation, including gully erosion, siltation of water bodies, streambank cultivation, and vegetation loss. RACP will implement a comprehensive set of catchment restoration measures for approximately 248.500ha, including gully reclamation, construction of stone bunds, establishment of vegetative filter strips, and adoption of controlled grazing systems. These interventions will be reinforced through tree

planting programmes, with a focus on indigenous multipurpose species that stabilise soils and provide economic benefits.

Community-managed nurseries will supply seedlings to sustain restoration efforts. The combined effect of these interventions will be to stabilise soils, improve water infiltration, reduce sedimentation of reservoirs, and restore ecosystem services essential for sustaining irrigation infrastructure and agricultural productivity.

2.1.4 Climate Information and Early Warning Systems

Strengthening adaptive decision-making in Kwekwe and Chirumhanzu will involve the installation of automated weather stations connected to an ICT-enabled platform. This integrated system will produce and distribute timely, location-specific data on rainfall trends, temperature fluctuations, pest and disease outbreaks, and flood risks. Agricultural extension services will incorporate this information into their advisory support, enhancing farm-level planning and improving risk mitigation strategies. As part of its climate resilience strategy, RACP will also introduce pilot weather-index insurance products. These instruments will offer smallholder farmers a financial buffer against weather-induced crop losses, helping to reduce exposure to climate shocks and stabilise rural livelihoods across the Midlands Province.

2.1.5 Capacity Building and Social Inclusion

The project will build the capacity of local institutions such as water user associations, irrigation management committees, farmer organisations, and catchment councils through structured training programmes. Training will focus on climate-smart agriculture, institutional governance, financial management, and infrastructure operation and maintenance. Gender equality, youth participation, and social inclusion are central to the project's approach, with targets of at least 50 percent participation by women and 30 percent by youth in governance structures and training programmes. Specialised training modules will address occupational health and safety, labour standards, and integrated pest management. These measures will ensure that social safeguards and sustainability considerations are mainstreamed into all aspects of project implementation.

The ESMP dictates that training content must address the following site-specific social and safety risks:

- Mandatory modules on the safe handling and application of chemicals, including the proper use of Personal Protective Equipment (PPE), to mitigate the risk identified at Sessombi and Senkwasi Irrigation Scheme

- **Wozoli Irrigation Scheme** needs focused training on water quality management, including understanding contaminants and implementing water testing practices. Sanitation and hygiene training is essential to highlight the importance of proper facilities and hygiene education for disease prevention. Additionally, training on equipment safety will cover safe handling, regular inspections, and emergency protocols for machinery.

- Focused training on the operation and preventative maintenance of upgraded infrastructure, including procedures for securing pumps and electrical infrastructure against the high incidence of theft (Igogo, Senkwasi and Milsonia)

- **Milsonia Irrigation Scheme** requires health and safety training on the proper use and maintenance of Personal Protective Equipment (PPE). Repair training should focus on troubleshooting pumps and establishing maintenance schedules. Environmental management training will address drainage issues and pest control in waterlogged areas.).

- **Igogo Irrigation Scheme**, pump security training should focus on safeguarding against environmental threats and adhering to maintenance schedules. Market access training will help farmers understand pricing dynamics and enhance group-marketing strategies. Lastly, gender equity training should promote women's participation in decision-making, addressing barriers to access resources.

2.1.6 Integration and Sustainability

The project design integrates physical investments, institutional support, and social inclusion into a coherent package. This ensures that strong governance systems, capacity building, and community participation complement infrastructure development. The result will be not only immediate gains in agricultural productivity, market access, and post-harvest handling but also long-term resilience to climate change, improved ecosystem health, and enhanced livelihoods across Kwekwe and Chirumhanzu.

2.1.7 RACP Project Phases

The implementation of the RACP in the Midlands Province will follow four key phases, each designed to embed environmental and social safeguards throughout the project lifecycle.

Planning Phase

This phase will include site selection, feasibility assessments, and the development of technical designs for irrigation systems, VBUs, water harvesting structures, feeder roads, and market infrastructure. Environmental and Social Impact Assessments and site-specific ESMPs will be prepared in line with the AfDB's ISS and IFAD's SECAP. Comprehensive stakeholder consultations with catchment councils, RDCs, and community representatives will ensure that local priorities and concerns are integrated into project planning. It also includes the immediate installation of security infrastructure (fencing, palisade cages) and the implementation of a site-specific Grievance Redress Mechanism (GRM) to address potential land, labour, or noise complaints immediately. Contractors will be monitored to ensure adherence to ESMP provisions and national environmental standards.

Construction Phase

This stage will involve the execution of civil works such as irrigation rehabilitation, installation of solar powered VBUs and SBUs, construction of rainwater harvesting structures, and improvement of feeder roads and market infrastructure. Contractors will implement site-specific mitigation measures, including erosion control, dust suppression, waste management, and occupational health and safety measures, under continuous monitoring for compliance with ESMPs and national environmental regulations.

Operation Phase

Once infrastructure is operational, the focus will shift to supporting farmers and local institutions to maximise productivity, adopt climate-smart practices, and utilise climate information systems. Weather-index insurance schemes will be piloted to strengthen resilience. Continuous monitoring and adaptive management will ensure that interventions remain responsive to emerging challenges and opportunities.

Decommissioning and Site Restoration Phase

At the end of the project, all temporary works will be decommissioned; construction sites rehabilitated, and disturbed areas restored to their original or improved conditions. Activities will include backfilling borrow pits, stabilising embankments, replanting vegetation, and

restoring natural habitats. These actions will ensure that no residual environmental damage remains and that project sites are safe and sustainable for future use.

Through these phases and integrated interventions, RACP will catalyse a shift towards more resilient, inclusive, and commercially viable agriculture in the Midlands Province, positioning smallholders in Kwekwe and Chirumhanzu at the centre of a more sustainable and climate-adapted rural economy. The aim is to ensure that no long-term environmental degradation or social disruption remains after project completion, in line with AfDB/IFAD safeguard policies and national requirements. This includes the orderly disposal or handover of all newly constructed communal facilities (WASH blocks, packing sheds) and the safe disposal of potentially contaminated materials from aged infrastructure (e.g., oil from transformers, chemical residues).

2.2 Location of the Irrigation Schemes

The five irrigation schemes targeted for rehabilitation under the RACP are strategically located within the Kwekwe and and Chirumhanzu districts of Midlands Province, Zimbabwe. Their specific locations are as follows:

Table 7: Scheme locations

Irrigation Scheme	Approximate Distance from Kwekwe Town	Location Coordinates
Wozoli	20 kilometers	18°59'08"S and 29°17'27"E
Igogo	12 kilometers	19°01’31.77” S and 29°58’ 33.68” E
Milsonia	10 kilometers	18°46'40"S and 29°59'32"E
Sessombi	55 kilometers	19°01'06"S and 29°25'00"E
Senkwasi	60 kilometers	18°34'27.80"S and 29°26'15.04"E

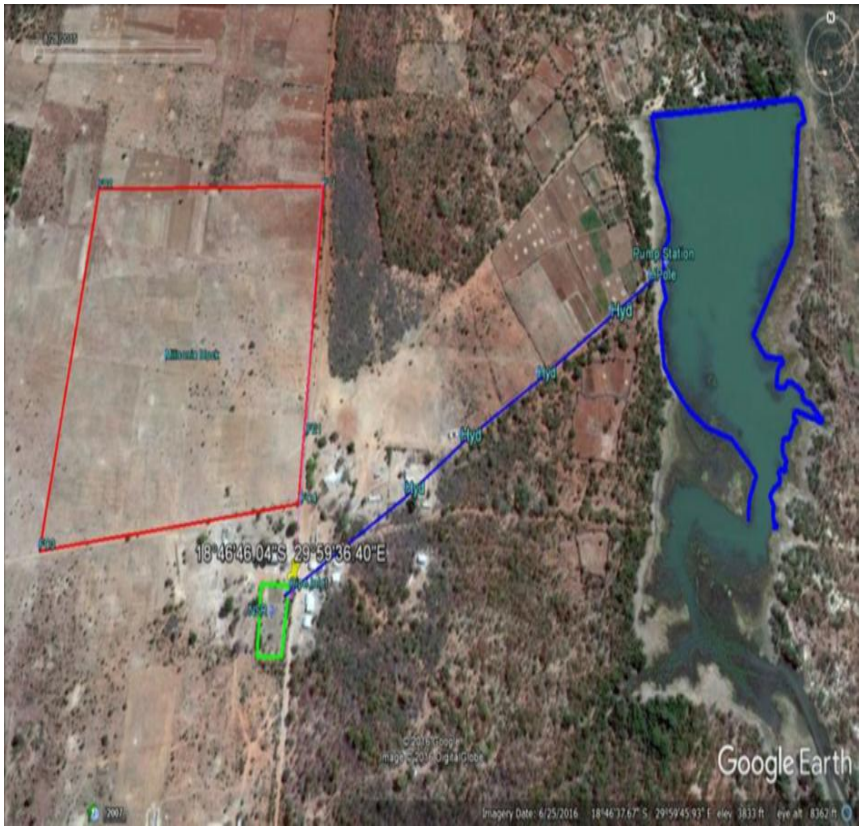


Figure 2: Milsonia irrigation scheme.

Figure 3: Wozoli irrigation scheme

Figure 4: Location of the Igogo Irrigation Scheme

Figure 5: Location of Sesombe Irrigation Scheme

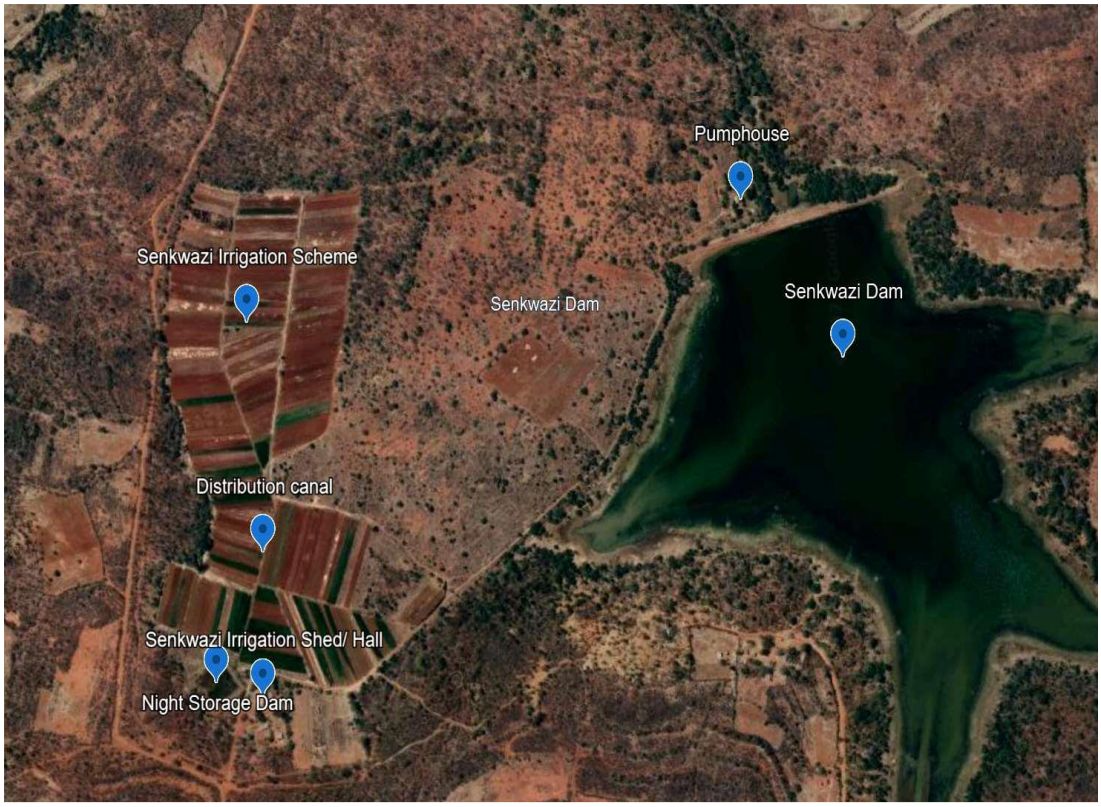


Figure 6: Location of the Senkwasi Irrigation Scheme

2.3 Management Systems

All irrigation schemes under RACP will operate within integrated environmental and social management systems that align with the Environmental Management Act [Chapter 20:27], IFAD's SECAP (2021), and the AfDB's ISS (2023). Each Irrigation Management Committee (IMC) will develop and implement site-specific protocols for waste management, emergency preparedness, infrastructure maintenance, and sanitation, ensuring full compliance with regulatory standards and development partner requirements.

2.3.1 Waste Management

Each scheme will prepare a Waste Management Plan covering the collection, segregation, temporary storage, and safe disposal of domestic, agricultural, and construction-related waste. RPAs have identified common waste streams, including damaged pipes, obsolete pumps, electrical cables, broken hydrants, and concrete debris from civil works. Transitioning from older sprinkler systems to modern irrigation technologies will also generate redundant aluminium and HDPE pipes, which will be collected and recycled through licensed scrap dealers.

Breakdowns at some schemes have resulted in transformer oil leaks and accumulations of worn-out components, requiring careful handling and disposal in line with EMA regulations. The Waste Management Plan will prioritise reuse and recycling of recoverable materials, with non-recyclables transferred to EMA-approved disposal facilities. Agricultural residues will be composted or incorporated into soils to improve fertility, while hazardous waste such as used oils, transformer fluids, and pesticide containers will be sealed and handed over to licensed disposal contractors. Domestic waste will be segregated and transported to local authority disposal sites. These measures will reduce pollution risks, support circular economy practices, and maintain full compliance with AfDB, IFAD, and national standards.

Each scheme will maintain a simple but functional Emergency Preparedness and Response Plan (EPRP) aligned to local district protocols. This will include training IMCs and farmers in safe shutdown procedures for pumping units, response to floods and storm damage, first aid, and reporting of chemical or fuel spills. Based on RPA observations, the EPRP for the Midlands cluster must be strengthened to specifically address the high-risk operational and health issues identified.

2.3.2 Emergency Preparedness

Each irrigation scheme will maintain a basic Emergency Preparedness and Response Plan aligned with district disaster management protocols. The plan will include procedures for safe equipment shutdown, flood and storm response, first aid, and spill reporting. Based on RPA findings, schemes will install warning signage, establish muster points, and develop rapid communication systems such as community WhatsApp groups linked to the Meteorological Services Department to facilitate early warning and coordinated response. Also training IMCs and farmers in safe shutdown procedures for pumping units, response to floods and storm damage, first aid, and reporting of chemical or fuel spills. Based on RPA observations, the EPRP for the Midlands must be strengthened to specifically address the high-risk operational and health issues identified:

The **Wozoli Irrigation Scheme** faces significant risks related to pump and electrical failures due to high frequencies of breakdowns and power outages. To address these issues, it is essential to establish protocols for the manual isolation of faults and the immediate activation of standby units when needed. Additionally, communication protocols for reporting outages to ZESA are critical. The scheme also struggles with WASH-related challenges, particularly the lack of potable water and adequate sanitation facilities, which could lead to health risks. Public

health response protocols must be developed to notify the District Health Office about any suspected outbreaks of waterborne diseases.

At the **Senkwasi Irrigation Scheme**, similar concerns regarding pump and electrical failures apply, necessitating management protocols similar to those outlined for Wozoli. Moreover, the use of chemicals without adequate personal protective equipment (PPE) highlights the need for clear procedures for first aid and decontamination in the event of pesticide exposure. Cleanup protocols for chemical spills are also essential to ensure the safety of farm workers. In addition, the scheme is at risk of theft and vandalism of infrastructure, requiring immediate reporting protocols to local authorities, like the Zimbabwe Republic Police and ZESA, to minimize downtime and secure assets effectively.

The **Milsonia Irrigation Scheme** deals with health and safety risks due to a lack of PPE during farming activities, which increases the likelihood of injuries. Training around proper PPE usage and general safety practices is crucial. Additionally, the scheme has identified the necessity for protocols addressing chemical spills akin to those in Senkwasi, focusing on first aid and clean-up procedures following pesticide exposure.

The **Sessombi Irrigation Scheme** faces risks related to WASH and potential disease outbreaks due to insufficient potable water and sanitation facilities. As with Wozoli, it is vital to create public health response procedures for notifying health authorities about suspected outbreaks. Additionally, the distribution of divided plots can lead to resource conflicts among farmers, underscoring the need for effective conflict resolution strategies.

The **Igogo Irrigation Scheme** highlights vulnerabilities related to pump failures, particularly as existing pumps are at risk from flooding. This necessitates secure positioning of equipment as well as protocols for managing pump failures. Furthermore, the scheme is vulnerable to theft and vandalism, which requires established reporting procedures to local authorities. Inequities in market access due to inadequate transport infrastructure further hinder income opportunities for farmers, emphasising the need for improved access strategies.

2.3.3 Trail Waste Management

Routine maintenance such as canal cleaning, pump servicing, and pipeline repairs will generate small amounts of trail waste, including silt, vegetative matter, worn seals, and concrete fragments. Some schemes reported severe siltation caused by upstream streambank cultivation and vegetation encroachment on dam walls, as well as blocked channels leading to flooding of pump houses. To manage trail waste, immediate collection and appropriate reuse (such as

vegetative matter for mulching) will be implemented, while non-reusable materials will be removed promptly to prevent drain blockage or water contamination.

2.3.4 Sewage Treatment and Disposal

The recent assessments by RPAs have highlighted that sanitation facilities are inadequate across most irrigation schemes. Many sites rely on shallow pits or wells without field toilets, while others provide insufficient facilities for plot holders. The Resilience Agriculture Cluster Project (RACP) aims to address these deficiencies by installing appropriate sanitation systems, such as Blair toilets or septic tanks, positioned away from canals and water bodies.

In the Midlands, all five irrigation schemes, Sesombe, Senkwasi, Wozoli, Igogo, and Milsonia currently lack proper ablution facilities. Consequently, each scheme requires the mandatory construction of new sanitation blocks to ensure hygiene and proper waste disposal. Effluent will be treated on-site using lined soak pits or compact treatment units before infiltration. Regular inspections and desludging will be carried out to prevent contamination, in compliance with Environmental Management Agency (EMA) and Ministry of Health and Child Care (MoHCC) standards.

It is essential for these new facilities to be functional and strategically located away from water sources to prevent contamination. Implementing standard practices for sewage treatment and disposal is crucial for safeguarding the quality of irrigation water and mitigating risks associated with waterborne diseases. Regular inspections and maintenance will be vital to ensure that these facilities operate effectively, thereby protecting public health.

2.3.5 Solid Waste Management

Solid waste identified during RPAs includes broken aluminium pipes, worn sprinklers, leaking hydrants, and domestic refuse. Theft and breakage of pipes have contributed to waste accumulation, while non-standard equipment has resulted in piles of unusable components. The absence of perimeter fencing in some areas also allows livestock to scatter waste across cropped fields. Under RACP, solid waste will be managed through a structured system that includes the triple rinse, puncture, and return protocol for chemical containers, designated recycling points for metals and plastics, and segregated collection bins for domestic refuse. IMCs will coordinate periodic clean-up campaigns with RDCs, and organic residues will be composted or incorporated into soils to reduce open burning and enhance soil health.

Through these integrated management systems, RACP will ensure that all environmental and social risks associated with scheme rehabilitation and operation are effectively mitigated. This approach will support compliance with regulatory standards, strengthen institutional capacity, and contribute to the long-term sustainability and resilience of irrigation infrastructure in Kwekwe and Chirumhanzu districts.

2.3.6 Beneficiaries profile

The current and potential beneficiaries across Wozoli, Igogo, Milsonia, Sessombi, and Senkwasi irrigation schemes are predominantly smallholder household's dependent on mixed crop and livestock production. Where schemes remain partially functional (e.g. Wozoli, Igogo, Senkwasi), beneficiaries consist mainly of long-established plot holders cultivating small irrigated areas for household consumption and limited market sales. In schemes that have been non-functional for extended periods (notably Milsonia and Sessombi), formal irrigation beneficiaries are currently few or inactive, with livelihoods sustained primarily through rain-fed agriculture, casual labour, and livestock rearing.

Across all schemes, women constitute a significant proportion of active agricultural labour and are heavily involved in crop production, weeding, harvesting, and marketing of produce. However, their participation in irrigation scheme governance and decision-making structures remains limited. Youth participation in irrigation activities is generally low, reflecting constrained access to land and irrigation plots, limited capital, and weak incentives arising from scheme underperformance. Despite this, RPAs consistently highlight strong youth interest in irrigation-linked opportunities, particularly where rehabilitation is expected to restore water reliability and introduce value addition and enterprise activities.

Vulnerable households, including female-headed households, elderly farmers, households with very small plots, and chronically poor households, are present across all schemes and are more exposed to production risks, water shortages, and income instability. These groups stand to benefit significantly from improved irrigation functionality but may face barriers to equitable access if targeted inclusion measures are not implemented.

There are an estimated 290 current irrigation beneficiary households across the five schemes. Beneficiaries are concentrated in schemes that remain partially functional, with approximately 90 households at Senkwasi, 80 at Wozoli, and 65 at Igogo. Milsonia and Sessombi support fewer active beneficiaries, estimated at 25 and 30 households respectively, largely due to prolonged scheme non-functionality. Women account for a significant share of irrigation

participation, with an estimated 137 women actively involved in irrigated production and about 88 female-headed households across the schemes. While women play a central role in farming activities, their representation in irrigation management structures remains limited. Youth participation is comparatively low, with an estimated 51 youth (18–35 years) directly engaged in irrigation or related activities. Vulnerable households, including elderly farmers, widows and chronically poor households, account for an estimated 74 households across the schemes. These groups are highly dependent on irrigation for livelihoods and are particularly sensitive to water shortages and production risks, highlighting the importance of inclusive beneficiary targeting as the schemes are rehabilitated.

2.3.7 Project Costs

The estimated costs for implementing the RACP have been structured to reflect the major investment components and safeguard measures, providing a clear overview of the financial resources required to deliver the planned interventions across the Midlands province (see Table 8).

Table 8: Project Costs

Cost Component	Key Activities	Cost (USD)
Irrigation Infrastructure	Rehabilitation and modernisation of 236 ha of irrigation systems, including pump replacement, canal lining, pressure regulation, 18 km of new infield pipelines, hydrant upgrades, drainage improvements, and installation of isolation valves.	795,506.00
Solar-Powered VBUs/SBUs	Installation of 13 solar-powered village and school business units to support irrigation operations, agro-processing, and small-scale enterprises.	454,525.00
Rainwater Harvesting Systems	Construction of 133 household rainwater harvesting systems, including rooftop collection units, storage tanks (5,000–10,000 L capacity), infiltration pits, and water conveyance channels.	291,685.00
Road-Water Harvesting Ponds	Development of 5 road runoff harvesting ponds with a combined storage capacity of approximately 12,000 m^3 to intercept stormwater and reduce erosion along feeder roads.	162,814.00

Cost Component	Key Activities	Cost (USD)
Feeder Road Upgrading	Upgrading of 4 km of feeder roads to all-weather standard, including culvert installation, drainage structures, and road-surface compaction to improve year-round market access	1,657,303.00
Mobile Market Sheds	Construction of 2 to 3 district-level mobile market sheds with grading bays, weighing platforms, and water and sanitation facilities to improve aggregation and farm gate marketing.	1,061,798.00
Post-Harvest Centres	Establishment of 1 post-harvest and storage centre equipped with a 25 m^3 solar-powered cold room, grading and packaging areas, and basic processing facilities.	2,013,483.00
Catchment Restoration	Rehabilitation of 265 ha of degraded catchments, including gully reclamation, construction of stone bunds, installation of 15 km of vegetative filter strips, and establishment of controlled grazing zones.	795,506.00
Tree Planting and Nurseries	Production and planting of approximately 660,000 indigenous and multipurpose tree seedlings from 2 to 3 community-managed nurseries to support ecosystem restoration and watershed rehabilitation.	1,192,978.00
Weather Stations and ICT Systems	Installation of 7 automated weather stations integrated with an ICT platform for early warning, climate data dissemination, and decision support for farming communities.	556,303.00
Capacity Building	Delivery of comprehensive training programmes for 2,000 farmers and 150 institutional personnel on climate-smart agriculture, water governance, OandM, business development, and extension services.	530,337.00
Gender and Youth Inclusion	Implementation of gender and youth-focused initiatives, including leadership training, enterprise development grants, and governance quotas to enhance equitable participation.	159,551.00
Safeguards Implementation	Implementation of ESMP, IPMP, LMP, OHS protocols, periodic audits, monitoring activities, and environmental	172,472.00

Cost Component	Key Activities	Cost (USD)
	reporting to ensure compliance with AfDB, IFAD, and national regulations.	
Grand Total	—	**9,841,261.00**

2.4 Project Alternatives

The project alternatives chapter addresses potential implementation options for the Midlands Province irrigation schemes under the Smallholder Agriculture Cluster Project (SACP). It focuses on community feasible choices for irrigation rehabilitations across the five identified schemes: Wozoli, Senkwasi, Milsonia, Sessombi, and Igogo, as well as catchment restoration, feeder roads/markets, and energy supply solutions.

2.4.1 Purpose and Method

Alternatives were assessed to achieve SACP's objectives: restoring and expanding smallholder irrigation, reducing siltation, improving market access, and ensuring social inclusion while minimizing adverse impacts and life-cycle costs. The screening covered the following options:

(i) No Project,
(ii) Site/layout
(iii) Irrigation technology
(iv) Energy supply
(v) Catchment restoration approaches,
(vi) Market access/post-harvest solutions
(vii) WASH siting/technology
(viii) Waste/pollution management
(ix) Delivery/operation models.

Evaluation Criteria (MCDA)

The evaluation considered the following:

1. Environmental performance (erosion/siltation; biodiversity; pollution).
2. Social inclusion/SEAH safety; health/WASH; labour burden.

3. Technical reliability/resilience (load-shedding tolerance; OandM complexity).
4. Regulatory alignment (EMA, ZINWA permits, SECAP/ISS).
5. Economic efficiency (Capex/Opex; lifecycle).
6. Implementation risk (theft/vandalism; land/conflict).

The ESMP's risk/impact framing and management plans informed scoring and residual risk logic.

2.4.2 "No Project" Alternative

Description: Maintaining the status quo means that non-functional or under-performing pumps and mainlines, ongoing siltation of dams/weirs, weak market access, lack of WASH improvements, and persistent load-shedding disruptions will remain unchanged.

Consequences:

- **Environmental**: Continued erosion, siltation, and declining water quality.
- **Social**: Ongoing gendered labour burdens, WASH deficits, and safety risks from aging electricals.
- **Economic**: Lost production, income, and significant losses from poor post-harvest handling.

Decision: This option is rejected as it contradicts the project's purpose, national priorities, and the ESMP's mitigation logic.

2.4.3 Site and Layout Alternatives

Options considered:

- A. Rehabilitate existing schemes in place (optimize alignments, repair/replace defective assets).
- B. Greenfield new schemes (new footprints and headworks).
- C. Partial re-routing/optimization (e.g., relocating pump houses above flood risk, rerouting leaking mainlines).

Findings: In-place rehabilitation minimizes land take and avoids critical habitat disturbance, addressing known defects with a quicker permitting process. Partial re-routing provides hydraulic and resilience gains with minor footprint changes.

Decision: The ideal choice is A, combined with targeted C. B is rejected due to higher environmental and social risk.

2.4.4 Irrigation Technology Alternatives

Baseline Issues: Many irrigation schemes in the Midlands face various challenges, including underpowered or failed pumps, leaking or aged mainlines, labour-intensive systems that disadvantage women and the elderly, and pressure or coverage issues.

Assessment & Selection by Site

- **Sesombe**:
    - **Issues**: Pressure coverage problems with existing systems.
    - **Preferred Options**: Adopt drag-hose semi-portable systems to ensure lower pressure and reduced labour requirements, along with drip/micro-irrigation for high-value crops.
- **Senkwasi**:
    - **Issues**: Aging mainlines resulting in water losses.
    - **Preferred Options**: Upgrade mainlines and consider drag-hose semi-portable systems to improve efficiency, with selective use of drip/micro-irrigation for more intensive cropping.
- **Wozoli**:
    - **Issues**: Underpowered pumps affecting irrigation effectiveness.
    - **Preferred Options**: Implement drag-hose semi-portable systems to alleviate labour strain and ensure consistent water delivery. Consider drip/micro-irrigation for specific horticultural applications.
- **Igogo**:
    - **Issues**: Inefficiencies in labour-intensive systems and insufficient water coverage.
    - **Preferred Options**: Transition to drag-hose semi-portable systems for less strenuous operations, with the potential of using drip/micro-irrigation in targeted areas.

- **Milsonia**:
    - **Issues**: Problems with the efficiency of existing systems and challenges with market access.
    - **Preferred Options**: Focus on drag-hose semi-portable systems to enhance accessibility and ease of use, along with implementing drip/micro-irrigation for higher-value crops.

Decisions

The final decision prioritizes the implementation of drag-hose semi-portable systems across the Midlands schemes as an inclusive, lower-pressure retrofit to improve overall effectiveness. Drip/micro-irrigation will also be employed on high-value blocks. Fixed/automated systems, such as center pivots or fixed sprinklers, may be used selectively where the terrain allows. Open canal systems are rejected except for transitional or short reaches due to inefficiencies.

2.4.5 Energy Supply Alternatives

Baseline Issues: The irrigation schemes in the Midlands frequently experience grid power outages and load shedding, impacting their operational reliability.

Assessment of Energy Supply Alternatives

- **Grid-only:** While offering a lower initial capital expenditure, this option poses a high risk of downtime due to the frequent power outages, which can disrupt irrigation schedules and affect crop yields.
- **Diesel generators:** This provides a quick backup power source, but it has been associated with high operational costs and increased greenhouse gas emissions, making it a less sustainable option.
- **Solar-grid hybrid:** This approach offers a more resilient solution by integrating solar power with the existing grid infrastructure. It can lead to potential savings on operational costs and provide a more reliable energy source. Security measures, such as robust fencing and proper cabling, should still be considered to protect the solar infrastructure, even though theft was reported in other areas.

Decision

The recommended energy supply alternative for the five Midlands irrigation schemes is a solar-grid hybrid system. This approach improves energy reliability across all schemes and reduces operational costs. It aligns with sustainability goals, ensuring more effective irrigation operations in the long term. While there are issues of theft is measures can be tailored to the specific security needs of the Midlands schemes, ensuring their infrastructure is protected.

2.4.6 Catchment Restoration Alternatives

Problem: Siltation from upstream erosion and streambank cultivation pressures in Milsonia

Options:

- A) Mechanical interventions (gabions and silt traps)
- B) Biological interventions (filter strips and tree programs)
- C) Integrated bio-physical approaches

Decision: Integrated approach C is selected for long-term stability and additional co-benefits.

2.4.7 Market Access and Post-Harvest Alternatives

1. **Upgrade existing feeder roads and market facilities**: Many schemes, such as Sesombe and Senkwasi, have emphasized the need for better road infrastructure to facilitate easier transport of produce to markets. Upgrading these roads will improve access and reduce post-harvest losses due to delays.
2. **Construct new roads**: Wozoli and Igogo have highlighted insufficient access to existing markets, suggesting that constructing new roads could enhance market connectivity and benefit local farmers.
3. **Transport subsidies without infrastructure**: This option could provide short-term relief, especially in areas like Milsonia, where current transport logistics are problematic. However, it would not address the underlying infrastructure needs.

Decision

The recommended approach is to **upgrade existing feeder roads and market facilities**. This decision minimizes the project's footprint and land acquisition requirements while directly

addressing issues related to dust and noise affects, as specified under the Environmental and Social Management Plan (ESMP). Furthermore, it reduces post-harvest losses by improving the efficiency of transporting goods from the schemes to markets. Importantly, it will enhance connections to the on-scheme sheds and collection points that are currently being developed, thereby strengthening the overall market access for farmers in the Midlands irrigation schemes.

2.4.8 WASH Siting and Technology Alternatives

Context: WASH deficits at Igogo schemes with cholera/diarrhoea risk if poorly sited; ESMP requires new potable water points and ablutions with safe offsets from water bodies/infield drains and proper treatment/inspection regime

- **Centralized ablution blocks**: These offer ease of maintenance and monitoring but may be less accessible for field workers.
- **Distributed smaller units**: These provide better accessibility but increase the burden of operation and maintenance.
- **Hybrid approach**: This approach features a main block combined with simple satellite hand-washing stations and urinals, along with a potable borehole positioned according to hydro-sanitary setbacks, utilizing lined pits or compact package plants.

Given the need to minimize public health risks while balancing accessibility and maintenance, the decision is to implement the **hybrid option**. This approach ensures that facilities are accessible to users in the fields while remaining manageable in terms of upkeep and sanitation. It also aligns with the ESMP requirement for new potable water points and ablution facilities that are safely distanced from water bodies and infield drains.

2.4.9 Waste and Pollution Management Alternatives

Streams: Construction rubble, old materials, and used oils, pesticide/fertiliser containers, Waste Electrical and Electronic Equipment (WEEE)

Options:

1. Non-compliant disposal methods

2. Integrated waste management practices such as segregation, triple rinsing and puncture, container return, licensed recyclers, hazardous wastes to EMA-approved facilities; IPM to reduce volumes.

Decision: Option 2 is preferred, conforming to ESMP requirements and integrating best practices.

2.4.10 Construction Method and Scheduling Alternatives

Options:

- A. Single-season intensive works
- B. Staged works by scheme

Decision: Staged works are preferred as they reduce environmental risk and align with ESMP phasing.

2.4.11 Delivery and Operation Model Alternatives

Options:

- **Contracting:** Conventional design-bid-build vs. design-build for pump/mainline packages.
- **O&M:** Pure IMC/WUA vs. IMC + service agreements (scheduled maintenance; security services for transformers/cables).

Decision: IMC-led with targeted service contracts (e.g., electrical maintenance; security fencing/cages), reinforced by ESMP training in O&M, OHS, IPM, and governance (with ≥50% women, ≥30% youth

2.4.12 Summary Decision Matrix (MCDA)

Table 9 summarises the decision matrix for project alternatives.

Table 9: Decision matrix for project alternatives

Alternative Block	Shortlisted Option	Env.	Social/SEAH and WASH	Tech/Resilience	Regulatory	Econ.	Overall
Site/Layout	Rehab in-place + targeted re-routing	High	High	High	High	High	Preferred
Irrigation Tech	Drag-hose + selective drip; fixed/automated where fit	High	High	High	High	High	Preferred
Energy	Solar-grid hybrid + security hardening	High	High	High	High	High	Preferred
Catchment	Integrated bio-physical + Micro-Catchment Plans	Very High	High	High	High	High	Preferred
Markets	Upgrade existing roads + mobile sheds + solar cold rooms	High	High	High	High	High	Preferred
WASH	Hybrid siting with sanitary offsets and lined systems	Very High	Very High	High	High	High	Preferred
Waste	Integrated Waste Mgmt + IPM + licensed disposal	Very High	Very High	High	High	High	Preferred
Build/Schedule	Phased by sensitivity; security/WASH first	High	Very High	High	High	High	Preferred
OandM/Gov.	IMC + service contracts; inclusive quotas	High	Very High	High	High	High	Preferred

("Very High/High" indicate relative performance against criteria; selections reflect ESMP commitments to solar VBUs, catchment rehab, feeder roads/markets, WASH, training, security fencing/cages, and repair/upgrade focus).

2.4.13 Residual Risk and Mitigation Linkage

The preferred alternatives for the Midlands irrigation schemes embed the Environmental and Social Management Plan (ESMP)'s mitigation hierarchy. This includes measures to:

- **Avoid**: Minimize new footprints by carefully planning new facilities around existing infrastructure.
- **Minimise**: Utilise erosion-aware layouts and adopt staged construction works to reduce environmental impact.
- **Mitigate**: Implement silt traps, Integrated Pest Management (IPM), WASH (Water, Sanitation, and Hygiene) initiatives, Occupational Health and Safety (OHS) measures, and enhance security through hardening techniques (e.g., fencing and armoured cabling).
- **Restore** Focus on re-vegetation and catchment rehabilitation efforts, especially in high-risk areas to stabilise soil and improve water quality.

Residual risks, such as abstraction competition, pesticide misuse, and theft, are explicitly addressed through ZINWA permits and monitoring, the establishment of IPM practices, container return systems, and the installation of transformer and cable cages with compliant armoured cabling.

2.4.14 Justification

This integrated package provides significant benefits for the Midlands irrigation schemes:

- It delivers rapid productivity gains by resolving known bottlenecks, including pump sizing, addressing mainline leaks, and improving control gear. This also lowers labour burdens and enhances inclusion through the conversion to drag-hose and drip irrigation systems in schemes like Sesombe and Senkwasi.
- Stabilisation of catchments is prioritised, incorporating rehabilitation efforts over 2,000 hectares, planting 5 million trees, and developing nurseries and micro-catchment plans. These efforts will protect dams, weirs, and overall water quality.
- Energy reliability is hardened through the implementation of a solar-grid hybrid system combined with security measures such as security cages and compliant cabling. This is

particularly important in schemes like Wozoli, which have noted vulnerabilities to theft and load shedding.

- The package also reduces losses and improves incomes by upgrading feeder roads, establishing mobile markets, and introducing solar cold storage linked to on-scheme sheds, as seen in the plans for Milsonia and Wozoli.

3.0 LEGAL AND POLICY FRAMEWORK

3.1 National Policies

National Environmental Policy and Strategies (2009)

This policy provides the overarching framework for sustainable environmental management and climate change integration. It requires development projects to integrate environmental protection and social considerations into all stages of the project cycle. For RACP, this means embedding catchment restoration, afforestation, waste management and stakeholder engagement into the design and operation of every scheme.

Zimbabwe Climate Policy (2016)

This policy guides the country's adaptation and mitigation efforts. It calls for climate risk assessments, renewable energy use and ecosystem-based approaches in agriculture and water management. RACP directly implements these priorities through solar-powered VBUs, large-scale rainwater harvesting, afforestation and early warning systems, thereby contributing to Zimbabwe's Nationally Determined Contributions under the Paris Agreement.

National Gender Policy (2013) and National Youth Policy (2020)

These policies provide a framework for gender equality and youth empowerment across all development programmes. RACP operationalises them by setting targets of at least 50 percent women and 30 percent youth in scheme governance, offering tailored training, and improving access to land, water and financial services.

National Social Security Authority (Occupational Safety and Health) Policy

This policy promotes the prevention of accidents, occupational diseases and unsafe work practices. It sets minimum standards for risk assessments, safety training and medical surveillance across all sectors, including agriculture. For RACP, this means all contractors and implementing partners must develop site-specific safety plans, provide appropriate protective equipment and report incidents in line with NSSA standards.

National Water Resources Master Plan and Integrated Water Resources Management Strategy

These instruments guide the efficient and equitable use of water resources at the catchment level. RACP supports this by obtaining water-use permits for all schemes, designing

infrastructure to reduce losses and promoting water-saving technologies such as lined canals and drip irrigation.

3.2 Acts

Environmental Management Act [Chapter 20:27] (2002)

This is Zimbabwe's primary environmental law. It requires Environmental Impact Assessments for projects with potential impacts and empowers the Environmental Management Agency to regulate pollution, conserve biodiversity and monitor compliance. For RACP, it means every irrigation scheme rehabilitation, water-harvesting structure, feeder road and market facility must be screened and approved with a site-specific Environmental and Social Management Plan before works commence, with ongoing monitoring and reporting during implementation.

Water Act [Chapter 20:24] (1998)

This Act governs the allocation and use of the country's water resources. It stipulates that all irrigation water abstraction and effluent discharge require permits issued by the Zimbabwe National Water Authority through Catchment Councils. For RACP, this ensures equitable and sustainable use of water across the Gwayi, Sanyati, Manyame and Mazowe catchments. It also compels the PIU and water-user associations to comply with water quality standards and integrated catchment planning.

Forestry Act [Chapter 19:05]

The Act regulates the utilisation and protection of forest resources. Any clearing of woodland for irrigation development or market construction must comply with its permit system and protected species lists. RACP's five-million-tree planting programme and 18 nurseries directly support the Act's objectives by offsetting any tree loss and enhancing catchment stability.

Parks and Wildlife Act [Chapter 20:14]

This Act protects biodiversity and sensitive habitats. It requires that developments adjacent to national parks, safari areas or wildlife corridors do not disrupt ecosystems or encroach into protected zones. For RACP, this means abstraction works; road upgrading and market construction in districts near Hwange National Park must be carefully assessed and mitigated to avoid harming wildlife.

Rural District Councils Act [Chapter 29:13]

This Act gives Rural District Councils authority over local land use planning and development. RACP must secure RDC approvals for irrigation works, feeder roads and market centres, and must carry out inclusive community consultations before land is taken for scheme expansion or infrastructure.

Labour Act [Chapter 28:01]

This Act sets standards for employment conditions and occupational health and safety. RACP contractors and implementing partners must provide fair contracts, safe working environments and appropriate protective equipment to all workers during the construction and operation of schemes.

Pneumoconiosis Act [Chapter 15:08]

This Act controls employment in dusty occupations and provides for medical surveillance, certification and benefits for affected workers. Although traditionally applied to mining, it is relevant to RACP during activities such as canal desilting, road construction and dam earthworks where dust exposure may occur. Contractors must therefore implement dust suppression, provide respirators where necessary and conduct medical checks.

Public Health Act [Chapter 15:17]

The Act regulates public health and sanitation. It is directly relevant to RACP's construction camps, VBUs and market facilities, which must have properly designed sanitation located away from water sources, with regular inspections to prevent contamination and disease.

Communal Land Act and Land Acquisition Act

These statutes govern land tenure and acquisition. Irrigation rehabilitation often involves reconfiguring fields or expanding command areas. RACP must work with traditional leaders and RDCs to secure land access and compensate for any affected community assets, ensuring lawful and socially acceptable land use.

3.3 Statutory Instruments

Environmental Impact Assessment Regulations, SI 7 of 2007

These regulations operationalise the Environmental Management Act's provisions on Environmental Impact Assessments. They specify procedures, content and approval processes

for EIA reports, Environmental, and Social Management Plans. Under RACP, each site-level intervention must be submitted to EMA for approval before works start.

Irrigable Areas (Control) Regulations, 2021 (S.I. 38 of 2021)

These regulations govern occupation, use, management, and environmental practices within proclaimed irrigable areas. They establish irrigation funds, agencies, levies and environmental obligations such as soil conservation works, stock control and sanitation. For RACP, compliance means ensuring that each rehabilitated scheme has an approved layout, levy system, sanitation plan and environmental controls consistent with these regulations.

Waste Management Regulations, SI 6 of 2007

These regulations set standards for the storage, transport and disposal of solid and liquid waste. They apply to waste generated during RACP's construction and operation phases, including construction rubble, used oils, chemical containers and domestic refuse. The PIU must ensure safe collection, segregation, transport and disposal through licensed facilities.

Effluent and Solid Waste Disposal Regulations, SI 12 of 2007

These regulations complement the Waste Management Regulations by requiring effluent discharge permits and setting water quality standards for irrigation return flows, thereby reducing downstream pollution.

Water (Permits) Regulations, SI 206 of 2001

These regulations detail how irrigation schemes must apply for and maintain water abstraction and effluent discharge permits from ZINWA. Any new boreholes, dams or abstraction points under the project cannot operate without these approvals. There is also emphasis on compliance in terms of bulk monitoring, levy payments and reporting to ZINWA and sub-catchment councils.

Collective Bargaining Agreement: Agricultural Industry, Agro Sector (S.I. 97 of 2024)

This agreement sets minimum wages and working conditions for agricultural workers. RACP must align all employment contracts for scheme construction and operation with these minimums, ensuring fair remuneration in both Zimbabwean and US dollars as stipulated.

3.3.1 Applicable African Development Bank Operational Safeguards (ISS, 2023)

The African Development Bank Integrated Safeguards System (ISS, 2023) outlines ten Environmental and Social Operational Safeguards (OS) that Borrowers must adhere to throughout the project lifecycle. The RACP interventions in the Midlands Province, which encompass the rehabilitation of irrigation schemes, feeder road improvements, catchment restoration activities, and the installation of water harvesting infrastructure, fall under Environmental Category 2. This category pertains to activities with site-specific, predictable environmental and social risks that can be effectively managed through standard mitigation measures.

Operational Safeguards that apply to the RACP in Midlands Province

OS1: Assessment and Management of Environmental and Social Risks and Impacts

OS1 is applicable to all RACP activities in the Midlands Province. It mandates an integrated Environmental and Social Assessment and continuous management of risks throughout design, construction, and operation. This includes all irrigation rehabilitation, catchment restoration, and feeder road works. Environmental and social management plans are developed for each impact to ensure compliance with national requirements. For catchment interventions, factors such as gully reclamation, stormwater management, and reforestation are assessed for downstream effects, soil stability, and hydrological changes. Stakeholder engagement is crucial, with consultations involving irrigation associations and community leadership central to compliance.

OS2: Labour and Working Conditions

OS2 applies due to the involvement of skilled and unskilled labour in irrigation rehabilitation, road upgrades, and water infrastructure installation. This safeguard requires that all project workers operate in safe and fair conditions. Key risks include occupational injuries, labour influx impacts, risks of sexual exploitation and harassment, potential child labour, and insufficient grievance mechanisms for workers. Compliance necessitates implementing Labour Management Procedures and Occupational Health and Safety Plans, which cover worker induction, personal protective equipment, emergency preparedness, and codes of conduct with explicit provisions for SEAH. A separate worker grievance mechanism will operate alongside the community system, with all contractors adhering to the Labour Act and the Factories and Works Act.

OS3: Resource Efficiency, Pollution Prevention and Management

OS3 is triggered due to the RACP's involvement in earthworks, water abstraction, and potential pollution from agrochemical use and waste generation. Without proper management, irrigation rehabilitation could lead to soil erosion, siltation, and chemical runoff. Mitigation measures include erosion and sediment control at construction sites, proper handling and storage of hazardous materials, promoting climate-smart agriculture, monitoring water abstraction with ZINWA, and advocating for solar-powered irrigation solutions. Annual reviews of greenhouse gas emissions and climate adaptation performance will also support compliance with OS3.

OS4: Community Health, Safety and Security

As RACP activities occur within established rural communities, OS4 is relevant. Construction vehicles and equipment create road safety risks, while excavations around canals and pipelines pose hazards to community members. The influx of labour may increase exposure to communicable diseases and SEAH risks. Security personnel may be employed to safeguard equipment and construction materials. To comply with OS4, the project will implement a Community Health and Safety Plan, addressing emergency preparedness, disease prevention, road safety, universal access to infrastructure, and incident reporting. Contractors are expected to implement measures such as signage, fencing hazardous areas, and providing first aid facilities.

OS5: Land Acquisition, Restrictions on Access and Involuntary Resettlement

OS5 applies as a precautionary measure. The project is designed to operate within existing irrigation footprints and communal land arrangements. Realignment of canals, extension of pipelines, and rehabilitation of feeder roads may affect access to environmentally sensitive areas. Consultations will adhere to the Free, Prior, and Informed Consent process for affected persons, and any restrictions will be addressed through participatory agreements.

OS6: Habitat and Biodiversity Conservation and Sustainable Management of Living Natural Resources

OS6 applies as RACP interventions affect the local ecosystems in the Midlands, including wetlands and woodlands. Vegetation clearance for canal works and road access may disturb natural habitats. Mitigation strategies will prioritise avoiding critical habitats, minimising vegetation clearance, rehabilitating disturbed areas with native plant species, and monitoring

aquatic and terrestrial biodiversity. Collaboration with local authorities will be essential for sustainable ecosystem management.

OS7: Vulnerable Groups

OS7 applies as RACP supports smallholder farmers, women, youth, persons with disabilities, and other vulnerable groups. The safeguard ensures equitable access to project benefits and protection from disproportionate impacts. Measures will ensure gender-responsive and inclusive access to irrigation opportunities and collect disaggregated data on sex, age, and disability.

OS10: Stakeholder Engagement and Information Disclosure

OS10 applies due to the geographic spread of irrigation schemes in the Midlands and the necessity for continuous consultation. The Stakeholder Engagement Plan will facilitate meaningful engagement throughout the project, including the disclosure of information in English and Shona, consultations with communities, and a functioning grievance redress mechanism.

The summary of the Operational Safeguards triggered by the RACP project in the Midlands Province is outlined in Table 10

Table 10: Operational Safeguards

Operational Safeguard (OS)	**Triggered**	**Justification / Applicability**
OS1: Environmental and Social Assessment	✓	Overall assessment of environmental and social impacts.
OS2: Labour and Working Conditions	✓	Management of construction labour, occupational health, and SEAH risks.
OS3: Resource Efficiency and Pollution Control	✓	Pollution and waste management, irrigation efficiency, and technologies.
OS4: Community Health, Safety and Security	✓	Traffic, public safety, and disease prevention measures.
OS5: Land Acquisition and Resettlement	✓ (Precautionary)	Potential minor land or livelihood impacts during irrigation works.

Operational Safeguard (OS)	Triggered	Justification / Applicability
OS6: Biodiversity and Natural Resources	✓	Disturbances to ecosystems from works and catchment restoration.
OS7: Vulnerable Groups	✓	Gender and youth inclusion measures integral to project design.
OS8: Cultural Heritage	✕	No physical cultural heritage sites identified; chance finds procedures apply.
OS9: Financial Intermediaries	✕	Project not implemented through financial intermediaries.
OS10: Stakeholder Engagement and Disclosure	✓	Broad-based engagement and information dissemination.

3.3.2 Applicable IFAD Social, Environmental and Climate Assessment Procedures (SECAP) Standards (SECA, 2021)

The International Fund for Agricultural Development (IFAD) requires all financed projects to comply with its Social, Environmental and Climate Assessment Procedures (SECAP, 2021). SECAP defines nine mandatory environmental, social, and climate standards that advance environmental sustainability, social inclusion, and climate resilience throughout the project cycle. In the context of the RACP in the Midlands Province, these standards apply to all activities including irrigation rehabilitation, water harvesting, catchment restoration, and the establishment of Village Business Units (VBUs). The project has been classified as Category B (moderate risk), necessitating a site-specific Environmental, Social, and Climate Management Plan (ESCMP) and periodic risk monitoring under SECAP Step 6.

SECAP Standard 1: Biodiversity Conservation

This standard protects natural habitats and species diversity. RACP activities such as canal rehabilitation and catchment restoration may impact ecosystems or remove vegetation. The project will avoid critical habitats, restore native vegetation, and integrate biodiversity monitoring within its ESMP.

SECAP Standard 2: Resource Efficiency and Pollution Prevention

This standard emphasises resource efficiency and pollution prevention from construction and agricultural activities. RACP will promote efficient irrigation systems and ensure adherence to environmental regulations regarding waste and effluents, encouraging climate-smart agriculture.

SECAP Standard 3: Cultural Heritage

Although no known heritage sites exist in the RACP areas, construction contracts will include a Chance Finds Procedure to protect potential cultural assets discovered during works.

SECAP Standard 4: Indigenous Peoples

While no communities in the Midlands meet the definition of Indigenous Peoples under IFAD policy, the project will uphold Free, Prior and Informed Consent (FPIC) principles to ensure equitable representation in consultations.

SECAP Standard 5: Labour and Working Conditions

RACP will engage skilled and unskilled labour, developing procedures aligned with local labour laws to ensure fair treatment, safety, and well-being. A separate grievance mechanism will address workers' concerns.

SECAP Standard 6: Community Health and Safety

This standard addresses potential health risks from the project activities. Mitigation measures will include a Community Health and Safety Plan focused on traffic management, sanitation, and disease prevention.

SECAP Standard 7: Physical and Economic Resettlement

The project will take a precautionary approach to address potential temporary disruptions to livelihoods, ensuring compensation at full replacement cost before commencing works.

SECAP Standard 8: Financial Intermediaries and Direct Investments

This standard does not apply, as the RACP is directly implemented by the Government of Zimbabwe.

SECAP Standard 9: Climate Change Adaptation and Mitigation

The project will integrate climate-resilient technologies and practices, addressing climate risks and promoting solar-powered irrigation to replace fossil-fuel pumps.

A summary of the triggered standards is presented in Table 11.

Table 11: Summary of Triggered IFAD SECAP Standards for RACP Midlands Province

SECAP Standard	Triggered	Justification / Applicability
Standard 1 (S1): Biodiversity Conservation	Yes	Addressing ecological rehabilitation and vegetation disturbance.
Standard 2 (S2): Resource Efficiency and Pollution Prevention	Yes	Water abstraction and pollution management.
Standard 3 (S3): Cultural Heritage	Precautionary	Chance finds procedure in place to safeguard potential cultural assets.
Standard 4 (S4): Indigenous Peoples	No (Contextual Application)	FPIC principles applied through stakeholder engagement.
Standard 5 (S5): Labour and Working Conditions	Yes	Compliance with OHS and GBV prevention in construction labour.
Standard 6 (S6): Community Health and Safety	Yes	Addressing public safety and disease prevention related to project activities.
Standard 7 (S7): Physical and Economic Resettlement	Precautionary	Potential temporary access restrictions during project works.
Standard 8 (S8): Financial Intermediaries	No	Direct government implementation.
Standard 9 (S9): Climate Change	Yes	Climate adaptation and mitigation strategies integrated into activities.

Integration with IFAD Accountability and Incident Procedures

All RACP activities will adhere to IFAD's Complaints Procedure (EB-2022-136-R-27), allowing stakeholders to voice concerns about non-compliance with SECAP standards. The IFAD Incident Notification Procedure (2023) mandates reporting any significant

environmental, social, health, or safety incidents to the Country Director within two days, with subsequent escalation through IFAD's operational structures for verification and corrective action.

In addition to meeting Zimbabwe's national legislation and policy requirements (Table 3), the Resilience Agriculture Cluster Project (RACP) is also aligned with the environmental, social and climate safeguards of its development partners and the international conventions to which Zimbabwe is a party. The project's Environmental and Social Management Plan has therefore been structured to comply with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP, 2021) and the African Development Bank's Integrated Safeguards System (ISS, 2023), while also addressing cross-cutting obligations under the Paris Agreement, the Sustainable Development Goals, the Convention on Biological Diversity, the Sendai Framework for Disaster Risk Reduction, and International Labour Organisation core conventions.

Table 12 and Table 13 summarise the main international instruments and standards applicable to the project, the compliance strategy adopted by the proponent, and the corresponding monitoring arrangements.

Table 12: National Policies, Legislation, and Institutional Framework

Legislation / SI	**Compliance Strategy by the Proponent**	**Permits / Licences / Certificates / Reporting Required**	**Monitoring Agent**
Environmental Management Act [Chapter 20:27] (OS1,;S1)	Conduct EIAs and develop ESMPs for all irrigation and infrastructure works; integrate mitigation into design and operation.	EIA Certificate; periodic compliance reports.	EMA
Environmental Impact Assessment Regulations, SI 7 of 2007 (OS1; S1)	Submit project-specific EIAs following prescribed procedures and consult stakeholders.	Approved EIA report; stakeholder disclosure records.	EMA

Legislation / SI	Compliance Strategy by the Proponent	Permits / Licences / Certificates / Reporting Required	Monitoring Agent
Forestry Act [Chapter 19:05] (OS6; S1andS9)	Obtain clearance before felling trees; implement the tree planting programme and nurseries.	Tree felling permits; afforestation plans.	Forestry Commission / EMA
Parks and Wildlife Act [Chapter 20:14] (OS6; S1andS9)	Avoid disturbance to sensitive habitats and wildlife corridors, especially near protected areas.	Biodiversity screening reports; wildlife corridor plans.	Parks and Wildlife Authority
Water Act [Chapter 20:24] (OS3,OS6andOS10; S2andS9)	Secure abstraction and discharge rights for each scheme and ensure allocation compliance.	Water abstraction and discharge permits.	ZINWA and Sub-catchment Councils
Water (Permit) (Amendment) Regulations, 2020 (No. 7) (OS3,OS6andOS10; S2andS9)	Pay updated water use fees and levies and comply with monitoring protocols.	Updated permits; levy receipts.	ZINWA
Zimbabwe National Water Authority (Water Levy) Notice, S.I. 106 of 2024 (OS3,OS6andOS10; S2andS9)	Check the applicability of levy exemptions for commercial farmers using raw water and apply for exemption if eligible.	Levy exemption certificate or levy receipts.	ZINWA / Ministry of Lands
Irrigable Areas (Control) Regulations, 2021 (S.I. 38) (OS1, OS2, OS3andOS4;	Operate schemes in compliance with admission rules, irrigation levies, sanitation, stock control	Scheme registration; levy payments; irrigation agency approvals.	Ministry of Lands and RDCs / District Irrigation Engineers

Legislation / SI	Compliance Strategy by the Proponent	Permits / Licences / Certificates / Reporting Required	Monitoring Agent
	and disciplined farming provisions.		
Communal Land Act and Land Acquisition Act (OS5andOS10; S4andS7)	Engage traditional leaders, document agreements and provide compensation if assets are affected.	Land access agreements; compensation records.	Ministry of Lands / RDCs
Rural District Councils Act [Chapter 29:13] (OS1,OS2, OS3, OS4andOS5;	Obtain RDC development approvals for feeder roads, VBUs and market infrastructure.	Development approval letters.	RDCs
Public Health Act [Chapter 15:17] (OS4; S6)	Provide safe sanitation and waste management at construction sites, VBUs and markets.	Health inspection certificates.	Ministry of Health and Child Care
Labour Act [Chapter 28:01] (OS2; S5)	Apply fair employment practices and occupational health standards.	Labour inspection reports; employment contracts.	Ministry of Labour
Collective Bargaining Agreement: Agricultural Industry, Agro Sector (S.I. 97 of 2024) (OS2; S5)	Align worker contracts and wages with updated minimum wages and benefits for the agro sector.	NEC compliance records; wage schedules.	Ministry of Labour / NEC Agriculture
National Social Security Authority (Occupational Safety and Health) Policy (OS4; S6)	Prepare safety plans, conduct risk assessments and medical checks and report incidents.	Safety registers; incident reports.	NSSA

Legislation / SI	**Compliance Strategy by the Proponent**	**Permits / Licences / Certificates / Reporting Required**	**Monitoring Agent**
National Social Security Authority (Accident Prevention and Workers' Compensation Scheme) (Prescribed Matters) (Amendment) Notice, 2020 (No. 20) (OS4; S6)	Register all workers, pay contributions, provide accident prevention measures and funeral benefits.	NSSA registration, contribution proof, and accident logs.	NSSA
National Social Security Authority (Accident Prevention and Workers' Compensation Scheme) (Amendment) Notice, 2024 (No. 24) (OS4; S6)	Apply updated premium calculations and update payroll systems accordingly.	NSSA updated declarations and premiums.	NSSA
Pneumoconiosis Act [Chapter 15:08] (OS4; S6)	Minimise dust at construction and desilting sites, provide PPE and medical surveillance for workers exposed to dust.	Medical surveillance records; dust suppression logs.	NSSA / Ministry of Health and Child Care
Zimbabwe Climate Policy (2016) (OS1; S9)	Integrate climate-smart practices, renewable energy and early warning systems into all interventions.	Climate risk screening records.	Ministry of Environment, Climate and Wildlife
National Gender Policy (2013) and National Youth Policy (2020) (OS7andOS10; S4)	Mainstream gender and youth participation in training and governance structures.	Gender/youth participation reports.	Ministry of Women Affairs / Youth Ministry
Effluent and Solid Waste Disposal Regulations, SI 12 of 2007			EMA

Legislation / SI	Compliance Strategy by the Proponent	Permits / Licences / Certificates / Reporting Required	Monitoring Agent
(OS3;S2)			

Table 13: International Frameworks

Instrument / Standard	Compliance Strategy by the Proponent	Permits / Certificates / Reporting Required	Monitoring / Oversight Body
IFAD Social, Environmental and Climate Assessment Procedures (SECAP, 2021)	Undertake screening and categorisation of all subprojects; prepare ESMP and Climate Risk Analysis; integrate gender, labour, pest management and youth measures.	SECAP compliance reports submitted to IFAD; safeguard indicators tracked in supervision missions.	IFAD
African Development Bank Integrated Safeguards System (ISS, 2023)	Align with Operational Safeguards on environmental and social assessment, involuntary resettlement, biodiversity, pollution prevention, labour and working conditions.	Safeguard compliance matrix in project appraisal and progress reports.	AfDB
Paris Agreement (UNFCCC, 2015)	Ensure RACP interventions contribute to Zimbabwe's Nationally Determined Contributions on agriculture and adaptation; monitor greenhouse gas reductions from solar VBUs and reforestation.	National reporting through the Ministry of Environment, Climate and Wildlife.	UNFCCC Secretariat / Ministry of Environment
Sustainable Development Goals (SDGs)	Integrate targets from SDG 2 (Zero Hunger), SDG 6 (Clean Water), SDG 13 (Climate	Alignment reflected in annual reports to	Government of Zimbabwe / UN Agencies

Instrument / Standard	Compliance Strategy by the Proponent	Permits / Certificates / Reporting Required	Monitoring / Oversight Body
	Action) and SDG 15 (Life on Land) into project design and indicators.	the Government and IFAD/AfDB.	
ILO Core Conventions	Uphold minimum labour standards on freedom of association, non-discrimination, no child labour, occupational safety, and fair remuneration across all project works.	Employment contracts, accident registers and training records for audits.	ILO / Ministry of Labour / NSSA
Convention on Biological Diversity (CBD)	Protect critical habitats, avoid the introduction of invasive species, and promote ecosystem restoration within catchments.	Biodiversity screening and monitoring reports.	Ministry of Environment, Climate and Wildlife
UN Sendai Framework for Disaster Risk Reduction (2015–2030)	Integrate early warning systems, flood preparedness and emergency response planning into scheme operation.	Disaster preparedness plans; reports to the Civil Protection Department.	Civil Protection Unit / UNDRR
World Bank/IFC Environmental, Health and Safety Guidelines (Good Practice)	Apply international benchmarks for water quality, waste management, noise, occupational health and safety in the absence of stricter local standards.	Internal compliance audits; inclusion in ESMP monitoring indicators.	PIU / Development Partners
FAO Voluntary Guidelines on the Responsible Governance of Tenure	Ensure transparent and fair land access and compensation for communal land used in scheme expansion.	Land agreements and compensation records.	Ministry of Lands / FAO
International Pest Management and Pesticide Use	Adopt integrated pest management in irrigated areas and handle agrochemicals safely.	IPM plans and pesticide use records.	EMA / Ministry of Agriculture / FAO

Instrument / Standard	Compliance Strategy by the Proponent	Permits / Certificates / Reporting Required	Monitoring / Oversight Body
Guidelines (FAO/WHO)			

Alignment and Gaps between Zimbabwean Legislation and AfDB (OS) and IFAD (S) Standards

Zimbabwe has a robust environmental and social regulatory framework anchored in the Environmental Management Act, labour and occupational safety statutes, public health laws, and local government regulations. However, development partner safeguards such as the AfDB Integrated Safeguards System (OS) and the IFAD SECAP Standards (S) require broader and deeper coverage of social inclusion, climate risk management, labour management, biodiversity protection, gender, community health and safety, and stakeholder engagement. The following section highlights key areas of alignment as well as gaps requiring strengthening for full compliance (Table 14)

Table 14: Comparative Gap Analysis: Zimbabwe Legislation vs AfDB (OS) and IFAD (S)

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
1. Environmental and Social Assessment	The EM Act mandates EIA/ESMP for listed activities, with a strong focus on biophysical impacts and limited mandatory assessment of social issues.	**OS1** requires integrated environmental and social assessment, cumulative impacts, climate risks and analysis of project alternatives.	**S1** requires comprehensive assessment including climate risk, social inclusion, vulnerability screening and sustainability planning.	Limited integration of social impacts, cumulative impacts, climate risk screening and alternative analysis within EM Act EIA processes.
2. Involuntary Resettlement, Land Acquisition and Compensation	Land Acquisition Act provides procedures for acquisition but compensation is inconsistent and livelihood restoration is not a legal requirement.	**OS2** requires avoidance of displacement, full replacement cost compensation, livelihood restoration and long-term monitoring.	**S7** requires equitable land access, FPIC-aligned engagement, livelihood protection and monitoring outcomes.	Livelihood restoration is not mandatory, valuation inconsistent, limited monitoring and weak safeguards for vulnerable households.
3. Biodiversity, Natural Habitats and Ecosystem Services	The EM Act recognises protected areas but does not require critical habitat screening or biodiversity offsets.	**OS3** requires assessment of natural and critical habitats, protection of species, ecosystem services	**S2** requires biodiversity risk screening, ecosystem services valuation and mitigation hierarchy.	No ecosystem services analysis, no offset requirements and limited critical habitat screening under the EM Act.

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
		assessment and biodiversity offsets where necessary.		
4. Pollution Prevention, Hazard Management and GHG Emissions	The EM Act regulates effluent discharge, air pollution and waste management but has limited provisions on GHG accounting and modern hazard planning.	**OS4** requires pollution prevention, hazardous materials management, GHG estimation, emergency preparedness and community safety planning.	**S5** requires hazard reduction, community exposure control, emergency response and climate-related health risk prevention.	No GHG calculations required; weak emergency preparedness obligations; partial hazardous materials guidance.
5. Labour and Working Conditions	Labour Act protects workers and sets OHS requirements but does not mandate project-level LMPs, worker GRMs, or Codes of Conduct.	**OS5** requires Labour Management Plans, worker-specific GRMs, OHS systems, contractor compliance monitoring and protection of vulnerable labour groups.	**S4** requires comprehensive labour management, welfare measures, prevention of labour influx impacts and occupational safety controls.	Labour management, worker GRMs, contractor monitoring and influx management absent in national legislation.
6. Gender Equality and Social Inclusion	Gender Policy encourages gender equity but is not legally binding at project level and	**OS1 and OS2** embed gender equality, inclusion and participation of vulnerable groups in all assessments.	**S3** requires gender analysis, GBV risk assessment and targeted empowerment strategies.	Gender analysis not required under EM Act; no mandatory GBV risk assessment or inclusive

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
	lacks enforcement mechanisms across sectors.			participation requirements.
7. Climate Change Risk, Vulnerability and GHG Management	Climate Policy and NDC exist but climate risk screening is not integrated into statutory EIA processes.	**OS1 and OS4** require climate vulnerability screening, adaptation planning and GHG estimation.	**S9** requires in-depth climate risk analysis, resilience indicators and climate-resilient design.	No integration of climate risk or GHG assessment into EM Act EIA reviews.
8. Community Health, Safety and Security	Public Health Act regulates sanitation and communicable diseases but lacks requirements for project-induced traffic safety, construction health plans or hazardous infrastructure protections.	**OS4** requires traffic safety management, emergency response, hazardous infrastructure mitigation and community protection.	**S5** requires community exposure assessment, communicable disease control, traffic safety and construction site health safeguards.	No statutory requirement for traffic management plans, construction health and safety plans or emergency preparedness.
9. Vulnerable Groups, Social Equity and Inclusion	Constitution protects vulnerable groups but project-level identification and inclusion are not mandatory	**OS1 and OS2** require identification and targeted inclusion of vulnerable or disadvantaged groups.	**S1 and S6** require inclusive processes, culturally appropriate engagement and social equity measures.	Vulnerable groups are not systematically identified or targeted during EIA processes.

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
	parts of the EM Act EIA process.			
10. Indigenous Peoples and Cultural Heritage Protection	National Museums and Monuments Act protects registered sites but does not require chance-find procedures for projects.	**OS1** requires recognition of cultural heritage, mapping and chance-find protocols.	**S3** requires cultural heritage screening, consultation with custodians and chance-find procedures.	Absence of mandatory chance-find protocols under EM Act.
11. Stakeholder Engagement and Disclosure	The EM Act requires consultation at screening and review but does not require continuous engagement or project-level GRMs.	**OS1** requires ongoing engagement, documentation, disclosure and dedicated grievance mechanisms.	**S6** requires meaningful, inclusive, ongoing engagement and multi-channel GRMs.	No legal basis for ongoing engagement, multi-stage disclosure or formal GRMs.
12. Financial Intermediary Requirements	Zimbabwe's finance regulations do not require banks or cooperatives to conduct E and S risk screening.	**OS10** requires financial intermediaries to adopt E and S risk frameworks.	**S1 and S6** expect institutional strengthening for oversight and risk management.	No E&S rik management obligations for financial intermediaries.

Conclusion and Recommendations

While Zimbabwe's legislative framework provides strong environmental protection foundations, it does not fully match the depth, breadth and operational requirements of AfDB (OS) and IFAD (S) standards. Variations can be addressed through administrative updates to national EIA guidelines, strengthening institutional capacity within EMA and sector ministries, creating mandatory project-level labour and community health frameworks, integrating climate risk screening into ESIA processes, and supporting local authorities and IMCs with training in stakeholder engagement, GRM operation, gender integration and biodiversity safeguards. In the long term, targeted legislative and regulatory reforms combined with capacity building will bring national systems closer to international best practice and ensure consistent compliance across all development projects.

4.0 Baseline Environmental and Social Setting

This chapter outlines the baseline environmental and social conditions across RACP target areas. It offers a comprehensive overview of the existing physical, biological, and socio-economic landscape, serving as a foundation for impact assessment and the formulation of appropriate mitigation strategies. Key attributes covered in each section include topography, climate, hydrology, biodiversity, and social dynamics relevant to the province and project districts. Establishing these baselines ensures that all aspects of project planning, implementation, and monitoring are informed by accurate, context-specific data, in full compliance with national regulatory frameworks and international safeguard standards.

4.1 Biophysical Environment

4.1.1 Topography

The project intervention areas within the Midlands Province are characterised by a gently undulating to rolling topography, with slopes typically ranging between 3% and 7% across most irrigation sites. This landscape is typical of Zimbabwe's central plateau and lies largely within Agro-Ecological Regions III and IV, which receive mean annual rainfall ranging from 550 mm to 750 mm. These moderate slopes are generally well-suited for irrigation development and allow for relatively straightforward infrastructure design. However, they also pose specific environmental risks such as surface runoff, soil erosion, and localised waterlogging if not carefully managed. The transition to efficient irrigation technologies such as centre pivots and improved drainage systems is a key design response to these risks, promoting uniform water application and minimising soil degradation.

Kwekwe District

Kwekwe District exhibits a diverse topographic profile influenced by the undulating central watershed plateau. The landscape consists of gently rolling plains interspersed with slightly elevated ridges and low-lying river valleys associated with the Sebakwe and Gweru catchments. Slopes are generally between 3% and 7%, creating suitable conditions for surface and sprinkler irrigation. The moderately sloping terrain enhances water drainage and supports mechanised agricultural operations, but poor management can result in significant soil erosion and gully formation, especially in areas with bare soils or degraded vegetation. Irrigation development must therefore incorporate appropriate land levelling, erosion control structures, and vegetative buffer strips to maintain soil stability.

Chirumhanzu District

Chirumhanzu District is characterised by a landscape that transitions from gently rolling uplands in the north to broader, more subdued plains in the south. The topography is dissected by several rivers and seasonal streams, forming shallow valleys that provide natural drainage and opportunities for gravity-fed irrigation in certain areas. Slopes typically range between 2% and 6%, which is optimal for irrigation development but requires careful planning to avoid uneven water distribution and soil erosion on steeper sections. The district's topography also influences soil type and fertility, with colluvial soils accumulating in valley bottoms and supporting intensive cropping. Proper contouring, drainage channel design, and vegetative stabilisation measures will be essential to maintain irrigation efficiency and minimise topography-related risks.

Regional Implications for Irrigation Development

Across the Midlands Province, the combination of gently rolling landforms, dissected river valleys, and moderate slopes provides favourable physical conditions for irrigation expansion and intensification. However, the same features present potential challenges that require proactive mitigation, including erosion control, slope stabilisation, and water management interventions. Incorporating topography-sensitive design features such as contour bunding, graded waterways, and strategically placed drainage systems will enhance irrigation efficiency and reduce environmental impacts. Moreover, adopting technologies tailored to slope conditions, such as centre pivot or low-pressure sprinkler systems, will help optimise water distribution while protecting soil structure and fertility.

4.1.2 Climate

This section outlines the prevailing climatic conditions across the RACP. Target areas. It provides an overview of rainfall patterns, temperature regimes, seasonality, and the frequency of extreme weather events, highlighting differences between the semi-arid lowlands and the more humid Highveld zones as presented in Figure 4 and Figure 5.

Kwekwe District (Sanyati Cathment)

The Midlands lies predominantly within Natural Region III, characterised by a semi-humid subtropical climate with a single rainy season spanning November to March. Average annual rainfall ranges between 650 mm and 800 mm, although inter-annual variability is common, with periodic droughts and dry spells occurring once every three to five years. Rainfall distribution tends to be uneven, often concentrated in intense downpours that increase the risk

of soil erosion, siltation of canals, and flash flooding in low-lying areas. Dry spells during mid-season can significantly affect crop growth, underscoring the need for reliable supplementary irrigation and water storage infrastructure.

Temperatures are moderate to warm throughout the year, with mean daily highs ranging from 26°C to 30°C during the summer months (October to March) and cooler winter conditions averaging 12°C to 18°C between May and August. Evapotranspiration rates are relatively high, particularly during the peak summer months, which increases water demand for irrigation and necessitates efficient water application methods such as centre pivots or drip systems. Climate change is manifesting through increased temperature extremes and a rising frequency of heatwaves, which threaten water availability and agricultural productivity. Periodic thunderstorms, hail events, and strong winds are also reported, requiring resilient infrastructure design and appropriate shelterbelt planting.

Temperatures are generally high, with mean maximums ranging from 28°C to 32°C during the hot season (October to March) and minimums averaging 10°C to 15°C during the cooler months (June to August). High evaporation losses, averaging 1,800 to 2,000 mm annually, exacerbate water scarcity and increase irrigation water requirements. Extreme weather events such as prolonged dry periods, heatwaves, and occasional strong storms are becoming more frequent, reflecting broader climatic shifts. These conditions necessitate the incorporation of adaptive measures such as water harvesting structures, efficient irrigation technologies, mulching, and drought-tolerant crop varieties.

The climatic conditions are both opportunities and constraints for irrigation agriculture. The seasonal rainfall provides a foundation for water harvesting and groundwater recharge, while moderate temperatures support a wide range of crop options. However, variability in rainfall distribution, increasing evapotranspiration, and the occurrence of extreme events highlight the need for climate-smart design approaches. Integrating early warning systems, water storage facilities, efficient irrigation technologies, and adaptive crop management strategies will be crucial to enhancing the resilience and long-term sustainability of irrigation schemes under the RACP.

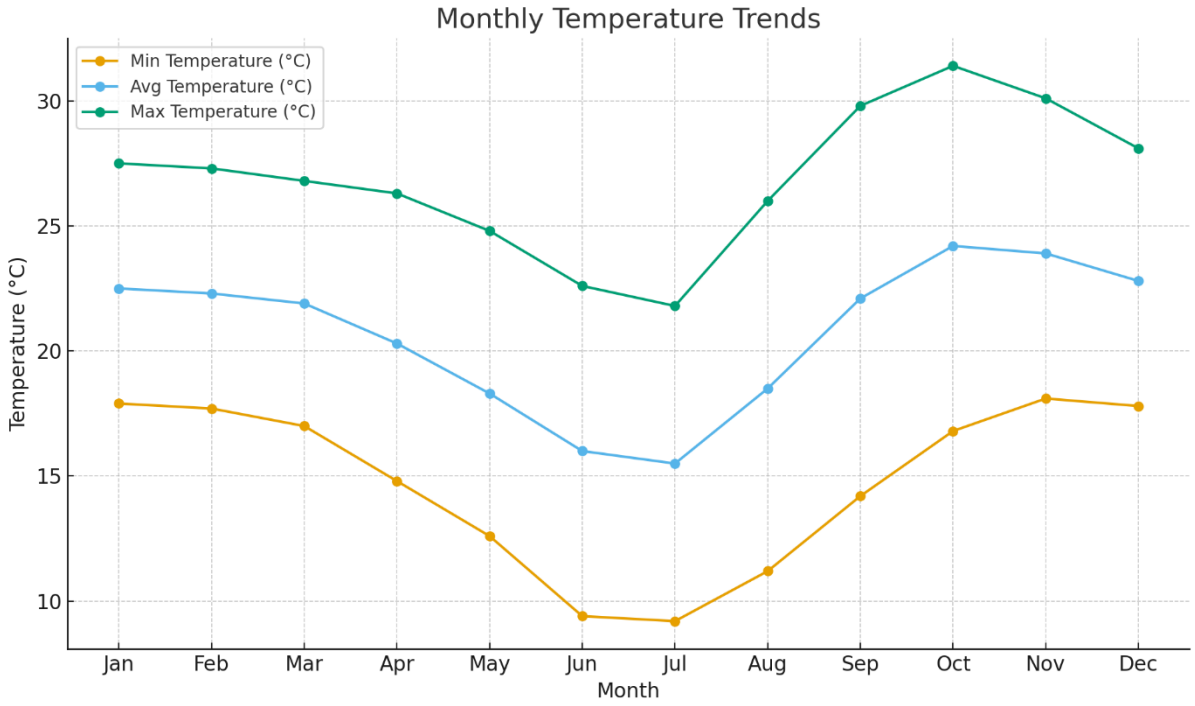


Figure 4: Midlands Temperature Data (Climate-data, 2025).

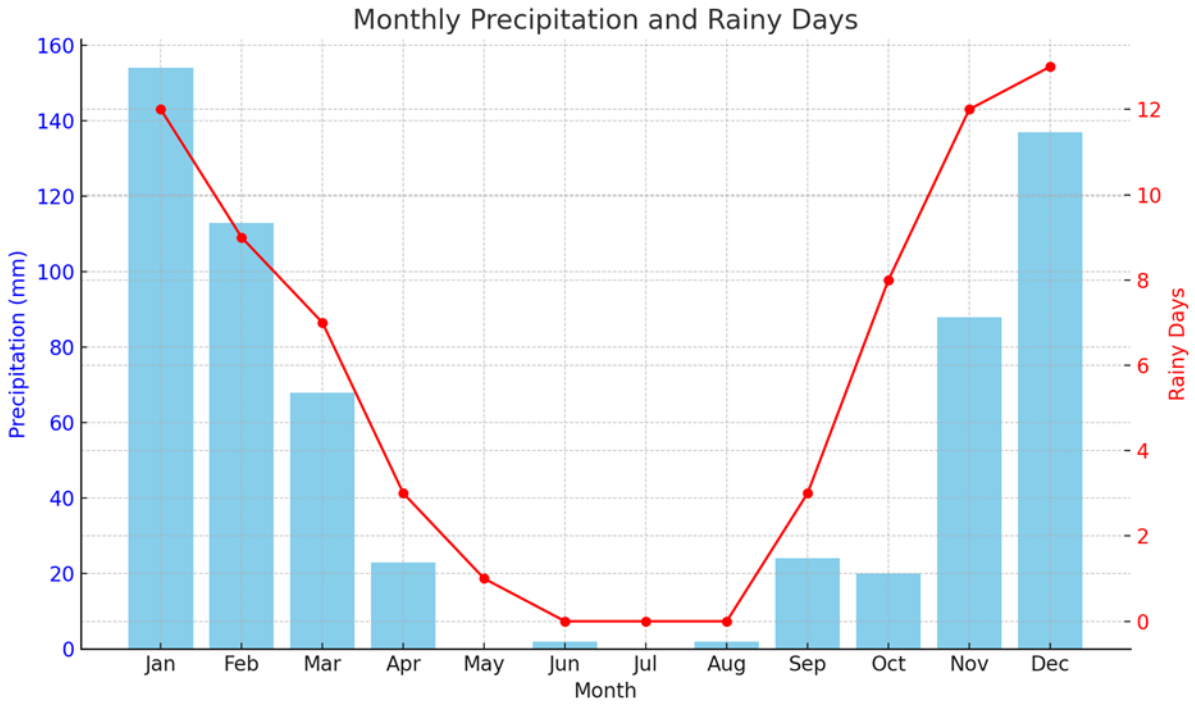


Figure 5: Midlands Precipitation (Climate-data, 2025).

CLIMATE RISKS

Using IFAD's SECAP Standard 9 framework, which evaluates four fundamental components: climate hazards, exposure, sensitivity, and adaptation capacity, this section analyses climate-related risks for the RACP in the Midlands. The findings assist the creation of focused adaptation methods and help classify project activities and geographic areas into various risk categories (low, moderate, considerable, or high). Climate variability and change pose significant risks to the long-term sustainability, productivity, and resilience of irrigation schemes in the Midlands Province. These risks are shaped by shifts in rainfall patterns, rising temperatures, increased evapotranspiration, and the frequency and intensity of extreme weather events. Understanding and addressing these risks is essential to ensure that RACP interventions remain effective under current and future climatic conditions. The following key climate-related risks have been identified for Kwekwe and Chirumhanzu districts and their surrounding catchments.

Kwekwe (Sanyati Catchment)

Hazards

- Mid-Season Droughts: Prolonged dry spells affecting critical crop growth periods.
- Extreme Heat: High temperatures during flowering phases can decrease crop yields.
- Intense Rainfall: Heavy rains increase the risk of soil erosion and flooding.

Exposure

- Topography: Smallholder plots on sloped land make them vulnerable to erosion.
- Irrigation Infrastructure: Existing irrigation systems may need upgrades for better efficiency.

Sensitivity

- Crops Affected: High sensitivity for rain-fed maize and vegetables.
- Adaptive Capacity
- Water Storage: Limited capacity for water storage increases vulnerability.
- Institutional Support: Moderate capacity may hinder effective adaptive measures.

Risk Classification

- Overall Risk: Substantial risk without additional interventions.

Chirumhanzi

Hazards

Mid-Season Droughts: Extended dry periods that negatively impact crop growth.

Extreme Heat: High temperatures during key growth stages can reduce yields.

Intense Rainfall: Heavy rainfall events can lead to soil erosion and gully formation.

Exposure

- Topography: Vulnerability due to smallholder plots located on slopes.
- Irrigation Infrastructure: Need for improvements in existing irrigation systems to enhance efficiency**.**

Sensitivity

- Crops Affected: High sensitivity for rain-fed maize and vegetables, reliant on consistent rainfall.

Adaptive Capacity

- Limited water storage options increase susceptibility to drought.
- Moderate capacity may limit the effectiveness of adaptive strategies.

Risk Classification

- **Substantial risk without additional interventions**

To enhance agricultural resilience in Kwekwe and Chirimhanzi, potential interventions include upgrading irrigation systems for improved water management, adopting soil conservation techniques to prevent erosion, and introducing heat- and drought-resistant crop varieties. Additionally, implementing rainwater-harvesting initiatives will improve community water access, while fostering local institutions will strengthen support for sustainable agricultural practices**.**

4.1.3 Soils

This section describes the prevailing soil conditions within the Resilience Agriculture Cluster Project (RACP) target areas. It provides a detailed understanding of soil types, textures, fertility status, drainage and vulnerability to erosion or salinisation across Midlands province and the 2 districts earmarked for intervention. This baseline information is critical for selecting

appropriate irrigation technologies, crops, and management practices, as well as for designing measures to prevent soil degradation and protect water quality. By establishing a clear soil profile for each district and scheme, the project can tailor its interventions to maximise productivity and sustainability while meeting national and international safeguard standards.

Kwekwe District (Sessombe, Senkwasi, Igogo, Wozoli, Milsonia Schemes)

Kwekwe sits on granitic and gneissic parent materials with local greenstone belts. The dominant soils are sandy loams to sandy clay loams on gently undulating uplands and footslopes, grading to heavier clay loams and clays in valley bottoms and along alluvial terraces. Topsoils are generally light textured with moderate organic matter where grazing pressure and cultivation have been controlled, but many fields show declining organic carbon due to continuous tillage. Natural fertility is low to moderate with responsive behaviour to nitrogen and phosphorus. Micronutrient deficiencies of zinc and boron are locally reported on coarse-textured sites.

Drainage is moderate on uplands and slow to imperfect in lower positions, where seasonal waterlogging can occur after heavy storms. Infiltration is high on coarse-textured uplands, which favours sprinkler and centre pivot systems, but can reduce water use efficiency without scheduling. Erosion risk is moderate to high on exposed slopes with shallow A horizon, especially where rills and incipient gullies are present near field boundaries and feeder roads. Salinity risk is generally low, except in small depressions with impeded drainage, where salts may accumulate after dry seasons.

Management implications include minimum tillage, residue retention and cover cropping to rebuild organic matter. Contour-aligned field layouts, grassed waterways and stone or brush checks are recommended for slope stabilisation. On lower foot slopes and alluvial clays, subsurface cut-off drains or raised beds reduce waterlogging. Fertility management should combine basal compound fertilisers with site-specific liming where soil reaction is below optimal. Sprinkler and centre pivot systems are preferred on uplands, while short furrows or gated pipes are acceptable on heavier soils with proper levelling and drainage.

Chirumhanzu District

Chirumhanzu presents a mosaic of soils derived from granite and dolerite with local sedimentary inclusions. Uplands carry shallow to moderately deep sandy loams and sandy clay loams that are weakly structured and prone to crusting. Mid slopes and gentle foot slopes hold

deeper sandy clay loams of moderate fertility and good plant available water. Valley bottoms and dambos contain heavier clay loams to clays with mottling that indicates seasonal saturation.

Fertility is generally moderate but variable. Coarse uplands benefit from organic amendments, green manures and split nitrogen applications to reduce leaching. Phosphorus fixation is moderate, and placement near the root zone improves use efficiency. Where doleritic materials occur, base saturation tends to be higher and potassium demand lower. Soil reaction is mostly slightly acidic, with isolated patches requiring lime to optimise nutrient availability.

Drainage is good on upper slopes but slow in valley bottoms where perched water tables develop in the wet season. Erosion hazard is significant on cultivated mid slopes with continuous maize or small grains, particularly where tracks concentrate runoff. Gully initiation along field edges and stock paths is a recurring issue. Salinity hazard is low, though sodicity can appear in small patches of heavy clay with prolonged stagnation.

Management implications include conservation agriculture with permanent cover, controlled traffic, and reduced disturbance. On mid slopes, contour bunds, tied ridges and grass filter strips reduce runoff and sediment delivery to canals. In valleys, surface drains and shallow subsurface laterals help remove excess water from heavy clays. Sprinkler systems are suited to the sandy to sandy clay loams, while carefully graded surface irrigation can perform on heavier clays if fields are laser levelled and drains are installed. Nutrient plans should emphasise organic inputs, split nitrogen, and strategic liming.

Soils on upper watersheds are thin and erosion sensitive, contributing sediment to canals and storage structures when bare. Maintaining riparian buffers, regulating streambank cultivation and establishing vetiver or indigenous grass strips on contour will reduce sediment loads. Where construction generates spoil or exposes subsoils, rapid revegetation and topsoil replacement are required to prevent crusting and rilling. Routine monitoring of soil salinity and sodicity is advised in low-lying fields with slow drainage to safeguard long-term irrigation performance.

4.1.4 Catchment, Hydrology and Water Resources

RACP operates across principal catchments: Gwayi, Sanyati, Mazowe, and Manyame, each defined by unique drainage systems, surface and groundwater dynamics, and exposure to climate-related risks. This report specifically concentrates on the Sanyati Catchment. Rivers within these basins exhibit pronounced seasonality, with peak flows occurring during the rainy months of November through April, followed by significant reductions to isolated pools or dry

channels during the winter season. To ensure a reliable irrigation supply under these fluctuating conditions, infrastructure such as small dams, night-storage reservoirs, and weirs plays a vital buffering role. A thorough understanding of these catchments is crucial for evaluating water availability and identifying vulnerabilities to droughts, flooding, and long-term climatic variability.

Kwekwe District (Sebakwe and Gweru Sub-Catchments): The Sebakwe catchment drains large portions of Kwekwe District, characterised by moderate to high drainage density and perennial headwater streams that feed into the Sebakwe and Gweru rivers. Irrigation schemes in this area often rely on a combination of small storage dams, weirs, and boreholes. Examples include schemes near Exchange, Wozoli, and Sessombe, which depend on perennial and seasonal tributaries that require regular desilting and spillway maintenance to ensure reliability. Catchment degradation from deforestation and artisanal mining has increased erosion and sedimentation risks, reducing reservoir capacity and water quality. Soil erosion from steep cultivated slopes and unprotected streambanks contributes to siltation of canals and night-storage reservoirs, while poor land-use practices in upstream communal areas exacerbate sediment loads during storm events.

Chirumhanzu District (Lower Vungu and Tributary Sub-Catchments): Chirumhanzu lies within the Lower Vungu and Gweru catchment zones, where seasonal rivers and ephemeral streams dominate the hydrology. These watercourses are characterised by moderate baseflows in the rainy season but become intermittent during dry months, necessitating water storage interventions such as weirs, small earth dams, and groundwater abstraction. The Irrigation scheme draws from surface water sources supplemented by boreholes. However, reduced recharge due to vegetation loss, catchment degradation, and erratic rainfall patterns threatens long-term water security. Flood events, although less frequent, can cause significant infrastructure damage and waterlogging, particularly in low-lying irrigation blocks with poor drainage.

Hydrological Characteristics and Risks

- **Surface Water:** The region is served by numerous small to medium perennial rivers with high seasonality. Water availability is closely tied to rainfall distribution and catchment conditions. Many schemes rely on small dams and weirs vulnerable to sedimentation and siltation.

- **Groundwater:** Yields are generally moderate to high in fractured aquifers, but recharge is sensitive to land-use changes and prolonged dry periods. Over-abstraction can lead to declining water tables and reduced borehole reliability.
- **Drainage Patterns:** Dendritic and sub-parallel drainage dominate, with steep headwater streams prone to flash flooding during intense rainfall events. These require protective engineering interventions such as gabions, check dams, and reinforced spillways.
- **Cross-cutting Risks Across Catchments**
- **Erratic Rainfall:** Variability in rainfall onset, duration, and intensity affects river flow reliability and storage capacity, reducing irrigation water availability.
- **Erosion and Sedimentation:** Deforestation, streambank cultivation, and poor land management accelerate soil loss, leading to siltation of reservoirs, canals, and water intake points.
- **Flooding:** Short-duration, high-intensity storms trigger flash floods that damage infrastructure, wash away topsoil, and increase sediment transport into irrigation systems.
- **Groundwater Stress:** Increasing irrigation demand and limited recharge due to vegetation loss and changing rainfall patterns risk reducing groundwater availability.
- **Water Quality Degradation:** Artisanal mining and agricultural runoff introduce sediments and contaminants into rivers and dams, affecting irrigation water quality and downstream ecosystems.

Cross-Cutting Risks across Catchments

- **Drought:** Periodic droughts reduce surface water availability and groundwater recharge, threatening the sustainability of irrigation systems.
- **Sedimentation:** A universal threat to small dams, weirs, and night-storage reservoirs, sedimentation reduces storage capacity and operational life.
- **Waterlogging and Salinity:** Localised risks occur in poorly drained irrigation blocks, especially in heavy clay soils and low-lying areas.

- **Infrastructure Vulnerability:** Unprotected diversion weirs, inadequate spillways, and poorly maintained canal systems are highly susceptible to damage from extreme weather events.

4.1.5 Biodiversity and Sensitive Habitats

The Midlands Province, encompassing the Sebakwe, Gweru, and Lower Vungu catchments, lies within a diverse ecological transition zone where central plateau grasslands intersect with riparian woodlands, dambos, and patches of miombo savanna. This mosaic of ecosystems underpins significant biodiversity, supports vital ecological processes, and delivers a range of ecosystem services critical to smallholder livelihoods, agriculture, and water security.

Plate 6: General Vegetation Site during Biophysical Assessment

The RACP's irrigation interventions in Kwekwe and Chirumhanzu districts intersect with these biodiversity values, necessitating careful planning and management to avoid degradation of sensitive habitats and to align with the Environmental Management Act [Chapter 20:27], IFAD's SECAP, and the AfDB ISS requirements.

Flora and Vegetation Communities

The project area is dominated by mixed miombo woodland, comprising species such as *Brachystegia spiciformis*, *Julbernardia globiflora*, and *Combretum molle*, which occur on upland and moderately drained slopes. These woodlands provide critical ecosystem functions, including soil stabilisation, microclimate regulation, carbon sequestration, and non-timber forest products (NTFPs) such as firewood, fruits, and medicinal plants. Riparian and wetland zones along the Sebakwe, Vungu, and Gweru rivers host more moisture-loving species, including *Syzygium guineense*, *Acacia sieberiana*, *Ficus spp.*, and *Trichilia emetica*, which stabilise riverbanks, improve water infiltration, and enhance aquatic biodiversity. Plate 7 shows

some of the tree species found in the Kwekwe district, where Sessombe, Senkwasi, Wozoli, Igogo and Milsonia Irrigatio schemes.

Plate 7: Vegetation Found in Kwekwe District during Site Visit

Grassland habitats, composed predominantly of species such as *Themeda triandra*, *Hyparrhenia filipendula*, and *Andropogon gayanus*, are widespread across gently undulating areas and provide essential grazing for livestock while supporting ground-dwelling bird species and pollinators. In certain dambos and seasonally waterlogged depressions, hydrophilic vegetation such as *Cyperus spp.*, *Phragmites mauritianus*, and *Typha capensis* occurs, forming important breeding grounds for amphibians, birds, and aquatic insects.

Fauna and Wildlife Corridors

Although much of the project landscape is modified for agriculture and settlement, it still supports a range of faunal species. Mammalian fauna includes small to medium-sized species such as duikers (*Sylvicapra grimmia*), bushbuck (*Tragelaphus scriptus*), mongoose, and occasionally jackals (*Canis mesomelas*). Larger mammals such as antelopes and warthogs (*Phacochoerus africanus*) occur more frequently in communal rangelands and near protected areas. Avifaunal diversity is high, with the Sebakwe and Gweru river corridors acting as migration and nesting sites for waterfowl, raptors, and wetland birds, including *Ardea cinerea*, *Alopochen aegyptiaca*, and *Haliaeetus vocifer*. Amphibians and reptiles, including frogs, skinks, and monitor lizards, are common in riparian and dambo habitats, while diverse invertebrate populations play key roles in pollination and soil health.

Importantly, the project area is part of broader ecological connectivity networks that link riverine habitats, wetlands, and remaining woodland fragments. These natural corridors facilitate wildlife movement, genetic exchange, and ecosystem resilience, particularly in landscapes under increasing human pressure.

Several sensitive habitats exist within or near the RACP intervention areas:

- **Riparian Zones and Wetlands:** Riverbanks, dambos, and floodplain areas along the Sebakwe, Gweru, and Lower Vungu rivers are highly sensitive to disturbance. They regulate hydrological flows, support biodiversity, and serve as buffer zones filtering sediments and pollutants. Any encroachment or alteration in these zones can lead to severe ecological impacts, including reduced water quality, increased erosion, and loss of aquatic habitat.
- **Headwater Catchments and springs:** Upland springs and seepage areas act as critical recharge zones and biodiversity refuges. Disturbance through cultivation, overgrazing, or infrastructure construction can reduce their water retention capacity and biodiversity value.
- **Dambo Ecosystems:** Seasonally saturated wetlands scattered across the project area support unique vegetation and are essential breeding grounds for amphibians and birds. They are particularly vulnerable to drainage, over-abstraction, and trampling by livestock.

- **Woodland Fragments:** Remaining miombo woodlands provide ecosystem services and act as carbon sinks. Their fragmentation through land clearing or firewood collection undermines ecological integrity and reduces resilience to climate change.

The main threats to biodiversity and sensitive habitats in the project area include:

- **Land Conversion and Habitat Loss:** Expansion of cultivation and settlements leads to the clearing of woodlands and encroachment into riparian and wetland zones.
- **Overgrazing:** Livestock pressure near water points and wetlands leads to vegetation loss, soil compaction, and reduced water infiltration.
- **Unsustainable Resource Extraction:** Firewood collection, charcoal production, and unsustainable harvesting of NTFPs degrade woodland habitats.
- **Catchment Degradation:** Streambank cultivation, deforestation, and artisanal mining increase sedimentation, reduce water quality, and destabilise aquatic ecosystems.
- **Invasive Species:** Proliferation of invasive alien plants such as *Lantana camara* and *Chromolaena odorata* displaces native flora and alters habitat structure.

Plate 8: Dry Combretum Tree Species Forest from One of the Scheme Locations

The list of tree and shrub species within the districts is given in Plate 9.

Plate 9: Leonotis spp. Observed in the Kwekwe District

Summary

In the Midlands region of the RACP provinces, biodiversity is characterised by a diverse landscape that includes mopane and acacia woodlands in the west, transitioning to rich miombo mosaics and wetlands in the east. Dominant plant species such as mopane, Faidherbia, Brachystegia, and Combretum form the foundation of this ecosystem. The region supports large mammals like elephants, buffalo, and various antelope species, especially near protected areas. Additionally, it boasts a high diversity of birds, amphibians, pollinators, and indigenous fish thriving in riparian and wetland habitats. This biodiversity baseline is crucial for impact assessments and the formulation of mitigation measures, such as establishing buffer zones, restoring catchments, implementing integrated pest management, and promoting sustainable water use all aimed at protecting these vital ecological assets while enhancing local livelihoods.

4.1.6 Social Environment:

The Social Environment baseline gives clear explanations of demographics, livelihoods, gender/youth dynamics, poverty and vulnerable groups, and the concrete statistics from the ward populations, household incomes, and scheme beneficiaries. Midlands Province, located at the heart of Zimbabwe, has a strategic central position that has enabled a diverse economic base built on agriculture, mining, manufacturing, and trade. Agriculture remains the primary livelihood source, with most rural households relying on mixed crop-livestock systems

producing maize, small grains, horticulture, and livestock. However, productivity is constrained by variable rainfall, small farm sizes, poor infrastructure, and limited access to inputs and markets. Mining plays a major role, with chrome, gold, coal, and iron ore deposits underpinning the provincial economy. Industrial hubs around Kwekwe and Chirumanzi support ferrochrome smelting, steel production, and chemical manufacturing, providing employment and economic linkages. Despite this diversity, significant portions of the rural population face poverty, food insecurity, and underemployment. Access to quality health, education, water, and sanitation services remains uneven, particularly in remote areas, while climate change impacts, including recurrent droughts and rainfall variability, continue to erode rural livelihoods.

Kwekwe District- Social Economic Baseline

Kwekwe District features a mixed urban-rural economy and is one of Zimbabwe's key industrial and mining centres. The district's rural population relies heavily on subsistence farming, predominantly maize, groundnuts, and horticultural crops, alongside small livestock rearing (see Plate 10).

Plate 10: Some of the Farming Activities Seen in the District during the Site Visit

Rainfall ranges from 450 to 750 mm annually, placing most areas in agro-ecological region IV for the targeted irrigation schemes. Mining, particularly small-scale gold and chrome extraction, provides supplementary income but also contributes to land degradation and water quality challenges. Kwekwe town and Redcliff serve as manufacturing and commercial hubs, hosting steelworks, chemical plants, and ferrochrome smelters that offer employment beyond agriculture. However, the area continues to face infrastructure deficits, including poor road networks, limited access to clean water and electricity, fencing (Plate 11) and under-resourced health and education facilities. Land-use conflicts, particularly between farming and mining,

are common, while environmental degradation from artisanal mining and deforestation poses additional risks to livelihoods and water resources.

Plate 11: Pictures Taken During Site Visit.

Kwekwe District comprises a blend of urban, peri-urban, and rural communities whose livelihoods reflect the district's mixed economy of agriculture, industry, and mining. The district is characterised by a youthful population structure similar to other central provinces, with a significant proportion of residents under 30 who supply labour to both farming and mining activities. Rural settlement patterns include long-established communal areas, newer resettlement zones, and pockets of commercial farmland, resulting in varied land-tenure arrangements and differing levels of security of tenure. As in comparable districts, the absence of formal title deeds in communal and A1 resettlement areas contributes to land-use disputes, occasional plot boundary conflicts, and vulnerability to encroachment by artisanal miners.

Agriculture remains the main livelihood for rural households, with maize, groundnuts, horticulture, and small livestock being the dominant commodities. Irrigation schemes such as Igogo, Wozoli, Sessombi, and Milsonia are particularly important for stabilizing food production under increasingly variable rainfall patterns. Livelihood diversification is common: residents engage in vegetable selling, artisanal metalwork, milling, small-scale trading, and cross-border commerce, mirroring the growth of the informal sector seen in other districts. Mining especially small-scale gold and chrome extraction offers supplementary income but also competes with agriculture for land and creates environmental hazards affecting water quality and soil productivity.

Access to essential services varies widely across the district. Health facilities provide basic services, yet many rural communities still travel long distances for maternal and child healthcare, HIV services, or emergency treatment. Similarly, access to clean water and sanitation remains limited in several wards, contributing to recurrent public health challenges.

Education facilities include a network of primary and secondary schools, though rural schools frequently face shortages of trained teachers, overcrowding, and infrastructure gaps that affect attendance and learning outcomes particularly for girls, who often shoulder household responsibilities.

Infrastructure development is uneven. Kwekwe town and Redcliff benefit from stronger road networks, commercial services, and communication infrastructure, while many rural areas experience poor roads, unreliable electricity, weak mobile network reception, and inadequate irrigation fencing. Local trading centres such as Silobela, Zhombe, and Crossroads serve as important market nodes, yet farmers still contend with high transport costs and limited access to formal marketing channels. These constraints, combined with rising agricultural costs and erratic climate conditions, reduce household resilience.

Social issues such as poverty, unemployment, and substance abuse affect many young people in Kwekwe. Community cooperatives, farmer groups, women's clubs, and local savings schemes help mitigate vulnerability by promoting mutual support and shared investment. Women play a central role in agricultural production and informal business activities, yet continue to face gender-specific barriers in accessing credit, formal markets, and leadership roles within irrigation management structures. In this context, functional irrigation infrastructure emerges as a key resilience mechanism capable of improving food security, stabilising incomes, and reducing the socio-economic stresses faced by households across the district.

Health

Across the five schemes, health conditions reflect longstanding challenges with safe water access, sanitation, and exposure to environmental risks. At Igogo, the only potable water point is an old borehole producing rusty water, and farmers lack adequate ablution facilities, walking long distances to reach the existing two Blair toilets. Wozoli has functional BVIP toilets but only one potable tap serving multiple blocks, limiting hygiene standards during peak farming periods. Sessombi has no sanitation infrastructure, and farmers rely on a community borehole located outside the irrigation area. At Milsonia, the absence of functional water storage and operational infrastructure has resulted in stagnant water in old canals and gullies, increasing mosquito-breeding risk. Common to all schemes is high physical workload, exposure to sun and heat, and limited personal protective equipment during irrigation maintenance.

Safety

Safety risks primarily arise from aged, malfunctioning, or absent irrigation infrastructure. At Igogo, both pumps are broken and the pumphouse is located in a flood-prone undercut section of the river, posing high risks of collapse and injury. Wozoli's worn-out canal, damaged tanks, and inadequate infield roads heighten fall and injury risks, especially during input and harvest movement. Milsonia's long-abandoned system includes unstable structures (old NSD embankments, cracked canals) that pose safety hazards. Sessombi's non-functional boreholes and collapsed tank structures remain unsecured. Across all schemes, poor drainage leads to slippery surfaces, erosion channels, and uncontrolled water flows, increasing risks for women, elderly farmers, and youth.

Security

Security concerns are centred on vandalism, theft of equipment, and remoteness of abstraction points. Igogo's 315 kVA transformer has a history of vandalism, prompting RPA recommendations for palisade fencing and on-site security presence. Wozoli's river abstraction point is 4 km away and unsupervised, exposing pumps to theft or tampering. Milsonia, being non-operational for decades, has a record of asset removal by previous operators and lacks community oversight. Sessombi is dispersed across former resettlement land with poor road access, making monitoring of assets difficult. For all sites, women expressed concerns about early-morning or late-evening movement to fields or water points due to isolated surroundings.

Gender

Across all Kwekwe schemes, women form a significant proportion of irrigators but face heavier labour demands because of insufficient mechanisation and unreliable water systems. In Igogo and Wozoli, women disproportionately handle connecting hoses, dragging equipment, and maintaining small canals—tasks physically demanding under current dilapidated systems. During pump breakdowns or water shortages, women walk long distances to alternative water sources for household use, adding to their care burden. Youth members benefit from dedicated allocations in Wozoli's drag-hose system, but limited access to capital and decision-making bodies restrict broader youth participation. Decision spaces such as IMCs remain male-dominated, though women actively participate in daily scheme operations.

Cultural

The irrigation schemes operate within communities with strong communal land traditions, local leadership authority, and long-established norms around land allocation and conflict management. At Igogo and Wozoli, farmers rely on local village heads and councillors to mediate disputes, including plot boundary conflicts and water distribution disagreements. In Sessombi (old resettlement), diverse household origins mean varying farming cultures and expectations, requiring consensus-building before rehabilitation. Milsonia's history as a commercial farm turned resettlement area influences community perceptions of land rights, shared responsibilities, and willingness to contribute labour. Cultural obligations such as funerals, religious gatherings, and collective field days' influence labour availability, particularly for women who bear greater social duty workloads.

Chirumhanzu District– Socio-Economic Baseline

Chirumhanzu is predominantly rural, with livelihoods centred on rain-fed agriculture and small livestock production. Population growth has been steady, and settlement remains dispersed, contributing to challenges in service delivery. Most households grow maize, sorghum, groundnuts, and horticultural crops for subsistence, but productivity is limited by low soil fertility, poor access to inputs, and climate variability. Small-scale mining, particularly of chrome, supplements household incomes but contributes to environmental degradation. The district faces high unemployment, especially among youth, and women remain disadvantaged in access to land, credit, and extension services. Infrastructure constraints including inadequate road networks, poor market access, limited storage facilities, and insufficient water and sanitation services, hinder agricultural development and value addition. Strengthening irrigation infrastructure, improving market linkages, and expanding off-farm livelihood opportunities are critical priorities for enhancing household resilience and socio-economic development.

This socio-economic profile underscores the importance of climate-smart irrigation, catchment rehabilitation, and value-chain development interventions under the RACP, which aim to diversify livelihoods, build resilience, and reduce poverty across Midlands Province.

Chirumhanzu District -Health

Chirumhanzu District has a population estimated at approximately 150,000 (2022 census), with a balanced gender distribution. The district faces significant challenges related to chronic undernutrition, particularly among children, as national statistics indicate that around 24% of children under five are stunted. Given the prevalence of food insecurity and limited dietary diversity in rural areas, Chirumhanzu is likely experiencing similar or heightened rates of malnutrition. In terms of HIV prevalence, the broader Midlands province reports around 13%, and due to Chirumhanzu's mining activities and high mobility, the district may have comparable or slightly elevated adult HIV burdens.

Water-borne diseases also pose serious public health challenges in Chirumhanzu, as recent cholera outbreaks have highlighted the risks associated with poor sanitation and contaminated water sources. Access to improved sanitation facilities in many areas remains under 60%, significantly increasing the risk of diarrheal diseases within the population. Additionally, malaria outbreaks have been associated with irrigation schemes, where stagnant water can create breeding grounds for vectors. For effective RACP planning in Chirumhanzu, it is crucial to prioritise nutritional support for children and pregnant women to address undernutrition, implement HIV/STD awareness programs aimed at mobile workers, and strengthen Water, Sanitation, and Hygiene (WASH) initiatives to ensure access to clean water and improved sanitation. Furthermore, robust vector control strategies are essential to mitigate malaria risks linked to standing water.

Chirumhanzu District Safety

Safety risks arise from steep topography in some wards, erosion channels near gardens, and inadequate protective equipment for land preparation or irrigation system maintenance. Livestock intrusion and poor fencing increase risks of injuries to children and women working near canals or storage ponds. Poorly maintained rural roads also affect emergency response and safe movement of farmers.

Chirumhanzu District Cultural

Chirumanzu communities maintain strong chieftainship structures, with land and water decisions influenced by traditional leadership. Cultural norms emphasise collective work (nhimbe), respect for elders, and seasonal rituals tied to rainmaking and agricultural cycles.

Such norms support social cohesion but may moderate the speed of adopting new irrigation governance practices. Dispute resolution is often handled through local courts (traditional leaders), shaping how conflicts over land, cattle damage, or water allocation are managed.

Crosscutting social profile for RACP

The Midlands region includes districts such as Kwekwe and Chirumhanzu, characterised by a mixed urban-rural economy focused on agriculture, industry, and mining. Rural households primarily rely on subsistence farming, cultivating crops like maize and groundnuts, while Kwekwe serves as an industrial hub, and Chirumhanzu remains predominantly agricultural.

Infrastructure deficits significantly affect both urban and rural areas. Kwekwe benefits from better services, including road networks and commercial facilities, while Chirumhanzu struggles with limited access to health and sanitation services. Reliable irrigation is critical for agricultural productivity but is often hindered by outdated systems and variability in rainfall patterns.

Environmental challenges related to land degradation are prominent in both districts. In Kwekwe, artisanal mining leads to land-use conflicts and deteriorating water quality, whereas Chirumhanzu faces issues with low soil fertility. These factors necessitate the adoption of climate-smart agricultural practices to enhance resilience among local farmers.

Social issues such as poverty and unemployment disproportionately impact youth and women in the region. Women play vital roles in agricultural production but frequently encounter barriers to accessing resources and participating in decision-making processes. Addressing these obstacles is crucial for improving their involvement and ensuring equitable development.

Traditional leadership structures in both districts influence resource management and conflict resolution. While communal practices help maintain social cohesion, they can also slow the adoption of new governance frameworks needed for effective irrigation management and agricultural development.

To address these challenges, RACP interventions should focus on infrastructure development to enhance rural access to roads, clean water, and electricity. Promoting climate-smart agriculture through improved irrigation systems and sustainable farming practices is essential. Additionally, empowering women and youth in decision-making and resource access will help

foster inclusive development. Strengthening local governance and community engagement, alongside supporting livelihood diversification and market access, will contribute to sustainable development and improved livelihoods across the Midlands region.

Overall Socio-Economic Insights for ESMP Integration

The socio-economic baseline in the Midlands reveals that agriculture is the dominant livelihood but faces constraints from climate variability, decaying infrastructure, market barriers, poverty, and gender inequalities. Irrigation schemes in districts like Kwekwe and Chirumhanzu are critical for providing higher incomes, stable food supplies, and rural employment, yet benefits are often unevenly distributed due to governance weaknesses, poor road networks, high input costs, and inadequate access to finance.

Challenges persist in these irrigation schemes. Kwekwe contends with aging infrastructure, inconsistent water supply, and land-use conflicts, while Chirumhanzu struggles with low soil fertility and limited market access. Women, essential to farming, face additional barriers in accessing resources and participating in decision-making.

To improve socio-economic conditions, the Environmental and Social Management Plan (ESMP) should integrate safeguards that address livelihood vulnerabilities and promote social inclusion and equitable benefit-sharing among women, youth, and vulnerable households. Enhancing market access for smallholder farmers and building resilient infrastructure are also critical.

Establishing transparent governance structures and engaging stakeholders will help address disparities and ensure equitable resource distribution. By focusing on these areas, the ESMP can significantly improve community resilience and the socio-economic conditions of households relying on irrigation schemes in the Midlands region Table 15.

Table 15: Gender Dynamics and cultural context for Midlands Irrigation Schemes

Irrigation Scheme	Gender Dynamics	Cultural Context	Key Implications for RACP
Milsonia	Women significantly contribute to agricultural labour but face barriers	Traditional leadership structures dominate, often	Enhance women's leadership training, increase safety measures

Irrigation Scheme	Gender Dynamics	Cultural Context	Key Implications for RACP
	to leadership; high risk of GBV, particularly when traveling to fields.	reinforcing patriarchal norms; community ties are strong.	like lighting, and establish channels for reporting GBV.
Sessombi	Women handle much of the labour in irrigation but are under-represented in decision-making processes; they face cultural and physical vulnerabilities.	Strong influences from customary practices and traditional norms limit women's roles in governance.	Engage traditional leaders to promote gender equity, boost women's representation in local governance, and ensure safe access to fields.
Igogo	Women carry a heavy load in both farming and household tasks; their access to resources is limited, hampering agricultural productivity.	Cultural norms emphasise male authority and decision-making, often sidelining women's contributions.	Integrate gender-sensitive planning, improve resource access for women, and ensure that women's voices are prioritised in irrigation management.
Senkwasine	Women face significant challenges in accessing irrigation resources; they are often subject to traditional practices that limit their autonomy.	Cultural practices emphasise male control over land and water resources, affecting women's participation.	Focus on securing land rights for women, offer training programs for female farmers, and adapt governance structures to facilitate women's involvement.
Wozoli	High involvement of women in agriculture, yet leadership roles remain limited; women express concerns about	Traditional norms shape gender roles, often hindering women's active participation in governance.	Implement safety measures for women, encourage women's participation in decision-making, and address

Irrigation Scheme	Gender Dynamics	Cultural Context	Key Implications for RACP
	safety while traveling to fields.		GBV risks through community programs.

4.1.7 Security Baseline for RACP Irrigation Schemes – Midlands Province

The security situation across the RACP irrigation schemes in Midlands Province exhibits several significant challenges associated with rural isolation, aging infrastructure, and a lack of formal security measures. Many schemes, including those in Kwekwe and Chirumhanzu, are situated far from urban service centers, relying primarily on local leadership for conflict resolution and informal monitoring of security concerns. Theft of irrigation infrastructure is a persistent issue, particularly targeting solar panels, pumps, and irrigation piping, undermining agricultural productivity and livelihood security.

Most irrigation schemes do not have dedicated security personnel. While community watch systems exist in some areas, these often lack the necessary training, equipment, and continuity to be effective. The long and less frequented access roads to schemes make rapid police response difficult, further exacerbating security vulnerabilities. Poor lighting in and around irrigation blocks and pump stations increases the likelihood of vandalism and livestock intrusion. In some cases, infield canals and mainlines pass unfenced through communal areas, allowing uncontrolled livestock movement that damages crop and irrigation structures.

Boundary disputes, although infrequent, can arise in schemes where plot demarcation is unclear or where new resettlement patterns place households near existing irrigation assets. During community consultations, gendered security concerns were particularly highlighted, with women expressing fear when traveling long distances to fields early in the morning or after dusk due to potential harassment or encounters with wildlife.

Wildlife-related security issues are also prevalent, particularly in areas where crop damage from animals such as elephants, baboons, and monkeys occurs. Additionally, bushfires either accidental or intentional pose a recurring threat, particularly in districts like Kwekwe, endangering both crops and irrigation infrastructure.

Overall, the security baseline indicates a pressing need for structured asset protection measures, enhanced lighting, and closer collaboration with community policing units, and reinforcement

of governance systems within the irrigation schemes. Implementing these measures will be crucial for reducing vulnerability to theft, vandalism, and conflict, ensuring the sustainability of agriculture and livelihoods in Midlands Province Table 16.

Table 16: Scheme-level security issues summary

Scheme	Key Security Issues Identified
Milsonia Irrigation Scheme	Aging infrastructure leading to frequent breakdowns; theft of equipment; inadequate community oversight; poor lighting increasing vulnerability to vandalism; conflicts over resource allocation.
Sessombi Irrigation Scheme	Insecure pump areas exposing facilities to vandalism; livestock intrusions damaging canals; unclear boundary demarcation resulting in disputes; absence of formal security personnel; wildlife risks for farmers.
Igogo Irrigation Scheme	High risk of theft of water pumps and electrical components; weak perimeter security; lack of community watch systems; uncontrolled livestock movement damaging irrigation structures; inadequate lighting.
Senkwasine Irrigation Scheme	Limited access to clean water for irrigation; unauthorised access to facilities leading to vandalism; poor fencing around assets; boundary disputes with neighbouring plots; slow police response due to isolation.
Wozoli Irrigation Scheme	Vulnerability to theft and vandalism due to inadequate security measures; disputes over water usage; long and poorly maintained access roads complicating police response; lack of lighting in critical areas.

4.1.8 Consolidated Security Themes for ESMP Integration in Midlands Province

Across the irrigation schemes in Midlands Province, several recurring security issues have emerged that must be addressed in the Environmental and Social Management Plan (ESMP) mitigation and monitoring framework:

1. **Theft and Vandalism of Irrigation Assets**: There are significant incidents of theft and vandalism targeting irrigation infrastructure, particularly components like solar panels, pumps, pipes, and electrical cables. This jeopardises the functionality of the schemes and impacts agricultural productivity.
2. **Weak Physical Security Infrastructure**: Many schemes suffer from inadequate physical security measures, including broken gates, incomplete fencing, unlit pump stations, and unfenced mainlines. These vulnerabilities increase the risk of unauthorised access and damage.
3. **Remote Location of Schemes**: The isolation of several irrigation schemes results in delayed police response times, making them more susceptible to theft and vandalism, especially during nighttime incidents when security is particularly challenging.
4. **Livestock Intrusion**: Damaged or incomplete boundary fences lead to livestock intrusions into irrigation blocks, damaging crops and irrigation infrastructure. This issue is particularly prevalent in areas where communal grazing overlaps with irrigation plots.
5. **Wildlife-Related Threats**: In regions within Midlands, especially Kwekwe and Chirumhanzu, wildlife incursions such as elephants and baboons pose risks to farmers and can cause significant damage to crops and infrastructure.
6. **Bushfire Threats**: Bushfires, whether accidental or deliberate, pose a recurring threat to pump houses, standing crops, and power lines.
7. **Gendered Safety Concerns**: Women farmers face specific security vulnerabilities when traveling to and from fields, particularly during early morning or late evening hours. Concerns about harassment or encounters with wildlife are prevalent and require attention.
8. **Limited Governance and Oversight**: Many irrigation management committees (IMCs) lack structured security protocols and trained guards. The absence of effective monitoring systems further exacerbates vulnerabilities and impedes the ability to respond promptly to security incidents.

4.1.9 Project effects to climate change and its associated risks and impacts

The proposed Resilience Agriculture Cluster Project which seeks to enhance climate resilience, agricultural productivity and rural livelihoods in five provinces through the rehabilitation and climate proofing of irrigation schemes, market infrastructure improvements and catchment restoration, may have various implications for climate change and associated risks and impacts

Positive Contributions

1. Improved Agricultural Resilience: Upgrading irrigation infrastructure in the Wozoli Irrigation Scheme will enhance farmers' ability to adapt to changing climate conditions, such as droughts or irregular rainfall. Improved irrigation efficiency can lead to stabilised crop yields, thus increasing food security in the face of climate variability.

2. Reduction of Food Waste: The establishment of post-harvest centers with solar cold storage, particularly in the Milsonia Irrigation Scheme, can significantly reduce spoilage. By minimising food waste, the project helps lower GHG emissions, as decomposing food waste generates methane a potent greenhouse gas.

3. Sustainable Practices: The integration of solar energy solutions for cold storage in the Igogo Irrigation Scheme promotes the use of renewable energy. This reduces reliance on fossil fuels to power refrigeration, thereby decreasing carbon emissions associated with food storage and transport.

4. Enhanced Carbon Sequestration: Upgrading feeder roads in the Senkwasi Irrigation Scheme could involve implementing soil conservation measures, such as planting trees along the roads to prevent erosion. This practice enhances carbon sequestration, capturing carbon dioxide from the atmosphere.

Negative Impacts

1. Increased Soil Erosion and Siltation: In the Sessombi Irrigation Scheme, upgrading infrastructure may disturb soil and vegetation, increasing the risk of erosion. This can lead to increased sedimentation in water bodies, adversely affecting local aquatic ecosystems.

2. Biodiversity Loss: Upgrading roads in the Senkwasi Irrigation Scheme could encroach on critical habitats, potentially leading to habitat loss for local wildlife. This change in land use may affect biodiversity, particularly if sensitive areas are affected.

3. Water Resource Strain: Enhanced irrigation systems in the Wozoli Irrigation Scheme may result in the over-extraction of water resources. This excessive withdrawal can strain local water bodies, especially in regions already facing water scarcity, exacerbating conflicts over water access among farmers.

4. Increased Carbon Footprint from Construction: The construction activities required for upgrading infrastructure across the schemes may lead to increased carbon emissions. For instance, the upgrading of feeder roads in Milsonia will involve machinery and transport of materials, contributing to the overall carbon footprint of the project.

Across the irrigation schemes, vulnerable groups such as women, youths, and the elderly are significantly impacted by various challenges. For instance, women often have limited access to resources and decision-making opportunities. Youth participation is generally low, and their engagement in farming activities is minimal. Additionally, the elderly face health-related challenges that limit their ability to participate actively. Collectively, these schemes reveal a need for targeted interventions to enhance livelihoods and ensure equitable access to resources, supporting the resilience of all community members. Table 17 summarises the profiles of the vulnerable groups

Table 17: Vulnerable Groups Across Midlands Schemes

Vulnerable Group	Igogo	Sessombi	Milsonia	Common Challenges
Women	9 (27%)	Estimated >30%	Majority	Limited access to training, resources, and decision-making power
Youth	2 (6%)	-	-	Limited opportunities for involvement and training
Elderly	7 (21%)	-	-	Health-related challenges and limited capacity to engage in labour-intensive tasks
People with Disabilities	Not specified	-	-	Barriers to full participation in community activities and farming
Low-Income Households	All benefiting members may fall in this category	All members	All members	Financial limitations impacting input access and economic stability

Vulnerable Group	Igogo	Sessombi	Milsonia	Common Challenges
Marginalised Communities	Not explicitly stated but may include some members	Not stated	Not stated	Lack of access to resources, voice in governance, and external support

4.1.10 Data Limitations and Uncertainties

While this baseline assessment has been undertaken using available field observations, stakeholder consultations, and secondary sources, a number of data limitations and uncertainties remain that may influence the precision of impact prediction and risk characterisation for the Midlands Province.

Hydrology and Water Resources

Hydrological and water resources data are limited across the project area. Site-specific measurements of river flows, dam yields, and groundwater recharge rates are scarce, and abstraction records for irrigation schemes and communal water points are often incomplete or unavailable. Information on seasonal variability, cumulative abstraction, and the magnitude of extreme events such as prolonged droughts or high-flow episodes is limited, constraining precise assessment of water availability and downstream flow implications.

Climate Data

Climatic data availability is constrained by the limited density of meteorological stations within the Midlands Province. As a result, the assessment relies largely on regional and district-level averages for rainfall and temperature. High-resolution, scheme-level climate data for micro-catchments are insufficient, and long-term historical records are inadequate for robust trend analysis of climate variability, extremes, and changing drought frequency.

Soils and Land Use

Soil and land use data are incomplete and, in some cases, outdated. Available land use maps do not fully capture recent changes in cultivation patterns, catchment degradation, or settlement expansion. Information on soil fertility status, texture variability, and depth is limited, and erosion-prone or severely degraded areas are not comprehensively mapped, introducing uncertainty in predicting soil loss, sedimentation, and land productivity impacts.

Biodiversity and Ecosystems

Biodiversity baseline information remains limited across the project sites. Comprehensive surveys of flora and fauna were constrained in scope, and available data on sensitive habitats, species of conservation concern, and ecological connectivity are incomplete. Records on the presence and extent of invasive alien species are fragmented, which may result in underestimation of ecosystem-level risks associated with land and water use changes.

Socio-Economic Conditions

Socio-economic data are partially outdated or aggregated at district level, limiting the resolution of analysis at scheme and household scale. This constrains accurate estimation of household incomes, crop production levels, labour allocation, water use practices, and differentiated access to resources. Information on local governance effectiveness, institutional capacity, and informal livelihood arrangements is also limited, introducing uncertainty in assessing social risks and benefit distribution.

Infrastructure and Technical Information

Technical data on irrigation and associated infrastructure are incomplete. Detailed records on the condition, performance, and remaining lifespan of existing irrigation systems, energy supply reliability, and operation and maintenance arrangements are not consistently available. Data on theft, vandalism, and historical maintenance challenges are largely anecdotal, reducing confidence in long-term operational risk assessments.

Implications for Impact Prediction

These data gaps introduce uncertainty in several areas of impact prediction, including:

- Estimation of water availability, seasonal shortages, and downstream flow impacts
- Forecasting irrigation demand, drought exposure, and crop yield responses
- Prediction of soil erosion rates, sedimentation, and nutrient runoff
- Identification of potential impacts on sensitive habitats or species
- Assessment of livelihood improvements, equitable access to benefits, and social conflict risks
- Evaluation of energy reliability, operational risks, and maintenance requirements

4.2 Stakeholder Engagement

Rationale for Consultation and Disclosure

Consultations and public participation are legally required to address concerns about the environmental impacts of any development project or programme. During the preparation of this ESMP, several communities and stakeholders in Milsoni, Wozoli, Igogo, Senkwasi and Sessombi irrigation schemes were conducted. The ESMP serves as a key instrument to guide the implementation of mitigation measures, monitor project performance and promote sustainable development throughout the project lifecycle.

The public consultation and participation process serves as a crucial mechanism to inform the public, key stakeholders, interested parties, and those affected by the project about its purpose, aims, and key activities during the development and implementation phases. The objectives of stakeholder and public participation include:

- **Providing Clear Information -** Ensuring that affected individuals receive clear, accurate, and comprehensive information about the proposed project and its anticipated environmental impacts.
- **Gathering Views and Concerns -** Offering affected individuals a platform to express their views, raise concerns, and suggest alternative arrangements to mitigate environmental and social impacts.
- **Mitigation Suggestions -** Allowing the public to suggest ways of avoiding, reducing, or mitigating negative impacts or enhancing positive impacts of the proposed project activities.
- **Incorporating Stakeholder Input -** Enabling project proponents to incorporate the needs, preferences, and values of stakeholders into the proposed project.
- **Resolving Disputes -** Providing opportunities to avoid and resolve disputes and reconcile conflicting interests among stakeholders through a grievance redress mechanism.
- **Enhancing Transparency -** Fostering transparency and accountability in decision-making processes.

Methodology of Engaging Stakeholders

- Stakeholders were engaged through multi-faceted approach was used to engage a wide range of stakeholders for the irrigation schemes:

- **Community Meetings:** Public consultative meetings were held with the members of each irrigation scheme to discuss project plans and gather collective feedback.
- **Key Informant Interviews:** Structured discussions were held with the Irrigation Management Committee (IMC). **Site Visits:** Physical inspections of the scheme infrastructure, including water sources, pump houses, and fields, were conducted alongside farmers and community leaders to ground-truth issues.

  Inclusive and Participatory Workshops: Consultative processes were designed to ensure the active participation of all groups, including women, youth, and the elderly, in accordance with project social inclusion principles. Table 18 and Table 19 show the list and responses from the stakeholders.

Table 18: Responses of Key Stakeholders

District	**Views /Concern/ Benefits**	**Status**
Chirumanzu RDC	**Benefits:** The program will ensure food security for smallholder farmers It will also help to mitigate climate change and to adapt. It will assist in infrastructure rehabilitation and improve accessibility and mobility in the project area. **Concerns:** possibility of land degradation and also ecosystems disturbances, cutting down of tress would need replace (Appendix 14).	Done
Chirumanzu DDC	**Benefits:** Improved yield in fam lands and reduced farming risks. Employment created during and after the project. Improved infrastructure and quality of life in the rural areas. **concerns** land degradation, reduced social well-being, if the project is not well managed for the intended beneficiaries (see Appendix 15).	Done
Kwekwe RDC	**Benefits:** This project will promote sustainable agriculture in the district.	Done

District	Views /Concern/ Benefits	Status
	Concerns: consultation with traditional leaders is essential (see Appendix 13).	
Kwekwe DDC	**Benefits:** increased production and productivity. **Concerns:** lack of all-inclusive approach to development which goes against the principle of the whole of government and the whole of the society approach (see Appendix 12)	Done

Table 19: List of Stakeholders Consulted

Name	Mode of Consultation	District	Contact
Mr Mupungu	Questionnaire	Kwekwe DDC	+263 5525237713
Mr Kumwa	Questionnaire	Kwekwe RDC	+263 552523041
Mr Chimedza	Questionnaire	Chirumhanzu DDC	+263 773016486
RDC CEO	Questionnaire	Chirumhanzu RDC	+263 772840159

4.2.2 Summary of Community Meetings

The list of community engagements is given in Table 20.

Table 20: List of Community Engagement Meetings

Irrigation Scheme	Mode of Consultation	Details	Date
Igogo Irrigation Scheme	• Community meeting (Plate 12)	Minutes and Registers (see Appendix 9 and Appendix 10)	04/10/25 Start time: 11:40 Hrs End time: 12:30 Hrs
Sessombe Irrigation Scheme	• Community meeting (see Plate 15)	Minutes (see Appendix 4)	04/10/25 Start time: 13:00 Hrs

Irrigation Scheme	Mode of Consultation	Details	Date
			End time: 14:20 Hrs
Senkwasi Irrigation Scheme	• Community meeting with farmers (see Plate 16).	Minutes and Registers (see Appendix 7 and Appendix 8)	09/10/25 Start time: 08:30 Hrs End time: 11:00 Hrs
Wozoli Irrigation Scheme	• Community meeting with the surrounding Community (see Plate 14)	Minutes and Registers (see Appendix 5 and Appendix 6)	08/10/25 Start time: 10:00 Hrs End time: 11:00 Hrs
Milsonia Irrigation Scheme	Community meeting with farmers (see Plate 13)	Minutes and Registers (see Appendix 1 and Appendix 2)	09/10/25 Start time: 16:40 Hrs End time: 17:55 Hrs

Igogo Irrigation Scheme

A community meeting was conducted at the Igogo Irrigation Scheme in Midlands Province on 4 October 2025 to introduce the Resilience Agriculture Cluster Project (RACP). The meeting aimed to inform community members that the RACP builds upon the previous Smallholder Agriculture Cluster Project (SACP), specifically focused on enhancing irrigation schemes. The Scientific and Industrial Research and Development Centre (SIRDC) has been assigned the task of developing an Environmental and Social Management Plan (ESMP) for the initiative.

Expectations

The community at Igogo Irrigation Scheme holds a strong belief that the rehabilitation of the irrigation system will lead to significant improvements in their livelihoods, allowing families to generate more income and facilitate sending their children to school for better futures. With improved access to the scheme, transportation is expected to become easier due to increased traffic facilitating the movement of goods and services. Better health outcomes are anticipated

as consistent food production enhances nutrition. The community also recognises the potential to create job opportunities for local members, fostering economic growth. They seek timely feedback on submitted complaints to enhance communication and ensure their voices are heard. Additionally, they acknowledge challenges related to agricultural inputs, requesting clear information on any costs for better financial preparation.

The community highlights the urgent need for the rehabilitation of irrigation scheme roads to enhance tractor mobility. They are willing to relocate from surrounding plots if there is a need for irrigation expansion. While they recognise the potential challenge of rising sexual immorality, they believe that awareness campaigns could effectively mitigate this issue. Engaging youth in rehabilitation and irrigation activities is seen as a means to address social decay while providing mentorship. They also advocate for promoting the use of irrigation proceeds for family welfare.

In addition to these expectations, the community raises several critical issues. They note that the location of the pump house has not been properly constructed and is a concern. Access to safe drinking water for both field and home use is essential. Furthermore, they emphasise the need to improve harvesting methods, as current practices are too manual and not efficient enough for optimal productivity.

Benefits and Mitigation Measures

The community identified several benefits they expect from a successfully rehabilitated scheme, including access to ready markets for their produce, significantly improved livelihoods, and the eradication of hunger within the community through consistent and reliable food production.

In terms of mitigation measures, participants proposed practical solutions to the challenges discussed. To address security and crop damage, they recommended installing a security fence around the fields. To combat power instability, the need for a solar system was emphasised as critical. The importance of establishing readily available markets was underscored to ensure farmers receive fair prices and avoid losses. The revival of the scheme was viewed as a pathway to financial inclusion, enabling farmers to secure bank loans backed by the promise of stable profits. Furthermore, the community believes that new infrastructure will significantly improve

farming output and supports measures to control stream bank cultivation to protect their water source from siltation. (see Plate 12).

Plate 12: Stakeholder Meeting with the Farmers for Igogo Irrigation

Milsonia Irrigation Scheme

A community meeting was conducted at the Milsonia Irrigation Scheme in Midlands Province on 9 October 2025 to introduce the Resilience Agriculture Cluster Project (RACP). The meeting aimed to inform community members that the RACP builds upon the previous Smallholder Agriculture Cluster Project (SACP), specifically designed to enhance irrigation schemes. The Scientific and Industrial Research and Development Centre (SIRDC) has been tasked with developing an Environmental and Social Management Plan (ESMP) for this initiative.

Expectations

The community at Milsonia Irrigation Scheme strongly believes that the rehabilitation of the irrigation system will significantly improve their livelihoods, enabling families to generate more income and send their children to school. Improved access to the scheme is expected to ease transportation challenges, facilitating the movement of goods and services. Additionally, members anticipate better health outcomes as consistent food production enhances nutrition. They also recognize the potential for job creation, which will foster local economic growth. Community members emphasised the need for timely feedback on complaints submitted to improve communication and ensure their concerns are addressed. They acknowledged the

challenges related to agricultural inputs, requesting clear information on any associated costs to prepare financially.

The community highlights the urgent need for the rehabilitation of irrigation scheme roads to facilitate efficient tractor mobility. They expressed willingness to relocate from surrounding plots if irrigation expansion is necessary. While they are aware of the potential challenge posed by rising sexual immorality, they believe that increased awareness campaigns could effectively mitigate this issue. Engaging youth in both rehabilitation and irrigation activities is viewed as a way to address social decay while providing valuable mentorship. Additionally, they advocate for using irrigation proceeds to support family welfare.

In addition to these expectations, the community raised several critical issues. They noted that the pump house has not been properly constructed, which requires urgent attention. Access to safe drinking water is also essential for both field and home use. Furthermore, they emphasised the need to improve harvesting methods, as current practices are too manual and inefficient.

Benefits and Mitigation Measures

The community identified several benefits they expect from a successfully rehabilitated scheme, including access to reliable markets for their produce, significantly improved livelihoods, and the reduction of hunger within the community through consistent food production.

In terms of mitigation measures, participants proposed practical solutions to the challenges discussed. To address security concerns and prevent crop damage, they recommended installing a security fence around the fields. To combat power instability, the community emphasised the critical need for a solar energy system. They also stressed the importance of establishing readily available markets to ensure farmers receive fair prices and avoid losses. The revival of the irrigation scheme is viewed as a pathway to financial inclusion, enabling farmers to secure bank loans backed by the promise of stable profits. Furthermore, the community believes that new infrastructure will significantly enhance farming output and supports measures to control stream bank cultivation to protect their water source from siltation.

Plate 13: Stakeholder Meeting with the Farmers at Milsonia Irrigation Scheme

Wozoli Irrigation Scheme

A community meeting was conducted at the Wozoli Irrigation Scheme in Midlands Province on 6 October 2025 at 10:00 a.m. The meeting included introductory remarks from members of the Scientific and Industrial Research and Development Centre (SIRDC), Agritex, and the irrigation committee. The Resilience Agriculture Cluster Project (RACP) was presented as an initiative building upon the previous Smallholder Agriculture Cluster Project (SACP), specifically designed as a climate change resilience program aimed at helping farmers achieve better yields.

Purpose

The primary purposes outlined for the RACP include climate proofing, land conservation, implementation of solar-powered irrigation systems (green energy), ensuring equal opportunities for all, road rehabilitation, and afforestation efforts. SIRDC is set to develop an Environmental and Social Management Plan (ESMP) to document the benefits, concerns, and proposed mitigation measures that may be considered for the project.

Benefits

Community members expressed optimism regarding several anticipated benefits from the rehabilitation initiatives. These benefits include improved livelihoods for both the community and farmers, better food security for all, enhanced community development in the area, and

increased employment opportunities for local residents and youth. They also noted that the project would allow for increased availability of school fees for children and contribute to improved health and overall well-being within the community.

Concerns

Despite the positive expectations, several significant concerns were raised during the meeting. Participants expressed disappointment that the SACP had promised tractors, engines, and other agricultural inputs, but these had not materialised. They noted the critical issue of the scheme dam being silted, resulting in no available water. There was a demand for an additional borehole to complement the two already installed, as the existing drip irrigation system was deemed unreliable given the area to be irrigated. Furthermore, the community indicated that the current storage tanks were insufficient and required additional water from the dam. Questions were raised about the status of the SACP's programs, as farmers felt that repeated promises had not led to tangible results. Additional worries included the dire state of feeder roads needing rehabilitation, the potential increase in theft and other crimes, delays in payment for delivered farm produce, and an ongoing need for agricultural inputs.

Mitigation Measures

To address these concerns, the community proposed several practical mitigation measures. They suggested that the silted river should be scooped to restore water flow. They identified that the current system is inadequate without additional storage tanks and advocated for the installation of larger tanks. The addition of sprinklers was recommended to simplify the watering process. Road rehabilitation on feeder roads was also deemed necessary. Furthermore, they expressed the need for reliable markets for produce after harvest and emphasised the necessity for water to support agricultural inputs. Finally, they cautioned that without proper measures, social and cultural disturbances could arise Plate 14.

Plate 14: Stakeholder Meeting with the Farmers at Wozoli Irrigation Scheme

Sessombe Irrigation Scheme

A community meeting was conducted at the Sessombe Irrigation Scheme in Midlands Province, Village 6. The meeting began with a brief background of the Scientific and Industrial Research and Development Centre (SIRDC) and the Resilience Agriculture Cluster Project's (RACP) mandate regarding climate-smart agriculture. It was emphasised that SIRDC is responsible for developing an Environmental and Social Management Plan (ESMP) for the project.

Expectations

The community at Sessombe Irrigation Scheme expressed strong beliefs that the installation of a solar irrigation system and other enhancements will positively impact their livelihoods. They anticipate that improved access to reliable irrigation will facilitate better agricultural yields and ultimately enable families to earn more income and provide education for their children. The community is hopeful that the project will lead to job creation, particularly for the youth, and improve food security both for farmers and for surrounding households. They emphasised the need for equitable opportunities in project participation and requested timely updates on project progress to ensure transparency and engagement.

Community members raised concerns about potential negative impacts from project expansion, including the displacement of existing residents. They noted issues with impersonators posing as government officials, which disrupt farm activities. Additionally, there were requests for guaranteed markets with fair prices for their produce. The community felt that delays in project commencement had caused frustration, with some members feeling neglected due to a lack of

communication about the project's status. They also expressed worries about water availability, the risk of theft of equipment, and the impact of climate change on agricultural yields.

Benefits and Mitigation Measures

The community identified several anticipated benefits from the RACP, including employment opportunities for local residents, secure markets for farm produce, enhanced food security, improved livelihoods for beneficiaries, and greater peace within families due to increased economic stability.

To address the concerns discussed, community members proposed several mitigation measures. They suggested restricting construction workers' access to village areas to ensure that they remain focused on their tasks and do not create disturbances. It was also proposed that a permanent security presence be established to safeguard community resources. The use of a constitution to define rules and responsibilities among all participants was recommended to foster collaboration and adherence to standards Plate 15.

Plate 15: Community Meeting at Sessombe Irrigation Scheme

Senkwasi Irrigation Scheme

A community meeting was conducted at the Senkwasi Irrigation Scheme in Midlands Province on 9 October 2025 at 08:50 AM. The meeting began with the Scientific and Industrial Research

and Development Centre (SIRDC) explaining the agenda for the Resilience Agriculture Cluster Project (RACP). This discussion encompassed key activities such as water harvesting, alternative energy sources like solar power, the rehabilitation of irrigation schemes, and catchment management as part of climate-proofing efforts.

Expectations

The community at Senkwasi Irrigation Scheme expressed strong beliefs that the integration of solar energy for water extraction will significantly benefit their agricultural practices. They anticipate that the establishment of reliable night water storage will facilitate irrigation during the cooler evening hours, thereby minimising water loss. Additionally, farmers are optimistic about the potential to diversify crops by growing fruit trees alongside traditional crops. The community also expects a steady water supply to prevent queuing for irrigation, which will further enhance agricultural productivity. They believe that increased water availability could enable aquaculture initiatives and contribute to improving their livelihoods by providing resources for education, food, and local employment. Overall, the members expect that revitalisation of the irrigation system will lead to better health and well-being.

Benefits and Mitigation Measures

Despite their optimistic outlook, community members raised several significant challenges. They reported that current market prices for their produce are lower than expected, which, combined with high irrigation and transportation costs, creates financial strain. Additionally, poor road conditions are discouraging marketers from transporting produce from the scheme. Farmers expressed concerns over unsatisfactory bean harvests and requested guidance on whether this is due to soil quality or farming practices. They highlighted urgent repairs needed for leaking water distribution pipes and suggested that a sprinkler system would improve the functionality of the irrigation setup. Although the scheme provides equitable access for all genders and youth, irrigation, water, and electricity challenges have pushed some community members towards illegal mining activities. Delays in payments for delivered produce have further complicated financial planning for the next cropping season.

Community members also stressed the importance of giving first preference to irrigators for employment during rehabilitation efforts. This approach could not only reduce theft but also

promote a sense of ownership among stakeholders. Furthermore, they expressed hope that ongoing visits and discussions would lead to the effective implementation of the RACP.

Other Benefits

The community identified several additional benefits that arose from participation in the project. Increased education levels have fostered a greater appreciation for developmental issues at the household level. By being able to pay school fees, families are contributing to the formation of future leaders within the community. They also noted that shared land use is expanding the area of arable land, which could be utilised more effectively if water supply improvements are implemented. There remains idle land in need of rehabilitation to be useable. Furthermore, the expectation of local employment generated by the project could help mitigate social issues such as sexual immorality. Community members emphasised that contractors should prioritise hiring local workers for general tasks to benefit the community directly Plate 16.

Plate 16: Community Meeting Held at Senkwasi Irrigation Scheme

5.0 IMPACT ASSESSMENT

This chapter presents a systematic assessment of the potential environmental and social impacts associated with the RACP. It identifies and analyses the likely changes to the physical, biological and socio-economic environment arising from project activities during the planning, construction, operation and decommissioning phases. The assessment draws on baseline data from the project catchments, field observations and RPA studies and applicable AfDB and IFAD safeguard requirements. It establishes the nature, magnitude, likelihood and duration of each impact and forms the basis for the mitigation measures, monitoring and management actions set out in the subsequent Environmental and Social Management Plan.

5.1 Key Project Activities Likely to Cause Impacts

This section summarises the major project activities anticipated under the rehabilitation and climate-proofing of selected irrigation schemes across Midlands Province. It draws on findings from field Rapid Participatory Appraisals (RPAs), scheme-level Environmental and Social Management Plans (ESMPs), and district consultations. The analysis is organised by district to reflect site-specific conditions and potential environmental and social impacts.

1. Igogo Irrigation Scheme

Civil Works and Expanded Irrigation

Civil Works: Requires major rehabilitation: new pumping units, repair of leaking conveyance lines, construction of infield roads and storm drains, and a perimeter diamond mesh fence. Expanded Irrigation: Designed for 84ha (64ha hose-reel, 20ha sprinkler). The system is underperforming. Recommended to convert the hose-reel to more sustainable systems (e.g., lateral move, centre pivot). A potential 12ha expansion exists but is not currently serviced.

Catchment Restoration and Water Harvesting

Catchment Restoration: The Mbembeswane River catchment suffers from heavy siltation due to deforestation, stream bank cultivation, and overgrazing. There are no active micro-catchment protection plans.

Water Harvesting: The current abstraction point is threatened by siltation and flooding. Recommendations include constructing a weir downstream, using artificial well points, or relocating the pump house to a higher elevation.

Market Roads and Post-Harvest Infrastructure

The 7km last-mile road is in poor condition, with unpassable waterways during rains, leading to high transport costs and isolation from markets.

Post-Harvest Infrastructure: No storage or pack shed. Inputs and produce are stored in an open-sided shed, leading to high post-harvest losses. Farmers sell directly from the field, losing bargaining power.

Training and Capacity Building

Critical need for training in: Operation and Maintenance (O and M), Good Agricultural Practices (GAPs), marketing, financial management, group governance, and leadership. The current IMC is perceived as ineffective**.**

Community Health and Safety

Health: Only two Blair toilets for 33 members, inadequate for the scheme size. A borehole provides reddish, unpalatable water, requiring quality testing. Mild cases of bilharzia and dysentery were reported in the community**.**

Machinery is left in the open. Lack of protective clothing for pesticide application poses health risks.

Waste Management and Pollution

No structured waste management system. Agricultural waste is not disposed of properly. The open storage shed leads to potential contamination of inputs**.**

Biodiversity and Ecosystem Pressures

Significant environmental degradation: loss of vegetation cover, invasive species (Lantana camara), soil erosion, and river siltation. The ecosystem is over-committed due to reliance on firewood and overgrazing.

Water Resource Conflicts

Water is abstracted from the Mbembeswane River, which is also the main water source for Kwekwe Municipality. An agreement with ZINWA exists, but the shared use of this resource presents a potential for conflict, especially during droughts.

Cultural Heritage and Land Use Conflicts

Land is state-owned (communal area), and farmers operate as a cooperative with no individual plots. This can create tensions regarding ownership, investment, and responsibility. Membership has dropped from 53 to 33 due to poor returns**.**

Energy Use and Climate Linkages

Energy: Fully reliant on ZESA grid electricity, which is subject to load-shedding and high costs.

Climate Linkages: Experiencing increased flash floods and mid-season dry spells. Changes in rainfall patterns affect surface runoff and groundwater recharge.

Social Tensions and Equity Issues

Women and the elderly find the hose-reel system physically challenging to operate. While there is equal access to water and training, labour is divided along gender lines. Self-defined wealth ranking shows disparities (Rich 6%, Middle 70%, and Poor 24%). The wealthy are often excluded from input schemes, while the poor struggle to pay fees on time.

Occupational Health Risks

Limited knowledge and practice of safe pesticide use due to the high cost of protective clothing. Poor sanitation facilities at the scheme increase health risks.

Cumulative Impacts

The combination of frequent pump breakdowns, siltation, poor road access, weak governance, and lack of storage creates a cycle of low productivity, low income, and member dropout, rendering the scheme sub-optimal. (PPE), Emergency preparedness plans will be critical for minimising workplace hazards.

2. Sessombe Irrigation Scheme

Civil Works and Expanded Irrigation

Civil Works: Requires a complete new system: equipping and flushing the main borehole, new conveyance pipeline (~50m), new infield irrigation system, perimeter fence, and electrification. The old 175ha system is defunct, and the land has been parcelled out. The new proposed intervention focuses on a 20ha unit using groundwater.

Catchment Restoration and Water Harvesting

Catchment Restoration: Minor land degradation reported. No active catchment protection plans or mechanical conservation works. The scheme relies entirely on groundwater. One high-yield borehole (≥35m³/hr) exists. Recommended to drill 2 additional boreholes to secure water for the 20ha unit.

Market Roads and Post-Harvest Infrastructure

The road is a stretch of 9.6km long and requires rehabilitation. A Bill of Quantities has been prepared. There are no existing storage or post-harvest facilities. This will need to be developed as part of the scheme's revitalisation.

Training and Capacity Building

An interim IMC is in place. Constitution and membership are being finalised. Training will be essential in OandM, governance, and modern agricultural practices once the scheme is operational.

Community Health and Safety

Health: No dedicated sanitation or potable water facilities at the scheme site. A functional community borehole is located 150m away. There are no specific occupational risks identified currently, as the scheme is not active.

Waste Management and Pollution

The primary risk is the improper disposal of used pesticide and fertiliser containers from the cultivation of crops. Agri-chemical runoff could contaminate the water bodies, affecting water quality for the scheme.

Biodiversity and Ecosystem Pressures

The area is a sparse tree-bush savannah. They may be affected, resulting in habitat loss, combined with potential chemical runoff, puts pressure on terrestrial and aquatic biodiversity.

Water Resource Conflicts

The main challenge is the sustainability of the aquifer, which may be affected by reduced rainfall and increased droughts.

Cultural Heritage and Land Use Conflicts

An old resettlement scheme where land was divided into individual 6ha plots. This fragmentation is the primary conflict, as it broke up the original irrigation layout, making a cohesive system difficult to re-establish.

Energy Use and Climate Linkages

An HT line runs nearby. A new transformer connection is needed (est. USD 9,000). The scheme is in Natural Region IV (450-600mm rainfall). Rainfall is increasingly unreliable with frequent droughts and higher temperatures, increasing dependence on irrigation.

Social Tensions and Equity Issues

The 120 intended beneficiaries are from surrounding villages. The composition is yet to be finalised, which could create inclusion tensions. Both men and women have equal access to training, though women tend to attend more.

Occupational Health Risks

Exposure to agro-chemicals during spraying is also another key health risk when the irrigation scheme becomes functional.

Cumulative Impacts

Decades of dormancy and land fragmentation have left no functional infrastructure. The success of revitalisation hinges on resolving land-use issues, securing sufficient groundwater, and building a cohesive new farmer community.

3. Wozoli Irrigation Scheme

Civil Works and Expanded Irrigation

There is a need for two new duty pumps for the river abstraction, repair of breached concrete tanks (2x 120m^3), and rehabilitation of leaking canals and pipelines.

Expanded Irrigation: Currently 16ha (14ha surface irrigation, 2ha drag-hose). Recommended to convert the entire system to water-saving technologies (sprinkler/drip). The 2Ha drag-hose system is dysfunctional.

Catchment Restoration and Water Harvesting

There is so much Siltation occurring at the Gweru River weir. No deliberate micro-catchment plan exists.

The irrigation scheme relies on a weir in the Gweru River (4km away) and solar-powered boreholes. The lack of storage tanks forces direct pumping, limiting the irrigable area.

Market Roads and Post-Harvest Infrastructure

The 2km road stretch needs rehabilitation in the scheme. Also, infield roads are inadequate, causing access conflicts. One small storage shed exists, which is insufficient. There is no proper pack shed for grading and packaging.

Training and Capacity Building

The IMC and sub-committees are functional. Training needs include O&M of new systems, marketing, and collective bargaining to improve their position as "price takers."

Community Health & Safety

The scheme has 3 BVIP latrines; there is a need to improve them to water system toilets.

A solar-powered borehole provides safe drinking water. There is a need for safe pesticide use should be reinforced.

Waste Management and Pollution

Agricultural chemical containers and waste may pose a minor pollution risk.

Biodiversity and Ecosystem Pressures

Land degradation, erosion and siltation are major issues. Two mining entities operate ~4km away, representing a potential external pressure on the environment and water quality.

Water Resource Conflicts

Abstracts water from the Gweru River under an informal agreement with ZINWA but has no formal water permit, creating a legal vulnerability and potential for conflict with other users or the authority.

Cultural Heritage and Land Use Conflicts

As the land is communal. The main conflict is internal, stemming from poor infield road access, which forces farmers to traverse each other's plots, creating tensions.

Energy Use and Climate Linkages

A mix of grid electricity (for the main pump, with high bills) and solar power (for boreholes, but undersized). Erratic rainfall and prolonged droughts reduce river inflows, making the scheme's water supply unreliable.

Social Tensions and Equity Issues

A relatively equitable distribution of farming tasks between men and women. Both participate in marketing and decision-making.

Wealth: The Majority are in B1 (38%) and B2 (60%) categories, indicating a predominantly middle-class membership with few very poor or very wealthy members.

Occupational Health Risks

Standard agricultural risks (pesticide use, etc.). No specific high-risk activities highlighted, but general training in GAPs is beneficial.

Cumulative Impacts

The combination of an ageing surface irrigation system, broken storage tanks, undersized solar pumps, and direct pumping creates severe water inefficiency and supply shortages. This limits cropping intensity and income, perpetuating a cycle of underperformance despite having a functional IMC.

4. Milsonia Irrigation Scheme

Civil Works and Expanded Irrigation

The Milsonia scheme requires a complete systemic overhaul, having been non-functional since the year 2000. Critical needs include the installation of two new duty pumps, a new transformer, and the rehabilitation of its conveyance pipeline and Night Storage Dam (NSD). The original 120ha system was largely parcelled out to individuals, leaving 34ha of state land. The proposed intervention focuses on developing 30ha with a modern overhead sprinkler system, as the old infield canals are dilapidated and unsuitable.

Catchment Restoration and Water Harvesting

The scheme draws water from Muponisi Dam, which faces challenges of siltation and stream bank cultivation within its catchment. While a micro-catchment plan is reported to be in place, active restoration work is needed. The dam's exact capacity is unknown, but it is estimated to support 20 ha under a sprinkler system. Its wall requires maintenance, and increasing drought frequency threatens reliable inflows.

Market Roads and Post-Harvest Infrastructure: Although located near a main road, the community faces severe access issues due to dangerous and impassable waterways during the rainy season, which also endangers school children. Furthermore, the scheme completely lacks storage or post-harvest facilities, which cripples its potential for value addition and market bargaining.

Training and Capacity Building:

An interim Irrigation Management Committee (IMC) exists. Given the scheme's decades-long dormancy, comprehensive training in operation and maintenance, financial management, group governance, and modern agricultural practices will be essential once infrastructure is rehabilitated.

Community Health and Safety

The scheme site itself has no dedicated sanitation or potable water facilities, forcing reliance on a school borehole and raw water from Muponisi Dam. The hazardous road crossings present a significant safety risk to the community.

Waste Management and Pollution

No structured waste management systems are reported, indicating it is not a current practice.

Biodiversity and Ecosystem Pressures

The area is a sparse tree-bush savannah. Pressures include minor land denudation and dam siltation. The absence of nearby mining activities reduces external environmental pressures.

Water Resource Conflicts

Water is abstracted from Muponisi Dam, which is under community management and also serves domestic and livestock needs. While no active conflicts are reported, the shared demand on a limited resource creates a potential for tension, especially during dry periods.

Cultural Heritage and Land Use Conflicts

The land is under A1 resettlement. The history of fragmenting the original 120ha farm is the primary land-use challenge, with only 34ha remaining for the communal irrigation scheme.

Energy Use and Climate Linkages

An HT line is nearby, but the transformer was removed by the power utility, requiring a new connection. The area is in a drought-prone natural region, and climate change is manifesting through unreliable rainfall and higher temperatures, increasing the scheme's importance for resilience.

Social Tensions and Equity Issues

There is a relatively equitable distribution of farming duties between men and women, with women often managing household finances. The scheme membership is predominantly middle-class, with no very poor households reported.

Occupational Health Risks

General agricultural risks are present. The lack of safe drinking water and sanitation at the scheme site poses a continuous health risk to farmers.

Cumulative Impacts

The combined effect of two decades of dormancy, the complete absence of core infrastructure, and historical land fragmentation presents a high barrier to revival. Success is entirely dependent on a significant capital investment to establish a new, efficient irrigation system and concurrently build a cohesive and skilled farmer community.

5. Senkwasi Irrigation Scheme

Civil Works and Expanded Irrigation

The Senkwasi scheme is operational but sub-optimal. It urgently requires a new duty pump and a standby pump, repairs to its leaking conveyance pipeline, and rehabilitation of its non-functional Night Storage Dam (NSD). The canal network also leaks and lacks proper control structures. The equipped area is 46ha, but water shortages restrict use to only 19.6ha. A planned 26ha extension has been defunct for decades due to the non-rehabilitation of a supporting dam.

Catchment Restoration and Water Harvesting

The water source, Senkwasi Dam, is affected by siltation and has a heavily eroded wall, posing a breach risk. A micro-catchment plan exists. Two boreholes meant to complement the dam were never equipped, and drought frequency is reducing reservoir inflows.

Plate 17: Night Storage Dam at Senkwasi Irrigation Scheme

Market Roads and Post-Harvest Infrastructure:

The 1.2km last-mile road and infield access roads are in poor condition, eroded, and lack drainage, making them difficult to use in the rain. The scheme has a storage shed that doubles as an office and meeting place, which is a valuable, though basic, asset.

Training and Capacity Building

The IMC and its sub-committees are functional. Key training needs are in the operation and maintenance of the upgraded system and marketing. Farmers have abandoned a formal O and M fund due to a lack of spare cash, resorting to ad-hoc collections when breakdowns occur.

Community Health and Safety

Sanitation is adequate, with each block having a double-compartment toilet. However, only one borehole serves all 101 farmers for potable water. A major safety concern is the substandard and dangerous electrical wiring in the pump house.

Waste Management and Pollution

There is no defined drainage system in the scheme, leading to erosion in fields and on roads.

Biodiversity and Ecosystem Pressures: Environmental issues include land denudation and dam siltation. A mine located 5km away represents a potential external pressure on water quality and quantity.

Water Resource Conflicts

The dam is managed by the national water authority, which has decommissioned it and removed its staff. Farmers operate without a formal water permit but still receive bills, creating a tenuous and legally vulnerable water access situation. The dam is also a critical resource for the broader community and livestock.

Cultural Heritage and Land Use Conflicts

The scheme is based on an old resettlement scheme model, and no significant cultural or land conflicts are reported within the currently cultivated area.

Energy Use and Climate Linkages

The scheme is connected to the grid via a 50kVA transformer and uses a prepaid meter system. However, the switchgear is faulty, causing frequent power trips. The climate is characterised by a shifted and unreliable rainfall pattern, increasing the scheme's importance.

Social Tensions and Equity Issues

There is equal participation in farming tasks and market access between men and women. The membership is predominantly in the middle wealth categories.

Occupational Health Risks

The most significant occupational risk is posed by the hazardous electrical installations in the pump house.

Cumulative Impacts

The scheme suffers from a cycle of inefficiency: frequent pump breakdowns and massive water loss from the leaking NSD and canals limit production. Low production leads to poor incomes, which in turn prevent farmers from saving for the maintenance required to break the cycle. This has kept the scheme operating far below its potential capacity for years.

5.2 Impact Assessment Methodology

The Environmental and Social Impact Assessment for the Resilience Agriculture Cluster Project (RACP) has been conducted in strict compliance with Zimbabwe's Environmental Management Act [Chapter 20:27], the International Fund for Agricultural Development's Social, Environmental and Climate Assessment Procedures (SECAP, 2021), and the African Development Bank's Integrated Safeguards System (2023). The assessment employed a systematic, evidence-driven methodology that integrated comprehensive scoping, active stakeholder consultation, and a quantitative impact rating system. A phased screening process was applied to the project's planning, construction, operation, and decommissioning stages to identify potential environmental and social impacts. For each identified impact, a detailed evaluation was conducted, analysing its characteristics, magnitude, probability, duration, and spatial scale. This process generated a composite significance rating for both pre-mitigation and post-mitigation scenarios. This comparative analysis provides a transparent overview of residual risks and enables the prioritisation of mitigation and management measures for maximum effectiveness. To ensure a robust and credible foundation for the ESMP, the methodology combined qualitative data, such as community perceptions gathered through consultations, with quantitative indicators, including metrics on land area affected, population size, emission levels, and water flow rates.

Impact Rating Criteria

The significance of each identified potential impact was determined through a multi-criterion scoring system, adapted from the standardised Impact Assessment Management Matrix framework. This methodology ensures a transparent and reproducible process for prioritising mitigation interventions. The evaluation was based on the following defined criteria Table 21:

Table 21: Impact Rating Criteria

Criterion	Description	Scale
Likelihood / Probability	The probability that the impact will occur given current conditions and proposed activities.	1 (Rare) – 5 (Almost Certain)
Severity / Magnitude	The expected intensity of the impact on the environment or society if it occurs.	1 (Negligible) – 10 (Severe)

Criterion	Description	Scale
Duration	How long will the impact last once it occurs?	1 (Short-term <1 year) – 5 (Permanent)
Extent / Spatial Scale	The geographic area over which the impact will be felt.	1 (Site-specific) – 5 (Regional / Beyond)
Sensitivity / Receptor Vulnerability	The sensitivity of the environment or population affected (high ecological value, vulnerable groups).	1 (Low) – 5 (High)

Scoring Method:

Overall impact **significance score (SP)** = (Probability + Magnitude + Duration + Extent + Sensitivity).

Scores are grouped into the following significance classes:

Scores are grouped into the following significance classes:

- **Low (<25)** – Minor impact, easily managed by standard measures.
- **Moderate (25-55)** – Material impact requiring specific mitigation and monitoring.
- **High (>55)** – Serious impact needing intensive management and residual risk analysis.

Residual Impact Significance: For each impact, the residual significance after mitigation is also calculated using the same criteria but adjusted for the expected effectiveness of mitigation measures. This shows clearly where mitigation has reduced risk to an acceptable level.

5.3 Identified Impacts

This section provides a systematic presentation of the environmental and social impacts identified for the RACP, categorised by project phase: planning, construction, operation, and decommissioning. By applying the impact rating methodology outlined in Section 5.2, a comprehensive screening and evaluation of potential alterations to the physical, biological, and socio-economic environment has been conducted. The analysis delineates the distinct risks and benefits associated with specific activities within each phase, including site preparation, civil works, water abstraction, scheme operation, and final closure. This structured, phase-specific analysis forms the foundational basis for the mitigation measures, monitoring indicators, and

management responsibilities detailed in the subsequent parts of this ESMP. The identified impacts for each project phase are summarised in Table 22 and Table 23.

Table 22: RACP Project Impacts

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
PLANNING PHASE			
Selection of irrigation design and layout (**OS1, OS2, S1, S6**)	Social inclusion	Risk of excluding women, youth and vulnerable households if design and allocation decisions are not participatory.	–
Determining abstraction points and water supply (**OS1, OS3, S1, S2**)	Water resources	Possible pressure on upstream and downstream water users where cumulative withdrawals are not assessed.	–
Defining scheme footprint and boundaries (**OS2, S7**)	Land access	Restrictions to community pathways, informal gardens or grazing routes may create conflict.	–
Designing canals, pipelines and pump stations (**OS3, S2**)	Biodiversity	Disturbance to riparian vegetation, wetland pockets or sensitive species if ecological data is not integrated.	–
Planning drainage and water control structures (**OS1, OS4, S5, S9**)	Climate and disaster risk	Increased exposure to flooding, runoff or waterlogging if climate risks are not considered in design.	–
Identifying borrow pits and stockpile sites (**OS1, OS3, S2**)	Soil and landscape	Potential soil degradation, erosion and disturbance of microhabitats.	–

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Labour and contractor planning (**OS5, S4**)	Labour conditions	Risk of labour influx, discrimination, or weak OHS arrangements.	–
Designing gender and SEAH-sensitive governance (**OS1, OS2, OS5, S3, S6**)	Gender and protection	SEAH risks increase if safe access, lighting and representation are not built into planning.	–
Planning construction access routes (**OS4, S5**)	Community safety	Traffic safety concerns for schoolchildren, pedestrians and livestock.	–
Early consultations and disclosure (**OS1, S6**)	Participation	Risk of mistrust or conflict where consultations lack inclusivity or transparency.	–
GRM planning and early dispute systems (**OS1, OS2, OS5, S6, S7**)	Grievances	Lack of early grievance management may escalate disputes.	–
Climate screening and resilience planning (**OS1, OS4, S9**)	Climate resilience	Infrastructure may underperform if hazards such as droughts, floods or heat stress are underestimated.	–
Planning for agrochemical management (**OS4, S5**)	Pollution	Potential future contamination from pesticides or fertilisers if poor planning persists.	–
Cultural heritage reconnaissance (**OS1, S3**)	Cultural heritage	Risk of disturbing unrecorded cultural or spiritual features if chance-find procedures are absent.	–

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Institutional and IMC planning (**OS1, OS2, S1, S6**)	Governance	Weak institutional clarity may affect scheme sustainability.	–
M&E systems development (**OS1, S1**)	Monitoring	Poor tracking of environmental and social performance where indicators are not established.	–
CONSTRUCTION PHASE			
Earthworks, excavation and canal lining (**OS1, OS3, OS4, S2, S5**)	Soil and land	Soil erosion, structural instability and disturbed surfaces during excavation.	–
Construction traffic and machinery operations (**OS4, S5**)	Community safety	Increased risk of accidents involving community members and livestock.	–
Workers' camps and contractor mobilisation (**OS5, S4, S3**)	Labour and SEAH	SEAH risks, labour rights violations or unsafe living conditions.	–
Fuel storage and chemical handling (**OS4, S5**)	Pollution	Hydrocarbon leaks may contaminate soil and water resources.	–
Construction noise and dust (**OS1, OS4, S5**)	Air quality	Increased respiratory irritation and discomfort for nearby communities.	–

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Vegetation clearance for access (**OS3, S2**)	Biodiversity	Loss of vegetation, wildlife disturbance or reduced habitat cover.	–
Foundation works near water bodies (**OS3, S5**)	Water quality	Elevated sediment loads affecting aquatic ecosystems.	–
Installation of pipelines and pumping units (**OS4, S5**)	Occupational safety	Potential for trench collapse, falling objects or machinery accidents.	–
Construction near cultural areas (**OS1, S3**)	Cultural heritage	Disturbance to unrecorded archaeological or cultural artefacts.	–
Temporary water abstraction (**OS1, OS3, S2**)	Hydrology	Temporary changes to downstream flow patterns.	–
Presence of non-local labour (**OS5, S3, S4, S6**)	Social stability	Community tension risks, petty crime or pressure on local services.	–
Waste generation during works (**OS4, S5**)	Waste	Accumulation of rubble, metal scrap, plastics and concrete waste.	–
Temporary disruption of access routes (**OS4, S5**)	Mobility	Reduced access for farmers, schoolchildren and health emergencies.	–
OPERATION PHASE			

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Continuous water abstraction (**OS1, OS3, S2, S9**)	Water resources	Reduced river flow and pressure on aquatic ecosystems during the dry season.	–
Use of fertilisers and pesticides (**OS4, S5, S2**)	Pollution	Contamination risk for surface and groundwater from agrochemicals.	–
Long-term irrigation and drainage (**OS3, S2**)	Soil health	Waterlogging, salinisation and nutrient imbalance if drainage is inadequate.	–
Increased agricultural production (**OS1, S1**)	Livelihoods	Improved household food security, incomes and market participation.	+
Functioning of improved irrigation infrastructure (**OS1, S2**)	Agricultural efficiency	Greater reliability in water delivery and improved crop performance.	+
IMC-led governance and operations (**OS1, OS2, S6, S7**)	Governance	Disputes may arise over water scheduling, fees or plot reallocation.	–
Operation staff presence (**OS5, S4**)	Labour	OHS incidents may occur where safety culture weakens.	–
Exposure to stagnant water (**OS1, S5**)	Community health	Increased malaria, bilharzia or water-borne disease risks.	–

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Conflicts over water access (**OS2, S7**)	Social cohesion	Tensions during peak irrigation demand periods.	–
Improved market linkages (**OS1, S1**)	Livelihoods	Higher purchasing power and better engagement with buyers.	+
Climate-related disruptions (**OS1, OS4, S9**)	Climate resilience	Disruption to irrigation cycles from droughts, heatwaves or flooding.	–
DECOMMISSIONING PHASE			
Removal of pumps, pipes and structures (**OS1, OS4, S5**)	OHS	Injury risks during dismantling and heavy lifting.	–
Disposal of obsolete infrastructure (**OS4, S5**)	Waste and pollution	Potential contamination from oils, metals or hazardous materials.	–
Restoration of land surfaces (**OS1, OS3, S2**)	Landscape	Possible soil disturbance but opportunities for natural recovery if well managed.	+/–
Loss of irrigation benefit (**OS2, S7**)	Livelihoods	Reduced production and income if closure is unmanaged.	–
Formation of excavations or pits (**OS3, S2**)	Safety	Drowning hazards, mosquito breeding sites or injury risks.	–

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
Community tensions over asset redistribution (**OS1, S3, S6**)	Social stability	Risk of disputes if closure and handover processes lack transparency.	–
Repurposing of land post-closure (**OS1, S1**)	Reuse potential	Positive opportunities for new community or agricultural activities.	+

Table 23: Cumulative Impacts

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
Combined water abstraction across multiple schemes (OS1, OS3, S2, S9)	Water resources	Gradual reduction in flow volumes during dry seasons when several schemes draw simultaneously, affecting downstream users and ecosystems.	–
Expansion of irrigated land and intensified cropping across districts (OS1, S1)	Livelihoods	Sustained improvement in household food security and incomes from multiple functioning schemes.	+
Repeated pesticide and fertiliser use across multiple irrigation blocks (OS4, S5, S2)	Pollution	Long-term buildup of agrochemical residues in soils and waterways, increasing contamination risks.	–
Multiple construction sites operating within short timeframes (OS4, S5)	Community safety	District-wide increase in heavy traffic, construction noise and accident risks on shared rural roads.	–

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
Aggregated vegetation clearance from scheme rehabilitations (OS3, S2)	Biodiversity	Fragmentation of natural vegetation, reduced habitat connectivity and increased pressure on wildlife movement corridors.	–
Cumulative effects of soil disturbance from trenching, excavation and maintenance (OS1, OS3, S2)	Soil stability	Increased erosion, gully formation and sedimentation in streams across several catchments.	–
Combined effect of multiple schemes discharging into shared waterways (OS3, OS4, S5)	Water quality	Cumulative sediment loads and runoff from widely distributed infrastructure works affecting water clarity and aquatic life.	–
Simultaneous presence of non-local labour across multiple districts (OS5, S3, S4, S6)	Social stability	Increased district-level social tensions, pressures on local services, and heightened SEAH risks.	–
Multiple IMCs operating with different governance capacities (OS1, OS2, S6, S7)	Governance	Uneven scheme performance and increased conflict where governance capacity varies across schemes.	–
Cumulative change in drainage patterns from multiple rehabilitated schemes (OS1, OS4, S9)	Climate resilience	District-level increase in flood risk or waterlogging if drainage canals across schemes redirect water unsustainably.	–
Combined benefits of market linkage improvements from several irrigation schemes (OS1, S1)	Rural economy	Stronger local economies driven by increased volume of produce reaching district and provincial markets.	+
Aggregated canal water bodies across districts (OS1, S5)	Community health	Higher cumulative exposure to malaria vectors and waterborne diseases as canals and drains increase.	–

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
District-wide improvements in infrastructure reliability (OS1, S1)	Agricultural efficiency	More reliable production cycles, improved market consistency and expanded value chain participation.	+
Cumulative decline in natural wetlands from uncoordinated abstraction (OS3, S2)	Ecosystem services	Progressive wetland shrinkage reducing water purification, flood buffering and grazing resources.	–
Joint impact of multiple schemes on groundwater recharge (OS1, OS3, S2)	Hydrology	Reduced recharge in some zones due to concentrated withdrawals or poorly planned drainage systems.	–
Long-term increase in district-wide agricultural output (OS1, S1)	Livelihood opportunities	Strong, sustained growth in household incomes and district agricultural GDP driven by improved irrigation.	+

The significance of potential environmental and social impacts associated with the RACP was evaluated using the impact scoring approach. Each potential impact was scored for magnitude, duration, sensitivity, probability and spatial extent to produce a total score indicating its significance before mitigation. The same criteria were then applied after incorporating mitigation measures to determine the residual significance. Present the impact assessment and analysis for each project phase, Table 24 to Table 25.

Table 24: RACP Project Impact Rating

Phase	Aspect	Mag	Dur	Scale	Prob	SP	Significance	Reversibility	Res Mag	Res Dur	Res Scale	Res Prob	Res SP	Residual Significance
Planning	Social inclusion	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Planning	Water resources	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Land access	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Biodiversity	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Climate and disaster risk	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Planning	Soil and landscape	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Labour conditions	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Gender and protection	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Planning	Community safety	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Participation	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Grievances	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Climate resilience	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Planning	Pollution	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low

Phase	Aspect	Mag	Dur	Scale	Prob	SP	Significance	Reversibility	Res Mag	Res Dur	Res Scale	Res Prob	Res SP	Residual Significance
Planning	Cultural heritage	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Governance	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Planning	Monitoring	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Soil and land	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Community safety	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Construction	Labour and SEAH	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Construction	Pollution	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Air quality	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Biodiversity	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Water quality	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Occupational safety	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Construction	Cultural heritage	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Hydrology	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Social stability	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Construction	Waste	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low

Phase	Aspect	Mag	Dur	Scale	Prob	SP	Significance	Reversibility	Res Mag	Res Dur	Res Scale	Res Prob	Res SP	Residual Significance
Construction	Mobility	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Operation	Water resources	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Operation	Pollution	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Operation	Soil health	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Operation	Livelihoods (positive)	7	4	4	3	45	Moderate positive	Reversible	8	4	4	3	48	Moderate positive
Operation	Agricultural efficiency (positive)	7	4	4	3	45	Moderate positive	Reversible	8	4	4	3	48	Moderate positive
Operation	Governance	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Operation	Labour	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Operation	Community health	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Operation	Social cohesion	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Operation	Climate resilience	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Decommissioning	OHS	8	3	3	4	56	High	Reversible	5	2	2	3	27	Moderate
Decommissioning	Waste and pollution	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Decommissioning	Landscape	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low

Phase	Aspect	Mag	Dur	Scale	Prob	SP	Significance	Reversibility	Res Mag	Res Dur	Res Scale	Res Prob	Res SP	Residual Significance
Decommissioning	Livelihoods	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Decommissioning	Safety	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Decommissioning	Social stability	6	3	3	3	36	Moderate	Reversible	4	2	2	2	16	Low
Decommissioning	Reuse potential (positive)	7	3	3	3	39	Moderate positive	Reversible	8	3	3	3	42	Moderate positive

Table 25: Cumulative Impact Rating

Aspect	**Magnitude**	**Duration**	**Scale**	**Probability**	**SP**	**Significance**	**Reversibility**	**Res Mag**	**Res Dur**	**Res Scale**	**Res Prob**	**Res SP**	**Residual Significance**
Water resources – combined abstraction	8	5	5	4	72	High	Reversible	6	4	4	3	42	Moderate
Livelihoods – expanded irrigated land (positive)	7	5	5	4	68	High Positive	Reversible	8	5	5	4	72	High Positive
Pollution – cumulative agrochemical use	8	5	4	4	68	High	Reversible	5	4	3	3	36	Moderate
Community safety – multiple construction sites	8	4	5	4	68	High	Reversible	5	3	3	3	33	Moderate
Biodiversity – aggregated vegetation clearing	7	5	4	4	64	High	Partially reversible	5	3	3	3	33	Moderate

Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Res Mag	Res Dur	Res Scale	Res Prob	Res SP	Residual Significance
Soil stability – cumulative disturbance	7	4	4	4	60	High	Reversible	5	3	3	3	33	Moderate
Water quality – combined scheme discharges	7	4	4	4	60	High	Reversible	4	3	3	3	30	Moderate
Social stability – simultaneous non-local labour	8	4	4	4	64	High	Reversible	5	3	3	3	33	Moderate
Governance – uneven IMC capacity	6	5	4	4	60	High	Reversible	4	3	3	3	30	Moderate
Climate resilience – cumulative drainage changes	8	5	5	4	72	High	Reversible	5	3	3	3	33	Moderate
Rural economy – aggregated market improvements (positive)	7	5	5	4	68	High Positive	Reversible	8	5	5	4	72	High Positive
Community health – expanded canal systems	7	5	5	4	68	High	Reversible	5	3	3	3	33	Moderate
Agricultural efficiency – district-wide reliability (positive)	7	5	5	4	68	High Positive	Reversible	8	5	5	4	72	High Positive
Ecosystem services – cumulative wetland decline	8	5	5	4	72	High	Partially reversible	5	3	3	3	33	Moderate

Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Res Mag	Res Dur	Res Scale	Res Prob	Res SP	Residual Significance
Hydrology – reduced groundwater recharge	7	4	5	4	64	High	Reversible	5	3	3	3	33	Moderate
Livelihood opportunities – district output growth (positive)	7	5	5	4	68	High Positive	Reversible	8	5	5	4	72	High Positive

6.0 MITIGATION MEASURES

- Impact Mitigation Matrix covering 9 key SECAP areas:
    - Environment and Natural Resources
    - Climate Change Adaptation
    - Biodiversity and Ecosystems
    - Water Resources
    - Land and Soils
    - Cultural Heritage
    - Social Inclusion (Gender/Youth)
    - Health, Safety and Wellbeing
    - Conflict Prevention

6.1 Specific Impact Mitigation Measures

The following phase-specific mitigation and enhancement measures translate AfDB ISS (2023), IFAD SECAP (2021) and Zimbabwean law into clear, implementable actions for RACP. Each measure directly addresses its paired impact and specifies responsibility, verification and the primary compliance reference (Table 26 to Table 29)

Table 26: Planning Phase Mitigation Measures

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Social inclusion (OS1, OS2, S1, S6)	Exclusion of women, youth, vulnerable households	Conduct inclusive consultations; ensure 50% women and 30% youth participation; publish plot allocation criteria	% of women/youth attending; displayed notices	Registers; minutes; photos	Consultation meetings	400	32	12,800
		Public notices	Number of notices displayed	Inspection records	Public notices	30	32	960
Water resources (OS1, OS3, S2, S9)	Over-abstraction affecting downstream users	Conduct hydrological assessments; install staff gauges; set abstraction caps;	Abstraction within limits; gauges installed	Hydrology report; photos	Hydrological assessment	500	32	16,000

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
		coordinate with ZINWA						
		Install staff gauges	Number of gauges installed	Inspection logs	Staff gauges	120	32	3,840
Land access (OS2, S7)	Restricting grazing routes/footpaths	Map pathways; design alternative routes; install crossings	Number of rerouted paths; crossings installed	GIS maps; inspection logs	GPS mapping	500	32	16,000
Biodiversity (OS3, S2)	Encroachment into riparian/wetland areas	Maintain 10–30 m buffer zones; plant indigenous vegetation	Buffer zones marked; planted vegetation	Maps; planting registers	Indigenous seedlings	50	150	7,500
Climate and disaster risk	Risk of flooding or waterlogging	Elevate pump houses by 0.5–1 m;	Elevated structures;	Engineering drawings; approvals	Drainage design	800	32	25,600

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
(OS1, OS4, S5, S9)		design drainage channels	drainage designed					
		Pump house elevation	Elevation completed	Inspection reports	Pump house elevation	1,000	32	32,000
Soil and landscape (OS1, OS3, S2)	Erosion and degradation from borrow pits	Vetiver planting (2 rows/contour, 15 cm spacing); pit rehabilitation	Vetiver rows installed; pit restoration	Photos; inspection reports	Vetiver grass planting	2	2,000 m	4,000
		Close borrow pits	Number of pits rehabilitated	Inspection logs	Pit rehabilitation	300–600	1	300–600
Labour conditions (OS5, S4)	Unsafe or poorly planned labour systems	Prepare Labour Management Plan (LMP); provide PPE; conduct inductions	PPE compliance; approved LMP	PPE registers; LMP file	PPE kits	50	50 workers	2,500

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Gender and protection (OS1, OS5, S3)	Increased risk of sexual exploitation, abuse, and harassment (SEAH)	Develop SEAH Action Plan; conduct training; install solar lighting; provide separate toilets	Training sessions held; lighting installed	SEAH logs; inspection notes	SEAH training	500	32	16,000
		Distribute SEAH awareness posters	Number of posters displayed	Inspection records	SEAH posters	10	32	320
Community safety (OS4, S5)	Traffic accidents	Enforce speed limits; install traffic signs; reroute traffic	Speed limit signs posted; accident reports	Site inspections	Speed limit signs	100	32	3,200
Participation (OS1, S6)	Poor stakeholder engagement	Implement Stakeholder Engagement Plan	Meetings held; translations available	SEP; meeting minutes	Quarterly meetings	200	32	6,400

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
		(SEP); hold quarterly meetings						
		Provide translation services	Number of documents translated	Translation records	Translation service	150	3	450
Grievances (OS1, OS2, OS5, S6, S7)	Lack of early grievance handling	Establish Grievance Redress Mechanism (GRM); train committee; install GRM box	GRM functional; cases resolved	GRM logs; photos	GRM training	200	32	6,400
		Publicise GRM hotline	Number of calls logged	Communication records	GRM box	80	32	2,560
Climate resilience	Unmanaged drought/flood risks	Use climate screening tools;	Climate measures integrated	Screening report; site photos	Climate screening	1,000	32	32,000

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
(OS1, OS4, S9)		install drainage culverts						
		Construct culverts	Number of culverts installed	Inspection reports	Culverts	500	32	16,000
Pollution (OS4, S5)	Risk of pesticide contamination	Design impermeable chemical store; include integrated pest management	Store construction complete; IPM executed	Store inspection	Chemical store	2,000	32	64,000
Cultural heritage (OS1, S3)	Damage to unrecorded cultural heritage	Conduct heritage screening; incorporate chance-find procedures in contracts	Heritage screening report available	Contractor files	Heritage screening	-	-	-

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Governance (OS1, OS2, S6)	Weak Irrigation Management Committee (IMC) capacity	Train IMC; develop Governance Manual; provide finance skills training	Number trained; manual delivered	IMC registers; manual	IMC training	200	32	6,400
Monitoring (OS1, S1)	Weak environmental and social monitoring	Develop Monitoring and Evaluation (MandE) plan; install water meters	Reports produced; meters functional	MandE plan; meter logs	Water meter installation	TBD	32	TBD

Table 27: Construction Phase Mitigation Measures

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
OHS (OS5, S4)	High accident risk during dismantling of pumps, pipes, structures, and electrical components.	• Prepare a decommissioning OHS Plan; isolate electricity before dismantling • Provide PPE sets (helmets, goggles, gloves, boots at 35 USD/month per worker) • Install temporary barricades around dismantling zones (50 USD/set) • Conduct daily toolbox talks and safe-lifting briefings	PPE usage; toolbox talks conducted; barricades installed	OHS logs; induction registers; site inspection	PPE kits	35	10 workers × 2 months × 32	22,400
					Barricade sets	50	3 sets/site × 32	4,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
					Toolbox materials	20	10 sessions/site × 32	6,400
Waste and Pollution (OS4, S5)	Waste metal, oil, lubricants, pipes, and hazardous residues.	• Remove pumps, pipes, and metals and store in segregated piles • De-oil pumps before disposal • Collect all waste oils in sealed drums (45 USD each) • Hire licensed hazardous waste collector (150 USD/site)	Quantity of waste removed; hazardous waste safely stored	Waste manifests; disposal receipts	Waste oil drums	45	2 drums/site × 32	2,880
					Hazardous waste collection	150	32	4,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
					Scrap sorting labour	100	32	3,200
Landscape (OS3, S2)	Open pits, trenches, degraded lands, and exposed surfaces.	• Backfill all trenches with compacted soil • Regrade uneven surfaces to natural contour • Plant vetiver grass (2 USD/m) and indigenous shrubs • Remove temporary foundations and rubble	Trenches backfilled; surfaces restored; vegetation established	Site inspection; photo log	Backfilling works	300	32	9,600
					Vetiver planting	2	200 m/site × 32	12,800
					Shrub seedlings	1	150/site × 32	4,800
Livelihoods (OS2, S7)	Sudden loss of irrigation-based	• Conduct decommissioning	Number of households	Meeting minutes;	Consultation meetings	400	1/site × 32	12,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	jobs, crop income, and market access.	stakeholder meetings (400 USD/site) • Facilitate linkages to alternative livelihoods (beekeeping, poultry, gardens) • Provide farmer transition advisory support	supported; transitional plans documented	beneficiary lists				
					Transition advisory sessions	300	1/site × 32	9,600
Safety (OS4, S5)	Community hazards from open excavations, unstable structures, debris.	• Secure all pits with backfilling • Remove loose pipes, metal, and hazardous debris • Install warning signs until restoration is complete (50 USD each)	Hazards removed; warning signs posted	Clearance certificates; site visit reports	Warning signs	50	3/site × 32	4,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
					Debris removal	150	32	4,800
Social Stability (OS1, S6)	Conflicts over redistributed assets or unclear handover.	• Conduct transparent asset-handover meetings • Update IMC and RDC on asset ownership • Publicly display asset distribution lists	Number of disputes recorded; lists posted	GRM logs; handover reports	Asset handover meetings	300	1/site × 32	9,600
					Public display boards	50	1/site × 32	1,600
Reuse Potential (OS1, OS2, S6)	Missed opportunities for productive reuse (gardens,	• Map infrastructure to identify salvageable components • Hand over functional assets for community reuse • Provide	Reuse plans developed; reused structures documented	Reuse plans; photos	Reuse mapping	250	32	8,000

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	storage, livestock).	simple reuse design concepts for each site						
					Community handover workshops	300	1/site × 32	9,600

Table 28: Operation Phase Mitigation Measures

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
Water resources (OS1, OS3, S2, S9)	Over-abstraction causing reduced flows, conflicts	• Install water meters at abstraction points (**150 USD each**)	Meter readings; water schedules	IMC logs; meter logs; ZINWA reports	Water meters	150 / meter	1 meter/site × 32	4,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	and drying of wetlands.	• Enforce rotational irrigation schedules (posted weekly) • Maintain staff gauges at weirs • IMC–ZINWA joint monitoring every month	posted; gauge levels stable					
					Staff gauge maintenance	30 / check	12 checks/site/year × 32	11,520

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
Pollution (OS4, S5)	Contamination from agrochemicals, oils, fertilisers entering canals or soils.	• Construct pesticide wash-down bay with soak-away (300 USD). • Promote IPM and biological control methods. • Safe chemical store per site with raised pallets. • Triple-rinse containers and	Number of wash bays, IPM adoption rate; container disposal records.	IPM records; store inspection; chemical logs.	Wash-down bay.	300 / unit	1/site × 32	9,600

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		puncture before disposal.						
					Chemical store upgrades	250 / upgrade	32	8,000
Soil health (OS3, S2)	Waterlogging, salinisation, decline in soil fertility.	• Annual soil testing (**30–60 USD per test**). • Maintain drainage canals 0.5 m deep. • Promote crop rotation and	Soil test results; drainage maintained; crop rotation adopted.	Soil lab reports; IMC field logs.	Soil testing	45 / test	3 tests/site × 32	4,320

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		liming where pH < 5.5. • Install field moisture monitoring tools (tensiometers – 45 USD each).						
					Tensiometers	45 / device	4/site × 32	5,760
Livelihoods (OS1, S1)	Increased production and income variability due to market shocks	• Establish contract farming linkages • Train farmers in agronomy and	Farmer income trends; training sessions delivered	Training registers; VBU reports	Agronomy and livelihood training	500 / session	2 sessions/site × 32	32,000

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	and input shortages.	business skills (500 USD/session) • Develop crop calendars with climate-matched varieties						
Agricultural efficiency (OS1, S1)	Canal blockage, pump breakdowns, water losses.	• Quarterly pump maintenance (150 USD/servicing) • Clean canals bi-weekly using farmer groups • Install canal						

Table 29: Decommissioning Phase Mitigation Measures

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
OHS (OS5, S4)	High accident risk during dismantling of pumps, pipes, structures and electrical components.	• Prepare a decommissioning OHS Plan; isolate electricity before dismantling • Provide PPE sets (helmets, goggles, gloves, boots – 35 USD/month per worker) • Install temporary barricades around dismantling zones (50 USD/set)	PPE usage; toolbox talks conducted; barricades installed	OHS logs; induction registers; site inspection	PPE kits	35 / worker/month	10 workers × 2 months × 32	22,400

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		• Conduct daily toolbox talks and safe-lifting briefings						
					Barricade sets	50 / set	3 sets/site × 32	4,800
					Toolbox materials	20 / session	10 sessions/site × 32	6,400
Waste and pollution (OS4, S5)	Waste metal, oil, lubricants, pipes and hazardous residues.	• Remove pumps, pipes, and metals and store in segregated piles	Quantity of waste removed; hazardous	Waste manifests; disposal receipts	Waste oil drums	45 / drum	2 drums/site × 32	2,880

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		• De-oil pumps before disposal • Collect all waste oils in sealed drums (45 USD each) • Hire licensed hazardous waste collector (150 USD/site)	waste safely stored					
					Hazardous waste collection	150 / site	32	4,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
					Scrap sorting labour	100 / site	32	3,200
Landscape (OS3, S2)	Open pits, trenches, degraded lands and exposed surfaces.	• Backfill all trenches with compacted soil • Regrade uneven surfaces to natural contour • Plant vetiver grass (2 USD/m) and indigenous shrubs to stabilise soil	Trenches backfilled; surfaces restored; vegetation established	Site inspection; photo log	Backfilling works	300 / site	32	9,600

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		• Plant vetiver grass (2 USD/m) and indigenous shrubs to stabilise soil						
					Vetiver planting	2 / meter	200 m/site × 32	12,800
					Shrub seedlings	1 / seedling	150/site × 32	4,800
Livelihoods (OS2, S7)	Sudden loss of irrigation-based jobs, crop income and market access.	• Conduct decommissioning stakeholder meetings (400 USD/site)	Number of households supported; transitional	Meeting minutes; beneficiary lists	Consultation meetings	400 / meeting	1/site × 32	12,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		• Facilitate linkages to alternative livelihoods (beekeeping, poultry, gardens) • Provide farmer transition advisory support	plans documented					
					Transition advisory sessions	300 / session	1/site × 32	9,600
Safety (OS4, S5)	Community hazards from	• Secure all pits with backfilling	Hazards removed;	Clearance certificates;	Warning signs	50 / sign	3/site × 32	4,800

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	open excavations, unstable structures, debris.	• Remove loose pipes, metal, and hazardous debris • Install warning signs until restoration is complete (50 USD each)	warning signs posted	site visit reports				
					Debris removal	150 / site	32	4,800
Social stability (OS1, S6)	Conflicts over redistributed assets or	• Transparent asset-handover meetings	Number of disputes recorded; lists posted	GRM logs; handover reports	Asset handover meetings	300 / meeting	1/site × 32	9,600

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	unclear handover.	• Update IMC and RDC on asset ownership • Publicly display asset distribution lists.						
					Public display boards	50 / board	1/site × 32	1,600
Reuse potential (OS1, OS2, S6)	Missed opportunities for productive reuse (gardens,	• Map infrastructure to identify salvageable components.	Reuse plans developed; reused structures documented	Reuse plans; photos	Reuse mapping	250 / site	32	8,000

Aspect (OS and S Triggers)	Impact Description	Detailed Mitigation Measures (Technical and Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
	storage, livestock).	• Provide simple reuse design concepts for each site.						
					Community handover workshops	300 / workshop	1/site × 32	9,600

This ESMP operationalises the findings of the RACP Environmental and Social Impact Assessment and provides a structured framework to prevent, minimise, mitigate and monitor adverse environmental and social impacts while enhancing positive benefits. It clearly defines roles and responsibilities, measurable indicators, capacity-building requirements and an implementation budget in line with the Environmental Management Act [Chapter 20:27], AfDB Integrated Safeguards System (2023), and IFAD SECAP (2021). Table 30 shows the responsibilities under the ESMP

Table 30: Responsibilities under the ESMP

Actor	**Core Responsibilities under the ESMP**
Project Implementation Unit (PIU).	Overall ESMP coordination, contracting and supervising contractors; maintaining safeguard documentation; consolidating monitoring reports; liaising with EMA, ZINWA, RDCs and financiers.
Contractors / Service Providers.	Implement site-specific mitigation and monitoring measures; train workers; maintain records (PPE, incidents, waste manifests); comply with permits and codes of conduct.
Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD).	Provide overall policy and strategic oversight for RACP; ensure ESMP requirements are reflected in sector plans and budgets; approve key safeguards decisions; support enforcement of ESMP compliance by PIU and implementing partners; facilitate coordination between national agencies and district structures; champion capacity building for safeguards.
Environmental Management Agency (EMA).	Regulate and enforce compliance with the Environmental Management Act (Chapter 20:27) and SI 7 of 2007; review and clear ESMP and any addenda; issue licences/permits relevant to project activities; conduct environmental inspections and compliance audits; require corrective actions and apply sanctions where necessary; provide technical guidance on pollution prevention, waste and rehabilitation.
Local Authorities (Rural District Councils and	Integrate ESMP measures into local development plans and approvals; provide land-use consents and by-law

Actor	Core Responsibilities under the ESMP
District Development Coordinators' Offices).	enforcement; support community mobilisation, disclosure of ESMP information and stakeholder meetings; participate in monitoring missions and grievance resolution; coordinate with traditional leaders and local committees on environmental and social issues.
AGRITEX and other line departments.	Provide technical support on climate-smart agriculture, soil and water conservation, IPM and rangeland management; support farmer training and awareness on ESMP requirements; participate in field monitoring of on-farm measures; advise IMCs/WUAs and RDCs on adaptive management actions where gaps are identified.
Irrigation Management Committees (IMCs) and Water User Associations (WUAs).	Operationalise ESMP measures at scheme level; oversee daily scheme operation and basic maintenance with attention to environmental, social and OHS requirements; ensure adherence to water allocation rules and good housekeeping; keep records of minor incidents and grievances; support GRM implementation; report ESMP implementation status to PIU and RDCs.
African Development Bank (AfDB).	Apply the Integrated Safeguards System (ISS, 2023) to all financed activities; review and clear the ESMP and associated plans; assess safeguard instruments during appraisal; conduct supervision missions and safeguards performance reviews; review periodic environmental and social monitoring reports; agree on and monitor implementation of any corrective action plans with the borrower.
International Fund for Agricultural Development (IFAD).	Apply Social, Environmental and Climate Assessment Procedures (SECAP); review and endorse ESMP and thematic plans (e.g., LMP, SEP, IPM); participate in joint supervision and implementation support missions; review safeguards reporting and GRM performance; support

Actor	Core Responsibilities under the ESMP
	capacity building on social inclusion, gender, youth, climate risk management and community engagement.

6.2 Associated Management Plans

The Associated Management Plans prepared for the RACP collectively translate the project's environmental and social commitments into practical on-the-ground actions. They include the Integrated Pest Management Plan, Labour Management Plan, Stakeholder Engagement Plan, Climate Risk Management Plan, Waste and Pollution Management Plan, and the Occupational Health and Safety Plan. Together, these plans define objectives, scope, legal and policy frameworks, and key measures to prevent or mitigate adverse impacts, enhance positive outcomes, and ensure compliance with Zimbabwean legislation and international safeguard standards (AfDB ISS and IFAD SECAP). Each plan sets out clear actions and measures to make the project's environmental and social performance auditable and enforceable throughout all phases of implementation.

6.2.1 Integrated Pest Management (IPM) Framework for RACP

The Integrated Pest Management Plan is essential for safeguarding human health, ecosystems and water quality as irrigation intensification often leads to higher agrochemical use. It outlines ecologically sound pest management practices for all RACP-supported schemes and input suppliers, ensuring compliance with Zimbabwean law and international pesticide codes. The detailed IPMP is presented in Appendix 19

Pest pressures in the project areas, particularly *Spodoptera frugiperda*, *Tuta absoluta*, aphids, whiteflies and fruit flies, are intensified by irrigated agriculture and continuous crop production. Without a structured Integrated Pest Management (IPM) approach, these pests may lead to chemical overuse, exposure risks, contamination of irrigation water, loss of beneficial organisms, and potential non-compliance with safeguard requirements.
The ESMP therefore adopts IPM as the mandatory framework for all agricultural activities supported by the project.

The project promotes preventive and ecological management as the primary defence. Farmers and VBUs are required to practice crop rotation, intercropping, residue destruction, synchronised planting and improved field hygiene to suppress pest build-up. Biological and mechanical methods, such as the use of *Bacillus thuringiensis*, *Beauveria bassiana*, pheromone

traps and hand removal, are prioritised before any chemical intervention. These methods help reduce reliance on pesticides, protect natural enemies and maintain environmental balance within irrigation intensification zones.

Chemical pesticides are only considered when pest populations exceed economic thresholds and when safer alternatives are ineffective. All pesticides must be on the DRSS Registered List and must exclude Highly Hazardous Pesticides, persistent organic pollutants, unregistered chemicals and any product prohibited under AfDB or IFAD safeguards. Products such as aldicarb, monocrotophos, endosulfan, methamidophos and lindane are strictly prohibited. Any approved pesticide must be handled with full PPE, mixed away from water sources, applied using calibrated equipment and recorded in spray registers.

Safe storage and disposal are mandatory ESMP requirements. All VBUs and scheme committees must operate a secure pesticide storage room with ventilation, shelving, hazard signage and restricted access. Empty containers must be triple-rinsed, punctured and disposed of in designated pits or returned to suppliers as guided by EMA. Pesticide waste must never be buried near canals, wells, boreholes or water bodies.

Monitoring and reporting are central to ESMP implementation. Farmers and block scouts conduct weekly scouting to document pest presence, severity and recommended actions. Extension officers verify field conditions monthly using standardised IPM monitoring tools and compile district summaries on pest trends, pesticide use, storage conditions and compliance with IPM principles. Quarterly multisectoral inspections by EMA, DRSS, AGRITEX and Veterinary Services ensure adherence to environmental and human-health standards. These monitoring results feed into the ESMP's adaptive management cycle, allowing early identification of risks and timely corrective interventions.

Institutional responsibilities are clearly defined. Farmers practise daily IPM actions. VBU and Irrigation Management Committees maintain records, storage facilities and enforcement of scheme rules. AGRITEX officers provide technical guidance, lead inspections and train farmers. DRSS provides diagnostic support and updates on approved pesticides. EMA ensures environmental compliance, particularly regarding hazardous substances and waste. The district and provincial project teams provide oversight, while the Project Management Unit ensures resource allocation and safeguard compliance.

The ESMP integrates a grievance redress mechanism to address pesticide-related complaints such as spray drift, water contamination, unsafe handling, poisoning incidents or storage

concerns. Complaints raised at VBU or scheme level must be resolved promptly or escalated to district and provincial levels if unresolved. All grievances must be recorded and reported as part of ESMP compliance monitoring.

By embedding a full Integrated Pest Management system into the ESMP, the project ensures that agricultural intensification occurs in a safe, sustainable and environmentally responsible manner. This enhances climate resilience, minimises health risks, protects water resources and ensures full alignment with AfDB, IFAD and EMA requirements.

Table 31summarises the IPMP's scope, legal framework and key measures and the detailed IPMP is presented in Appendix 19.

Table 31: IPMP's Scope, Legal Framework and Key Measures

Plan Title &and Objective	Scope and Legal Framework	Key Actions and Measures
Integrated Pest Management (IPM) Framework Objective: **Prevent environmental contamination and protect human and animal health while maintaining crop productivity through ecologically sound pest management practices.**	**Scope:** Applies to all RACP-supported activities, including all rehabilitated and new irrigation schemes, participating outgrower farmers, and project-linked agro-dealers and input supply chains. **Guiding Framework:** Zimbabwe's Environmental Management Act [Cap 20:27]; Fertilisers, Farm Feeds, and Remedies Act [Cap 18:12]; FAO/WHO International Code of Conduct on Pesticide Management; National IPM Strategy. **Model for Replication:** The successful IPM model of the Chomutamba Irrigation Scheme (Midlands West), developed with AGRITEX	**Policy and Procurement:** • Restrict procurement and use to approved pesticides; • Strictly prohibit WHO Class IA and Ib pesticides; • Align practices with the FAO/WHO Code of Conduct on Pesticide Management. **Pest Control Strategies (IPM Hierarchy):** • Promote prevention (crop rotation, pest-resistant varieties, field hygiene, timely planting); • Biological control (use of neem extracts, natural predators); • Mechanical control (traps, physical removal); • Chemical control as a last resort with selective and least hazardous approved pesticides. Safe Storage and Infrastructure:

	support, will serve as a benchmark.	• Establish central, lockable, ventilated, banded pesticide storage facilities at each major irrigation scheme; • Ensure all project-linked agro-dealers are licensed and EMA-compliant. **Training and Capacity Building:** • Train all farmers/applicators on IPM principles, safe handling, mixing and application techniques; mandate and train on correct PPE use and maintenance; • Include first aid measures for pesticide exposure in training modules. **Container and Waste Management:** • Establish pesticide container return schemes; containers must be triple-rinsed before return; • Partner with licensed waste contractors for recycling/disposal; • Prohibit burning, burying or re-use of containers; • Work with EMA on safe identification and disposal of obsolete stock.

6.3.1 Labour Management Plan (LMP)

The Labour Management Plan protects workers' rights, health and safety throughout the project cycle. Given RACP's reliance on contractors and local labour, the plan addresses fair wages, OHS, prohibition of child labour and gender-based violence. Table 32 presents the LMP's objectives, scope, legal framework Appendix 16.

Table 32: Labour Management Plan's

Objectives, Scope, Legal Framework and Key Actions

Plan Title & Objective	Scope and Legal Framework	Key Actions & Measures
Labour Management Plan (LMP) Objective: Ensure fair, safe and equitable working conditions for all project workers, prevent child and forced labour, and uphold occupational health and safety standards.	**Scope:** All project workers, including those employed by contractors, sub-contractors, and IMCs. **Legal Framework:** Zimbabwe Labour Act [Cap 28:01]; NSSA OSH Policy; NEC Agricultural Sector SI 97/2024; IFAD ESS5 & ESS6.	• Execute written employment contracts meeting the NEC minimum wage for the agricultural sector. • Enforce strict zero-tolerance for child (<18) and forced labour. • Implement a Code of Conduct prohibiting GBV/SEA with confidential reporting channels. • Establish a dedicated workers' GRM separate from community GRM. • Mandate site-specific OHS induction, regular toolbox talks, and provision/use of appropriate PPE.

6.3.2 Stakeholder Engagement Plan (SEP)

The Stakeholder Engagement Plan ensures transparent, inclusive and continuous dialogue with communities and institutions across the 4 project districts. It is critical for building trust, managing expectations and capturing the voices of women, youth and vulnerable groups. A detailed SEP is given in Appendix 17

The Stakeholder Engagement Plan (SEP) provides a structured framework for ensuring meaningful, transparent, and continuous engagement with all parties affected by or interested in the Resilience Agriculture Cluster Project (RACP) in Midlands. It builds on Zimbabwe's Environmental Management Act requirements and aligns with AfDB OS10 on Stakeholder Engagement and Information Disclosure and with IFAD SECAP standards for inclusive and participatory project implementation.

The SEP outlines systematic processes for identifying stakeholders, disclosing information, consulting affected communities, managing concerns, and ensuring that stakeholder inputs contribute to project design, mitigation, monitoring and adaptive management throughout the project cycle.

Objectives of the SEP

The SEP seeks to achieve the following:

- Provide timely, accessible, and culturally appropriate information to all stakeholders throughout the project lifecycle.
- Ensure that project-affected people including women, youth, farmers, vulnerable groups, and persons with disabilities have adequate platforms for raising concerns and influencing decision-making.
- Promote transparency, trust building and continuous dialogue between project stakeholders, institutions and communities.
- Establish and maintain a functional, easily accessible Grievance Redress Mechanism (GRM) for addressing issues promptly and fairly.
- Support compliance with AfDB OS10 and IFAD SECAP by documenting stakeholder views, incorporating them into mitigation measures, and reporting outcomes.

Key Stakeholder Groups

Stakeholders relevant to the project include:

- **Local communities and farmers** in the five irrigation schemes (Sessombe, Senkwasi, Wozoli, Milsonia and Igogo).
- **Traditional leadership** (village heads, Chiefs).
- **Local authorities** (RDCs, District Agritex Officers, Department of Mechanisation and Soil Conservation).
- **Catchment institutions** (ZINWA, WUAs).
- **Environmental regulators** (EMA).
- **Women, youth and vulnerable groups**, including persons with disabilities.
- **Project Implementation Unit (PIU)** under the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development.
- **IFAD and AfDB teams**, including environmental and social safeguards specialists.

Engagement Activities and Approach

Stakeholder engagement will be continuous and will include:

- Community meetings at scheme level to disclose project activities, impacts and mitigation measures.
- Targeted focus group discussions with youth, women, farmers affected by land adjustments, and vulnerable groups.
- Technical consultations with ZINWA, EMA, RDCs and WUAs on water management, environmental compliance and scheme governance.
- Regular district-level coordination meetings through existing agricultural and rural development structures.
- Periodic disclosure of project updates in English and Shona through noticeboards, meetings and district offices.
- Feedback sessions to communicate how community concerns have been addressed in the ESMP and implementation planning.

Engagements will be free from manipulation, intimidation, coercion or discrimination. They will take place in accessible venues, at times suitable for communities and in languages they understand.

Information Disclosure

Information will be disclosed throughout the project lifecycle, covering:

- Project description and timelines.
- Potential environmental and social impacts and planned mitigation measures.
- Rights and responsibilities of communities in relation to irrigation land, water use and construction works.
- Grievance channels and reporting procedures.
- Monitoring outcomes, scheme water balances, environmental compliance updates and safety risks.

Disclosure will utilise community meetings, printed materials, mobile messaging where applicable, and district offices.

Grievance Redress Mechanism (GRM)

A multi-tier GRM will be established at scheme, district and PIU levels to ensure timely resolution of grievances related to land access, compensation, safety, construction works, labour issues, environmental impacts, inclusion, and conflicts within WUAs. It will follow the guidance of the GRM plan laid out in Appendix 18.

The GRM will:

- Receive and log complaints using a standard template;
- Acknowledge receipt and provide feedback timelines;
- Investigate concerns with support from RDCs, Agritex, EMA or traditional leaders as needed;
- Provide timely resolution and document the process;
- Escalate unresolved cases to the PIU and thereafter to IFAD/ AfDB if necessary.

The GRM will protect confidentiality and ensure sensitivity to SEAH/GBV survivors and vulnerable persons.

Responsibilities for Implementation

- **PIU Environmental and Social Specialists**: oversee SEP implementation, reporting, GRM administration and compliance with AfDB/IFAD requirements.
- **District and Provincial Officers (Agritex, RDCs, Mechanisation, ZINWA)**: support consultations, awareness campaigns, environmental monitoring and mobilising communities.
- **Contractors**: engage with communities during construction, disclose work schedules, manage safety risks, and maintain a contractor-level GRM.
- **WUAs and IMCs**: ensure local coordination, disseminate information to farmers, and channel grievances.

Monitoring and Reporting

Monitoring indicators include:

- Number of engagement meetings held and stakeholder categories represented.
- Inclusion of women, youth, and vulnerable groups in decision-making.
- Number and resolution rate of grievances.
- Level of community satisfaction with information transparency and responsiveness.
- Corrective actions taken following stakeholder feedback.

Quarterly stakeholder engagement reports will be prepared and submitted through the PIU to IFAD and AfDB Table 33 summarises the SEP's scope, legal framework and key measures and delivers the detailed SEP is in Appendix 17: Stakeholder Engagement Plan.

Table 33: Stakeholder Engagement Plan's Scope, Legal Framework and Key Measures

Plan Title and Objective	**Scope and Legal Framework**	**Key Actions and Measures**
Stakeholder Engagement Plan (SEP) **Objective:** Ensure transparent, inclusive and continuous consultation with all project stakeholders, particularly vulnerable groups, throughout the project cycle.	**Scope:** All 4 project districts, their catchments, and all beneficiary irrigation schemes. **Legal Framework:** EMA Public Participation Guidelines; Rural District Councils Act; FPIC principles.	• Disclose project designs, schedules and budgets in local languages via public meetings and notice boards at schemes. • Use Ward Development Committees within RDCs as primary entry points for engagement. • Hold separate focus group discussions for women, youth and vulnerable households. • Establish and promote a multi-channel GRM accessible via phone, suggestion boxes and in-person reporting. • Maintain at least 50 % women and 30 % youth representation in scheme committees.

6.2.4 Climate Risk Management Plan

The Climate Risk Management Plan integrates climate resilience and disaster risk reduction into RACP's infrastructure and farming practices. It is needed to protect investments from floods, droughts and other hazards while enhancing adaptation benefits. Table 34 sets out the plan's scope, legal framework and principal actions.

Table 34: Climate Risk Management Plan's

Plan Title and Objective	Scope and Legal Framework	Key Actions and Measures
Climate Risk Management Plan **Objective:** Integrate climate resilience and disaster risk reduction into the design and operation of RACP infrastructure and agricultural practices.	**Scope:** All irrigation infrastructure, catchment restoration works and promoted farming activities. **Legal Framework:** Zimbabwe National Climate Policy (2016); Sendai Framework for DRR; NDCs.	• Conduct climate vulnerability screening (flood and drought) for all infrastructure final designs. • Engineer irrigation infrastructure to withstand 1-in-50-year flood events, with freeboard, overflow weirs and lined drains. • Install automated weather stations linked to MSD and IMCs for early warning. • Promote CSA including drought-tolerant crops, water harvesting ponds and tree planting with ≥70 % survival monitoring. • Include emergency procedures and evacuation plans in all construction and operations contracts.

Climate Change Adaptation Scenarios

Scenario A – No-Regret Measures (Moderate risk districts)

These practical, low-cost interventions deliver benefits under all climate scenarios. They are most applicable to irrigation schemes in areas such as **Sessombe and Milsonia**, where current climate risks (periodic dry spells, soil erosion, moderate temperature rises) can be managed with improved practices and governance without significant infrastructure overhaul.

Recommended Measures:

- **Canal lining and conversion to low-pressure irrigation systems** to reduce water losses and improve distribution efficiency.
- **Soil and water conservation techniques** such as mulching, contour ridging, infiltration pits, and vetiver grass strips to maintain soil moisture and reduce erosion during heavy rainfall events.
- **Formation and training of Water User Committees (WUCs)** to strengthen governance, implement water-sharing rules, and develop localised maintenance plans to reduce infrastructure failures.
- **Enhanced dissemination of seasonal forecasts and advisory information** through SMS alerts, local extension services, and farmer field schools to improve decision-making and reduce climate-related yield losses.

Scenario B – Climate-Robust Upgrade (Substantial risk districts)

These practical, low-cost interventions deliver benefits under all climate scenarios. They are most applicable to irrigation schemes in areas such as Sessombe and Milsonia, where current climate risks (periodic dry spells, soil erosion, moderate temperature rises) can be managed with improved practices and governance without significant infrastructure overhaul.

- Recommended Measures:
- Canal lining and conversion to low-pressure irrigation systems to reduce water losses and improve distribution efficiency.
- Soil and water conservation techniques such as mulching, contour ridging, infiltration pits, and vetiver grass strips to maintain soil moisture and reduce erosion during heavy rainfall events.
- Formation and training of Water User Committees (WUCs) to strengthen governance, implement water-sharing rules, and develop localised maintenance plans to reduce infrastructure failures.
- Enhanced dissemination of seasonal forecasts and advisory information through SMS alerts, local extension services, and farmer field schools to improve decision-making and reduce climate-related yield losses.

Scenario C – Transformational Resilience (Future high-risk conditions)

As climate variability intensifies and long-term projections point to more frequent extreme droughts, heat stress, and shifts in rainfall regimes, irrigation schemes in areas such as **Siyaso and downstream sections of Senkwasi and Wozoli** will require deep, systemic adaptation. These interventions transform production systems and landscape management, ensuring sustainability even under high-risk future climate scenarios.

Recommended Measures:

- **Transition to heat-tolerant and water-efficient crop varieties**, including drought-resistant cereals, legumes, and horticultural crops adapted to shifting temperature and rainfall conditions.
- **Investment in groundwater recharge systems** and large-scale **ecosystem restoration** initiatives (e.g., reforestation, wetland restoration, managed aquifer recharge) to stabilise hydrological cycles and enhance water security.
- **Deployment of solar-powered irrigation systems** integrated with smart controllers and water-demand management tools to reduce energy costs, mitigate load-shedding risks, and optimise water use.
- **Promotion of regenerative horticulture and landscape-level planning**, integrating agroforestry, conservation agriculture, and biodiversity corridors to build ecological resilience and restore degraded catchments.

6.2.5 Waste and Pollution Management Plan

The Waste and Pollution Management Plan prevents soil, water and air contamination from construction, agrochemical use and market activities. It is vital for maintaining environmental integrity and meeting EMA effluent and waste standards. Table 35 outlines the plan's scope, legal framework and key measures.

Table 35: Waste and Pollution Management Plan

Plan Title and Objective	Scope and Legal Framework	Key Actions and Measures
Waste and Pollution Management Plan	**Scope:** All project sites, including construction camps, markets, post-	• Provide segregated bin systems (recyclables, organic, general,

Plan Title and Objective	Scope and Legal Framework	Key Actions and Measures
Objective: Prevent and mitigate soil, water and air pollution from all project activities, ensuring responsible waste handling from cradle to grave.	harvest centres and irrigation schemes. **Legal Framework:** EMA SI 6/2007 (Waste Regulations); Public Health Act [Cap 15:09]; Fertilisers, Farm Feeds and Remedies Act.	hazardous) at all markets, camps and post-harvest centres. • Treat wastewater from post-harvest centres to meet EMA effluent standards before discharge. • Recover and dispose of hazardous waste (used oils, batteries, obsolete pesticides, PV panels) exclusively through EMA-licensed handlers; maintain disposal certificates. • Implement site-specific waste management plans approved by EMA before construction. • Conduct periodic water quality testing (BOD, COD, TDS) downstream of project sites.

6.2.6 Occupational Health and Safety (OHS) Plan

The Occupational Health and Safety Plan protects workers and nearby communities from accidents, injuries and diseases linked to project activities. It is needed to ensure safe construction sites, reduce liability and comply with NSSA and international safeguards. Table 36 summarises the plan's scope, legal framework and key actions.

Table 36: Occupational Health and Safety (OHS) Plan

Plan Title and Objective	Scope and Legal Framework	Key Actions and Measures
Occupational Health and Safety (OHS) Plan **Objective:** Protect all workers and nearby communities from	**Scope:** All project phases and all actors, including contractors, IMCs and project staff. **Legal Framework:** NSSA OSH Policy; Factories and	• Develop and obtain PIU approval for site-specific OHS plans before mobilisation. • Appoint safety representatives to perform daily inspections and monthly safety audits.

Plan Title and Objective	Scope and Legal Framework	Key Actions and Measures
accidents, injuries and diseases arising from project activities.	Works Act; Public Health Act; IFAD ESS6.	• Ensure 100 % provision and monitoring of mandatory PPE use. • Maintain first-aid kits with trained personnel on all sites and conduct regular emergency drills for fires, floods and chemical spills. • Implement traffic management plans with speed limits, signage and flagmen on site access roads. • Integrate GBV/SEA prevention protocols and referral systems into the OHS framework.

6.2.6 Grievance Redress Mechanism (GRM)

A Grievance Redress Mechanism (GRM) has also been proposed in the report that will be established before the commencement of construction activities in the project areas. The GRM will ensure that complaints of on-site workers and local communities, including other relevant stakeholders, regarding the following complaints are considered.

a) Complaints from the workers may include (but are not limited to):
    - On-site working conditions, including the health and safety of workers,
    - Issues related to wages and working hours,
    - Prevention and protection of child labour from hazardous work conditions,
    - Issue of forced labour,
    - Gender discrimination.

b) Complaints from market traders and local communities residing in project areas:
    - Issues related to trading spaces
    - Risks to community, health and safety (e.g., traffic),
    - Accidents (e.g., falling into open trenches),

- Unethical behaviour by Work Contractor or its sub-contractors,
- Noise/dust/air emissions or any other impact on the environment caused by the project or subcontractors,
- Issues related to cultural conflicts.

the detailed GRM is presented in Appendix 18: Grievance Redress Mechanism

6.3 Monitoring and Reporting Framework

This ESMP operationalises the findings of the RACP Environmental and Social Impact Assessment and provides a structured framework to prevent, minimise, mitigate and monitor adverse environmental and social impacts while enhancing positive benefits. It clearly defines roles and responsibilities, measurable indicators, capacity-building requirements and an implementation budget in line with the Environmental Management Act [Chapter 20:27], AfDB Integrated Safeguards System (2023) and IFAD SECAP (2021). The overall responsibilities of stakeholders are presented in Table 37.

Table 37: Overall Responsibilities under the ESMP

Action by	**Core Responsibilities under the ESMP**
Project Implementation Unit (PIU).	Overall ESMP coordination, contracting and supervising contractors; maintaining safeguard documentation, consolidating monitoring reports; liaising with EMA, ZINWA, RDCs and financiers.
Contractors / Service Providers.	Implement site-specific mitigation and monitoring measures; train workers; maintain records (PPE, incidents, waste manifests); comply with permits and codes of conduct.

Effective monitoring and reporting are crucial for ensuring that the Resilience Agriculture Cluster Project (RACP) in the Midlands Province adheres to the environmental, social, gender, and climate resilience standards set by the AfDB Operational Safeguards (OS) and IFAD SECAP Standards (S). The monitoring framework will use clearly defined indicators to track changes in water resources, soil health, biodiversity, labour, SEAH risks, community health, governance, livelihoods, and climate resilience across all targeted irrigation schemes.

Quarterly supervisory assessments conducted by the Project Implementation Unit (PIU) and provincial teams will complement monthly frontline monitoring by AGRITEX, EMA, the Forestry Commission, RDCs, and IMCs. This ensures consistent oversight, early detection of risks, and effective implementation of mitigation measures throughout all project phases.

The monitoring results will be documented through established reporting channels at the scheme, district, and provincial levels. Quarterly summaries will provide a consolidated view of performance and highlight emerging issues that may require corrective action. Additionally, the framework will incorporate independent audits and periodic evaluations to verify compliance with OS and S requirements, enhance transparency, and support continuous improvement in the implementation of the Environmental and Social Management Plan (ESMP).

Table 38 and Table 41 will outline the specific parameters to be assessed during the planning, construction, operation, decommissioning, and cumulative impact phases, including indicators, monitoring responsibilities, and estimated budget requirements tailored to the Midlands context.

Table 38: Planning phase, Monitoring and Reporting Framework

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Social Inclusion: Risk of excluding women, youth, and vulnerable groups (OS1, OS2, S1, S6)	Monitor representation of women, youth, and vulnerable groups in planning and allocation processes.	Percentage of women and youth attending meetings; documented attendance; allocation records reflecting representation.	Quarterly during planning and design phase.	IMC, AGRITEX, Social Services from RDC, PIU Social Specialist.	Included in annual monitoring budget (approximately $27,500.).
Water Resources : Risk of over-abstraction due to design decisions (OS1, OS3, S2, S9)	Conduct hydrological assessments and consider environmental flow considerations during project design.	Availability of hydrology report; defined abstraction limits in the project design; ZINWA clearance obtained.	Once per scheme during planning; reviewed during ESMP updates.	ZINWA, EMA, PIU Environmental Specialist.	Minor desk-review cost included in institutional support; no separate field budget required.
Land Access: Risk of restricting grazing	Ensure existing community routes are incorporated and	Maps indicating maintained or rerouted access; number	Once per scheme during detailed	RDC, IMC, PIU Social Safeguards.	Budget covered in frontline monitoring lump sum.

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
routes and footpaths (OS2, S7)	maintained in project layouts.	of land access complaints recorded.	design; followed by annual checks.		
Biodiversity: Potential encroachment into riparian and wetland zones (OS3, S2)	Verify ecological buffer zones are established in project design.	Buffers marked on design drawings and appropriately marked on the ground.	Once upon design approval; again prior to construction.	EMA, Forestry Commission, PIU Environmental Specialist.	Included in overall monitoring budget and support from EMA/Forestry Commission.
Climate and Disaster Risk: Risk of underestimating flood/drought impacts (OS1, OS4, S5, S9)	Integrate climate risk factors into design, such as elevations and drainage systems.	Design documentation demonstrating climate-resilient features; consideration of flood lines.	At design review stage; updated if design modifications occur.	PIU Climate/Irrigation Engineer, EMA, RDC.	Incorporation included in PIU quarterly supervision budget.
Soil and Landscape: Erosion issues linked to poorly located	Ensure borrow pit locations are clearly identified and include	Borrow pit locations represented on plans; rehabilitation measures outlined in contracts.	Once at ESMP/design approval; followed by	EMA, RDC, PIU Environmental Officer.	Covered under institutional support; no distinct field cost.

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
borrow pits (OS1, OS3, S2)	rehabilitation plans in the design.		annual evaluations.		
Labour Conditions: Insufficient labour planning (OS5, S4)	Confirm presence of a Labour Management Plan (LMP) that addresses worker conditions.	Existence of an approved LMP attached to all contracts.	Checked once before contractors are mobilised.	PIU Safeguards, Ministry of Labour (as required).	Minimal desk-based cost included.
Gender and Protection: Risks associated with SEAH not being mitigated (OS1, OS5, S3)	Ensure inclusion of a SEAH Action Plan and Codes of Conduct in project planning documentation.	Existence of a SEAH plan; Code of Conduct included in bid documents/contracts.	Assessed once per contract before finalisation and mobilisation.	PIU GBV/SEAH Focal Person, Procurement Unit.	Incorporated in PIU operational budget.
Community Safety: Poorly planned access routes pose risks (OS4, S5)	Assess community safety measures included in road and access design.	Speed limits, signage placements, and detour routes identified in design plans.	Checked once during design phase; reviewed before	RDC Engineer, PIU Engineer.	Expenses included in engineering review budget.

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
			construction begins.		
Participation: Quality of planning consultations (OS1, S6)	Document the inclusivity and outcomes of planning consultations.	Number of consultations held; diversity of participants; issues logged.	Conducted quarterly during design.	IMC, RDC, PIU Social Safeguards.	Covered under the overall monitoring budget.
Grievances: Lack of a functional GRM during the planning stage (OS1, OS2, OS5, S6, S7)	Assess the functionality of ward and scheme GRM.	Formation of GRM committee; opening of a GRM logbook.	Quarterly assessments.	IMC, RDC, PIU.	Minimal extra costs; encompassed in monitoring lump sum.
Climate Resilience: Failure to include adaptation measures (OS1, OS4, S9)	Confirm inclusion of climate adaptation strategies, such as bypass channels and elevated structures.	Evidence of adaptation features in project designs.	Checked once upon design approval.	PIU Climate Specialist and Engineer.	Integrated into PIU administrative costs.

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Pollution: Inadequate planning for safe chemical management (OS4, S5)	Verify presence of provisions for IPM and chemical store designs in project plans.	Inclusion of IPM elements in ESMP; designated area for chemical storage noted.	Evaluated once at ESMP finalisation.	EMA, PIU Environmental Officer.	Costs included in ESMP preparation and review budget.
Cultural Heritage: Risk of damaging unknown sites (OS1, OS3)	Ensure chance-find procedures are included in procurement documents.	Presence of chance-find clauses in all contracts.	Reviewed prior to procurement finalisation.	PIU Environmental Specialist, National Museums and Monuments of Zimbabwe (NMMZ).	Minimal desk-review cost; included in the overall budget.
Governance: Unclear IMC roles (OS1, OS2, S6)	Assess clarity of roles and governance arrangements for schemes.	Approval of governance documentation.	Conducted for each scheme during planning phase.	PIU, RDC, IMC.	Covered in institutional support for IMC strengthening.
Monitoring: Absence of a Monitoring and	Check the presence of an environmental and social M&E plan	Availability of an approved M & E framework.	Reviewed once, then updated mid-project.	PIU M&E Officer, Safeguards Team.	Included in PIU core budget.

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Evaluation (M & E) plan (OS1, S1)	outlining indicators, tools, and templates.				

Table 39: Construction Phase Monitoring and Reporting Framework

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Soil and land – erosion and instability (OS1, OS3, S2)	Soil erosion at worksites, condition of slopes and borrow pits	Number of erosion spots; slopes stabilised	Monthly	EMA, RDC, IMC, Contractor; PIU quarterly	Covered by frontline monthly monitoring (AGRITEX/EMA/RDC) plus PIU quarterly supervision
Community safety – traffic and construction hazards (OS4, S5)	Speed control, signage, traffic marshal deployment	Speed limits posted; incidents recorded	Monthly	RDC, IMC, Contractor; PIU supervision	Included in overall monitoring budget
Labour and SEAH – risks due to	SEAH reporting, CoC compliance, complaints	Number of SEAH complaints; workers trained	Monthly	Contractor, PIU GBV Focal Person, IMC	Within monitoring and GBV focal operations

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
workforce (OS5, S3, S4)					
Pollution – fuel/oil spills (OS4, S5)	Presence of spill kits, bunds, spill incidents	Number of spills; spill response time	Monthly	EMA, Contractor, PIU Environmental Officer	Included in EMA support and routine site visits
Air quality – dust and emissions (OS4, S5)	Dust on roads, near homesteads; watering frequency	Dust suppression events per week	Monthly (more frequent in dry months)	EMA, RDC, IMC, Contractor	Part of general monitoring allocation
Biodiversity – vegetation loss (OS3, S2)	Clearing boundaries, unnecessary vegetation removal	Clearance confined to pegged areas	Monthly	EMA, Forestry Commission, Contractor	Within institutional support lump sum
Water quality – sediment and turbidity (OS3, OS4, S5)	Turbidity at key points downstream of works	Turbidity results versus baseline	Quarterly during construction	EMA, PIU Environmental Officer	Lab tests under EMA/PIU budget; site checks in monitoring lump sum

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Occupational safety – accidents and injuries (OS5, S4)	PPE use, toolbox talks, accidents	Recordable incident rate; % PPE compliance	Monthly	Contractor, IMC OHS, PIU	OHS monitoring included in overall budget
Cultural heritage – chance finds (OS1, S3)	Implementation of chance-find procedure	Chance-find records; work stoppage when required	As incidents occur; reported quarterly	Contractor, NMMZ, PIU	Negligible incremental cost
Hydrology – temporary diversions and culverts (OS1, OS4, S9)	Condition of diversion channels and temporary culverts	No blocked channels; no ponding	Monthly	EMA, RDC, PIU Engineer	Covered under routine monitoring
Social stability – tensions from labour influx (OS5, S3, S4, S6)	Complaints about worker behaviour, conflict events	Number of recorded conflicts and resolutions	Monthly	IMC, RDC, PIU Social Safeguards	Included in monitoring lump sum

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Waste – construction waste management (OS4, S5)	Waste segregation, removal, presence of litter	Waste removed weekly; bins used correctly	Monthly	Contractor, IMC, EMA	Covered in frontline monitoring
Mobility – access disruptions (OS4, S5)	Blockages of paths and bypass effectiveness	All agreed routes open or properly diverted	Monthly	RDC, IMC, Contractor	Included in routine visits

Table 40: Operation phase Monitoring and Reporting Framework

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Water resources – long-term abstraction pressure (OS1, OS3, S2, S9)	Compare abstraction volumes with permits; check downstream flows and wetland condition	Meter readings; observed flows; observed wetland condition	Monthly by frontline teams; quarterly by PIU/ZINWA	IMC Water Committee, ZINWA, EMA, PIU	Included in frontline monthly and quarterly supervision budget
Pollution – agrochemicals and oils (OS4, S5)	Inspect chemical storage, IPM practices and avoidance of washing in canals	Number of unsafe practices observed;	Monthly	EMA, AGRITEX, IMC	Covered under EMA/AGRITEX

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
		state of chemical stores			support and overall monitoring lump sum
Soil health – salinity, nutrient status (OS3, S2)	Review soil test results (EC, pH, salinity) and drainage performance	Soil laboratory values remaining within acceptable thresholds	Twice a year	AGRITEX, PIU Agronomist	Soil analyses budgeted separately in ESMP; supervision included in monitoring lump sum
Livelihoods – improved but variable incomes (OS1, S1)	Track crop yields, income trends and market access	Yield per hectare; income proxy data; VBU throughput volumes	Quarterly	AGRITEX, IMC, PIU Livelihood Officer	Included in quarterly supervision
Agricultural efficiency – scheme performance (OS1, S1)	Check pump performance, canal condition and water distribution efficiency	Pump operating hours; downtime; number of water complaints	Monthly technical checks; quarterly review	IMC, AGRITEX, PIU Engineer	Funded through frontline monitoring
Governance – IMC conflicts and transparency (OS1, OS2, S6)	Review regularity of IMC meetings, financial records and rule enforcement	Number of IMC meetings; audited accounts; reported breaches	Quarterly	IMC, RDC, PIU Governance Specialist	Included in institutional and monitoring support
Labour – scheme-level OHS for routine operation (OS5, S4)	Inspect pump houses, PPE for operators and incident records	PPE use by operators; number of recorded injuries	Monthly	IMC OHS focal person, PIU OHS Officer	Part of routine monitoring budget

Aspect and Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Community health – malaria, waterborne disease risks (OS1, S5)	Observe stagnant water, mosquito breeding sites and health reports	Number of breeding sites cleared; trends in health incidents	Monthly, with quarterly inputs from health officers	IMC, MoHCC EHT, PIU Social Safeguards	Included in frontline monitoring; some health data collection borne by MoHCC
Social cohesion – water conflicts and exclusion (OS2, S7)	Track dispute frequency and unresolved grievances	Recorded water-use conflicts; GRM resolution rate	Monthly	IMC GRM Committee, RDC, PIU	Covered within the general monitoring lump sum
Climate resilience – infrastructure performance under shocks (OS1, OS4, S9)	Inspect damage after extreme events and performance of overflows/embankments	Number of climate-related damages; response time	After major events; otherwise quarterly checks	IMC, PIU Climate/Irrigation Engineer, EMA	Covered within quarterly supervision and broader institutional support

Table 41: Decommissioning phase Monitoring and Reporting Framework

Aspect and Impact (Project Phase)	Monitored Activity (Management Measure)	Monitoring Indicator (Metric)	Frequency	Responsibility	Estimated Monitoring Budget
Occupational Health and Safety (OHS) –	Implementation of safe dismantling	Zero serious injuries recorded;	Weekly during active decommissioning.	Contractor, IMC, PIU OHS Specialist.	Included in the project closing-phase budget

Aspect and Impact (Project Phase)	Monitored Activity (Management Measure)	Monitoring Indicator (Metric)	Frequency	Responsibility	Estimated Monitoring Budget
Dismantling accident risks (OS5, S4)	procedures, provision of PPE, and regular toolbox talks.	documented evidence of toolbox talks held.			and PIU supervision costs.
Waste and Pollution – Hazardous and scrap waste (OS4, S5)	Correct disposal of oils, metals, and debris.	Availability of waste manifests; absence of uncontrolled dumps on site.	Weekly until site closure is complete.	EMA, RDC, Contractor, PIU.	Funded through the decommissioning works budget and oversight visits.
Landscape – Restoration and rehabilitation (OS3, S2)	Backfilled trenches, regraded slopes, and vegetation re-establishment.	Number of pits closed and safely secured; vegetation cover percentage achieved.	Monthly during decommissioning; final inspection at handover.	EMA, Forestry Commission, RDC, PIU.	Included in the closure budget plus a monitoring lump sum.
Livelihoods – Transition away from	Provision of support for alternative	Number of households supported with new ventures; livelihood	At decommissioning planning phase;	AGRITEX, PIU Livelihoods/Social Specialists, RDC.	Covered in the closure and livelihood support budget.

Aspect and Impact (Project Phase)	Monitored Activity (Management Measure)	Monitoring Indicator (Metric)	Frequency	Responsibility	Estimated Monitoring Budget
irrigation-based income (OS2, S7)	livelihoods; clarity of the transition plan.	options identified and validated.	reviewed at completion.		
Safety – Hazards to community after decommissioning (OS4, S5)	Removal of remaining hazards: open pits, unstable structures, residual debris.	Zero open pits remaining; all hazardous structures removed or secured.	At completion of works and a 6-month follow-up after.	RDC, EMA, IMC, PIU.	Included under the budget for final inspection and institutional support.
Social Stability – Conflicts over asset redistribution (OS1, S6)	Execution of a transparent asset handover process; thorough conflict records.	Number of disputes recorded and resolved through the appropriate mechanism.	At asset handover; follow-up quarterly for 1 year.	IMC, RDC, PIU Social Safeguards.	Within the overall monitoring and handover processes budget.
Reuse Potential – Community reuse of remaining assets (OS1, OS2, S6)	Existence and implementation of asset reuse plans.	Reuse plan in place and officially adopted; reuse options	Once at handover; annual check if reuse is ongoing.	RDC, IMC, PIU.	Included in the budget for project closing supervision.

Aspect and Impact (Project Phase)	Monitored Activity (Management Measure)	Monitoring Indicator (Metric)	Frequency	Responsibility	Estimated Monitoring Budget
		implemented as planned.			

The annual monitoring budget Table 42 allocates USD 27,500 for all environmental and social compliance activities across the RACP irrigation schemes in Midlands Province (Kwekwe and Chirumhanzu districts). This funding supports oversight of water resources, soil protection, biodiversity, worker safety, SEAH prevention, community health, governance, and climate adaptation measures at scheme, district, and provincial levels.

Table 42: Annual Monitoring budget

Aspect & Impact (OS, S)	**Frequency**	**Responsible Office**	**Annual Monitoring Budget (USD)**
Water resources – abstraction volumes, downstream flows, wetland condition (OS1, OS3, S2, S9)	Monthly frontline and quarterly PIU	ZINWA, EMA, AGRITEX, IMC Water Committee, PIU Environmental Specialist	**6,857.00**
Water quality – turbidity, pH, EC, contamination risks (OS3, OS4, S5)	Quarterly	EMA, PIU Environmental Specialist	**3,500.00**
Soil health – salinity, soil fertility, erosion status (OS1, OS3, S2)	Twice yearly tests and monthly visual checks	AGRITEX, EMA, PIU Agronomist	**2,800.00**
Biodiversity – buffer zones, riparian vegetation and habitat protection (OS3, S2)	Quarterly	Forestry Commission, EMA, PIU Environmental Specialist	**2,800.00**
Pollution – agrochemicals, fuel, oils, chemical storage (OS4, S5)	Monthly	EMA, IMC, PIU Environmental Specialist	**3,500.00**
Air quality – dust and construction or traffic emissions (OS4, S5)	Monthly in dry seasons	EMA, RDC, Contractor, IMC	**1,900.00**
Labour and SEAH – worker conditions, SEAH risk and Code of Conduct compliance (OS5, S3, S4)	Monthly	Contractors, IMC, PIU SEAH and Social Safeguards	**3,800.00**
Occupational health and safety – accidents, PPE use,	Monthly	IMC OHS focal person, Contractors, PIU OHS Officer	**3,800.00**

Aspect & Impact (OS, S)	Frequency	Responsible Office	Annual Monitoring Budget (USD)
pump house safety (OS5, S4)			
Community health – malaria, waterborne disease and stagnant water (OS1, S5)	Monthly frontline, quarterly health review	MoHCC EHTs, IMC, PIU Social Safeguards	**4,000**
Community safety – road and canal safety, traffic risks, signage (OS4, S5)	Monthly	RDC, IMC, Contractors, PIU	**3,333**
Social inclusion – participation of women, youth and vulnerable groups (OS1, OS2, S1, S6)	Quarterly	RDC, IMC, PIU Social Safeguards	**1,667**
Social stability – conflicts linked to labour influx and water sharing (OS5, S3, S4, S6)	Monthly	IMC, RDC, PIU Social Safeguards	**1,667**
Governance – IMC performance, transparency and rule enforcement (OS1, OS2, S6)	Quarterly	IMC, RDC, PIU Governance or Institutional Specialist	**3,333**
Land access – grazing routes, footpaths, access to schemes (OS2, S7)	Quarterly	RDC, IMC, PIU Social Safeguards	**1,667**
Cultural heritage – chance finds, protection of sites (OS1, S3)	As incidents occur and quarterly review	NMMZ, PIU Environmental Specialist	**1,666**
Livelihoods – crop yields, income, market access (OS1, S1)	Quarterly	AGRITEX, VBUs, IMC, PIU Livelihoods Officer	**3,000**
Agricultural efficiency – pump and canal performance, water delivery (OS1, S1)	Monthly	IMC, AGRITEX, PIU Irrigation or Engineering Specialist	**2,500**

Aspect & Impact (OS, S)	Frequency	Responsible Office	Annual Monitoring Budget (USD)
Climate resilience – performance of drains, embankments and bypasses under extreme events (OS1, OS4, S9)	Quarterly and after major events	EMA, RDC, IMC, PIU Climate or Engineering Specialist	**2,000**
Hydrology – drainage channels, culverts, diversions and local flooding (OS1, S2)	Quarterly	EMA, RDC, PIU	**1,833**
Mobility – condition of access routes, bypasses and footpaths (OS4, S5)	Monthly	RDC, IMC	**1,333**
Waste management – segregation, storage and disposal of solid and hazardous waste (OS4, S5)	Monthly	EMA, IMC, RDC, Contractors	**1,333**
Monitoring and reporting – M&E tools, data quality, timely reporting (OS1, S1)	Monthly and quarterly	PIU M&E Unit, IMC	**1,334**

7.0 Conclusion

The Resilience Agriculture Cluster Project (RACP) represents a strategic and transformative intervention aimed at modernising, climate-proofing, and sustaining smallholder irrigation agriculture in the Midlands Province. By focusing on the comprehensive rehabilitation and expansion of the Sessombe, Senkwasi, Wozoli, Igogo, Milsonia, and Siyaso irrigation schemes, the project provides a practical demonstration of how targeted investments can shift smallholder production from subsistence-oriented activities to diversified, commercially viable, and climate-resilient systems. The Environmental and Social Management Plan (ESMP) developed for these schemes recognises the complex and diverse environmental and social conditions across the province, including variable soil types, erosion-prone landscapes, degraded catchments, and socio-economic challenges such as gender disparities and limited access to markets and infrastructure.

The mitigation strategies proposed, ranging from catchment rehabilitation, gully control, and soil conservation to inclusive governance structures, gender-responsive training, and climate-smart technology adoption, are specifically designed to address the challenges identified during the Rapid Participatory Appraisals (RPAs) and field assessments. Implementation of these interventions is expected to enhance water-use efficiency, reduce land degradation, improve ecosystem services, and strengthen community capacity for climate adaptation. Moreover, the ESMP underscores the importance of embedding environmental and social safeguards into every stage of the project cycle.

Successful delivery of the RACP's objectives will depend on full compliance with the Environmental Management Act [Chapter 20:27], the African Development Bank's Integrated Safeguards System, and IFAD's Social, Environmental and Climate Assessment Procedures. This ESMP translates those requirements into clear, actionable steps with defined institutional responsibilities, performance indicators, and monitoring mechanisms. Through this structured and participatory approach, the project not only mitigates potential risks but also maximises long-term benefits, ensuring that communities in Kwekwe and Chirumanzu districts can sustainably harness the potential of irrigated agriculture for improved livelihoods, food security, and climate resilience.

Finally, the RACP's design for the Midlands embodies a commitment to sustainability and inclusivity. It integrates direct responses to local challenges, such as combating siltation in the Sanyati catchment, promoting labour-saving centre pivots to address gender burdens, and

strengthening water-user governance. The established monitoring framework ensures that performance is transparently tracked. If implemented as set out in this report, the RACP in the Midlands will not only deliver immediate gains in agricultural productivity and rural incomes but will also establish a replicable model of environmentally sound and socially equitable irrigation development within the province.

Way Forward

Going forward, the Project Implementation Unit will use the ESMP as a living document that guides all planning, construction, operation and decommissioning activities. Annual reviews and stakeholder consultations will be held to update mitigation measures and monitoring indicators in line with emerging risks, climate forecasts and regulatory changes. The PIU will also ensure that all implementing partners and contractors are trained on safeguard requirements and that independent verification of compliance is carried out by EMA and other competent authorities. By embedding continuous learning, transparent reporting and adaptive management, the RACP will create a strong foundation for sustainable and inclusive agricultural development that benefits present and future generations.

References

Dougherty, T.C. and Hall, A.W. (1995) Environmental Impact Assessment of Irrigation and Drainage Projects. FAO Irrigation and Drainage Paper 53. Rome: Food and Agriculture Organization of the United Nations.

World Bank (2020) Environmental and Social Management Plan for Rehabilitation and Reconstruction of the Existing Secondary and Tertiary Networks in the Irrigation System of Zeda Ru. Washington, DC: World Bank. https://documents1.worldbank.org/curated/en/920141611571260762/pdf/Environmental-and-Social-Management-Plan-for-Rehabilitation-and-Reconstruction-of-the-Existing-Secondary-and-Tertiary-Networks-in-Irrigation-System-of-Zeda-Ru.pdf

UNDP (2023) ESIA and ESMP for Irrigation Schemes Rehabilitation Projects. Available at: https://www.undp.org/timor-leste/publications/esia-and-esmp-irrigation-schemes-rehabilitation-projects

CEMMATS Group Ltd (2016) Environmental and Social Management Plan (ESMP) Summary Project Name: Farm Income Enhancement and Forest Conservation II Project. Available at:

https://www.adb.org/sites/default/files/project-documents/50045/50045-001-esmp-en_0.pdf

CEMMATS Group Ltd (2016) ESIA Volume 2: Environmental and Social Management Plans (ESMP). Sierra Tropical Ltd Agricultural Project. Available at: https://www.jica.go.jp/english/our_work/social_environment/id/africa/sierra_leone/c8h0vm0000f8rx42-att/c8h0vm0000f8rx79.pdf

Mock, J.F. and Bolton, P. (1993) The ICID Environmental Checklist - to Identify Environmental Effects of Irrigation, Drainage, and Flood Control Projects. Overseas Development Administration, UK.https://www.gov.uk/research-for-development-outputs/the-icid-environmental-check-list-to-identify-environmental-effects-of-irrigation-drainage-and-flood-control-projects

County Government of Marsabit (2021) Environmental and Social Impact Assessment Report for Proposed Anona Flood Based Irrigation in Marsabit County. https://www.afdb.org/sites/default/files/anona-irrigation-scheme-esia-revised.pdf

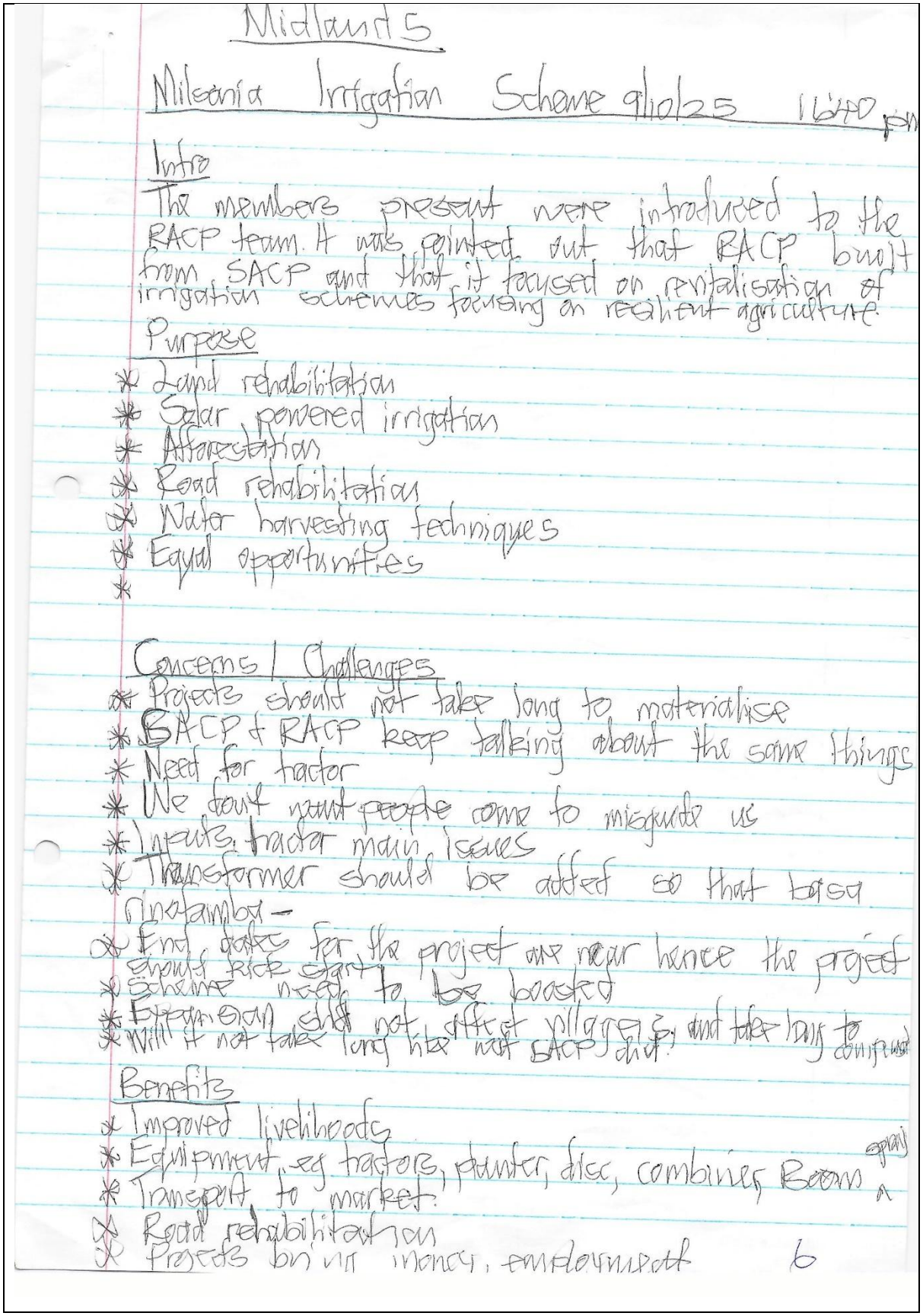
Smallholder Agriculture Cluster Project (SACP) (2023) Rapid Participatory Appraisal (RPA) Report for Igogo Irrigation Scheme. Kwekwe District.

Smallholder Agriculture Cluster Project (SACP) (2024) Rapid Participatory Appraisal (RPA) Report for Sessombi Irrigation Scheme. Kwekwe District.

Smallholder Agriculture Cluster Project (SACP) (2024) Rapid Participatory Appraisal (RPA) Report for Milsonia Irrigation Scheme. Kwekwe District.

APPENDICES

Appendix 1: Community Meeting Minutes for Milsonia Irrigation Scheme



Midlands

Milsonia Irrigation Scheme minutes 11:00 pm

Intro

The members present were introduced to the RACP team. It was pointed out that RACP built from SACP and that it focused on revitalisation of irrigation schemes focusing on resilient agriculture.

Purpose

* Land rehabilitation
* Solar powered irrigation
* Afforestation
* Road rehabilitation
* Water harvesting techniques
* Equal opportunities
*

Concerns / Challenges

* Projects should not take long to materialise
* SACP & RACP keep talking about the same things
* Need for tractor
* We don't want people come to misguide us
* Inputs, tractor main issues
* Transformer should be affect so that taisa Chitambo -
* End dates for the project are near hence the project should kick start to be boosted
* Scheme need to be boosted
* Extension staff not affect villages & and take long to compound
* Will it not take long like not SACP staff.

Benefits

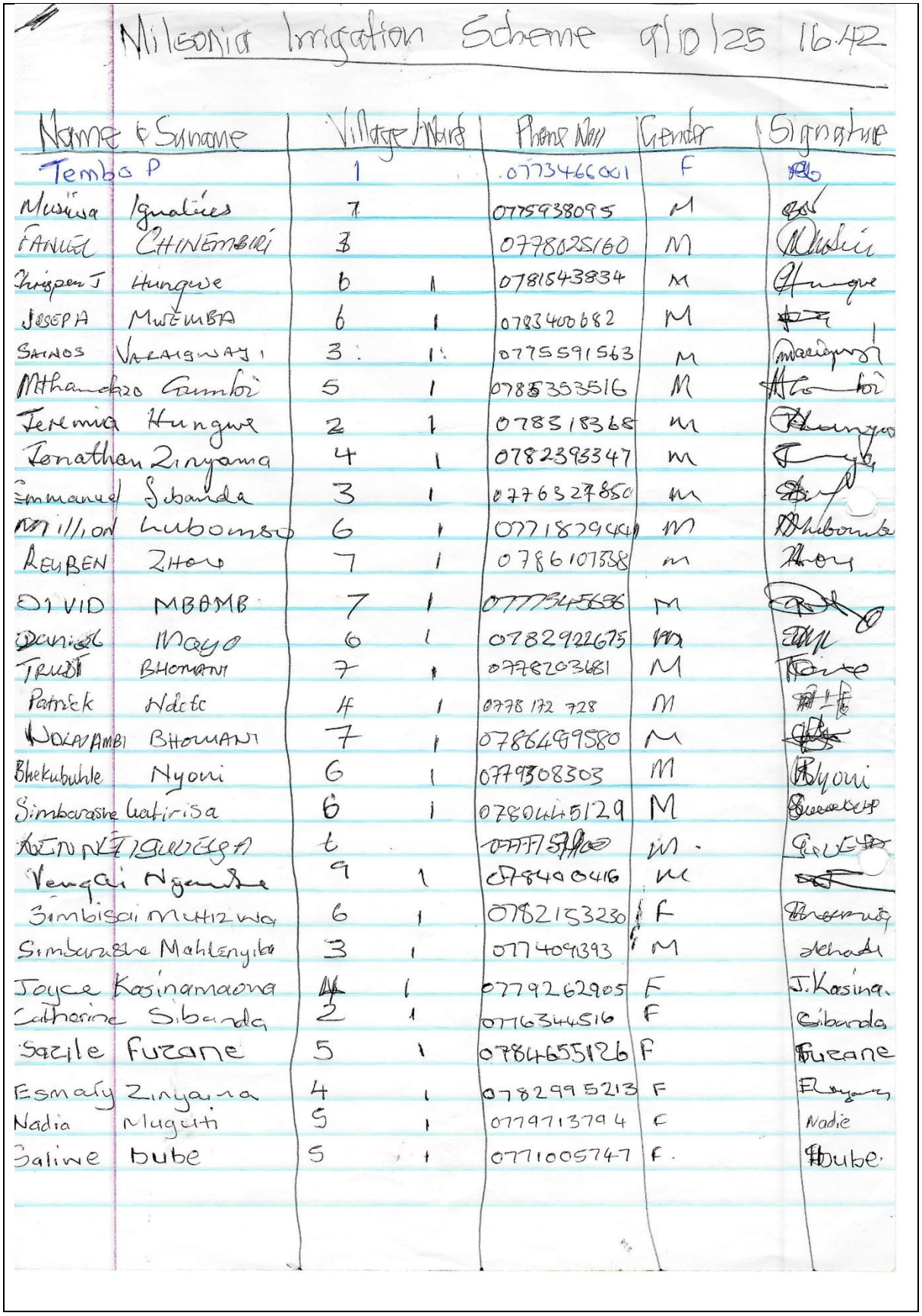
* Improved livelihoods
* Equipment, eg tractors, planter, disc, combines, Boom spray
* Transport to market
* Road rehabilitation
* Projects bring in money, employment

* RACP & ARDA should come together and address farmers.
* Expansion needed.
* Maltbeck – GMB in the long run value addition.

1733 pm

7

Appendix 2: Community Meeting Register for Milsonia Irrigation Scheme.



Milsonia Irrigation Scheme 9/10/25 16:42

Name & Surname	Village/Ward		Phone No.	Gender	Signature
Temba P	1		0773466001	F	
Musiwa Ignatius	7		0775938095	M	
FANUEL CHINEMBIRI	3		0778025160	M	
Chrispen T Hungwe	6	1	0781543834	M	
JOSEPH MWEMBA	6	1	0783400682	M	
SAMOS VARAIGWAYI	3	1	0775591563	M	
Mthandazo Gambiri	5	1	0785353516	M	
Jeremia Hungwe	2	1	0783183685	M	
Jonathan Zinyama	4	1	0782393347	M	
Emmanuel Sibanda	3	1	0776327850	M	
Million Lubombo	6	1	0771879441	M	
REUBEN ZHOU	7	1	0786107388	M	
DAVID MBAMB	7	1	0777345696	M	
Daniel Mayo	6	1	0782922675	M	
TRUST BHOMANI	7	1	0778203681	M	
Patrick Ndefe	4	1	0778 172 728	M	
NOKWAMBI BHOMANI	7	1	0786499580	M	
Bhekubuhle Nyoni	6	1	0779308303	M	
Simbarashe Matirisa	6	1	0780444 5129	M	
[illegible]	6		0777 [illegible]	M	
Vengai Ngambe	9	1	0784040416	M	
Simbisai Muhlanga	6	1	0782153230	F	
Simbarashe Mahlangu	3	1	0774094393	M	
Joyce Kasinamaona	4	1	0779262905	F	J. Kasina.
Catherine Sibanda	2	1	0776344516	F	Sibanda
Sazile Furane	5	1	0784655126	F	Furane
Esmary Zinyama	4	1	0782995213	F	
Nadia Muguti	5	1	0779713794	F	Nadia
Saline Dube	5	1	0771005747	F	Dube.

Appendix 3: Community Meeting Minutes for Sessombe Irrigation Scheme

Sessombe Irrigation Scheme 1500 hours
Midlands ; Village 6

Introduction
* Brief background of SIRDC and RACPIs mandate on climate smart agriculture. Mandate is to come up with an ESMP.

Purpose
* Solar Irrigation system (Green Energy)
* Afforestation
* Road rehabilitation
* Market survey
* Equal opportunities (Women & Youths)
* Land restoration

Benefits
* Employment creation
* Ready markets for produce
* Food security
* Improved livelihoods
* Peace and tranquility in the families

Questions / concerns
* In cases of the need for expansion, what will happen to those who may be affected
* People are coming in pretending to be government officials
* Need for ready markets with reasonable price
*

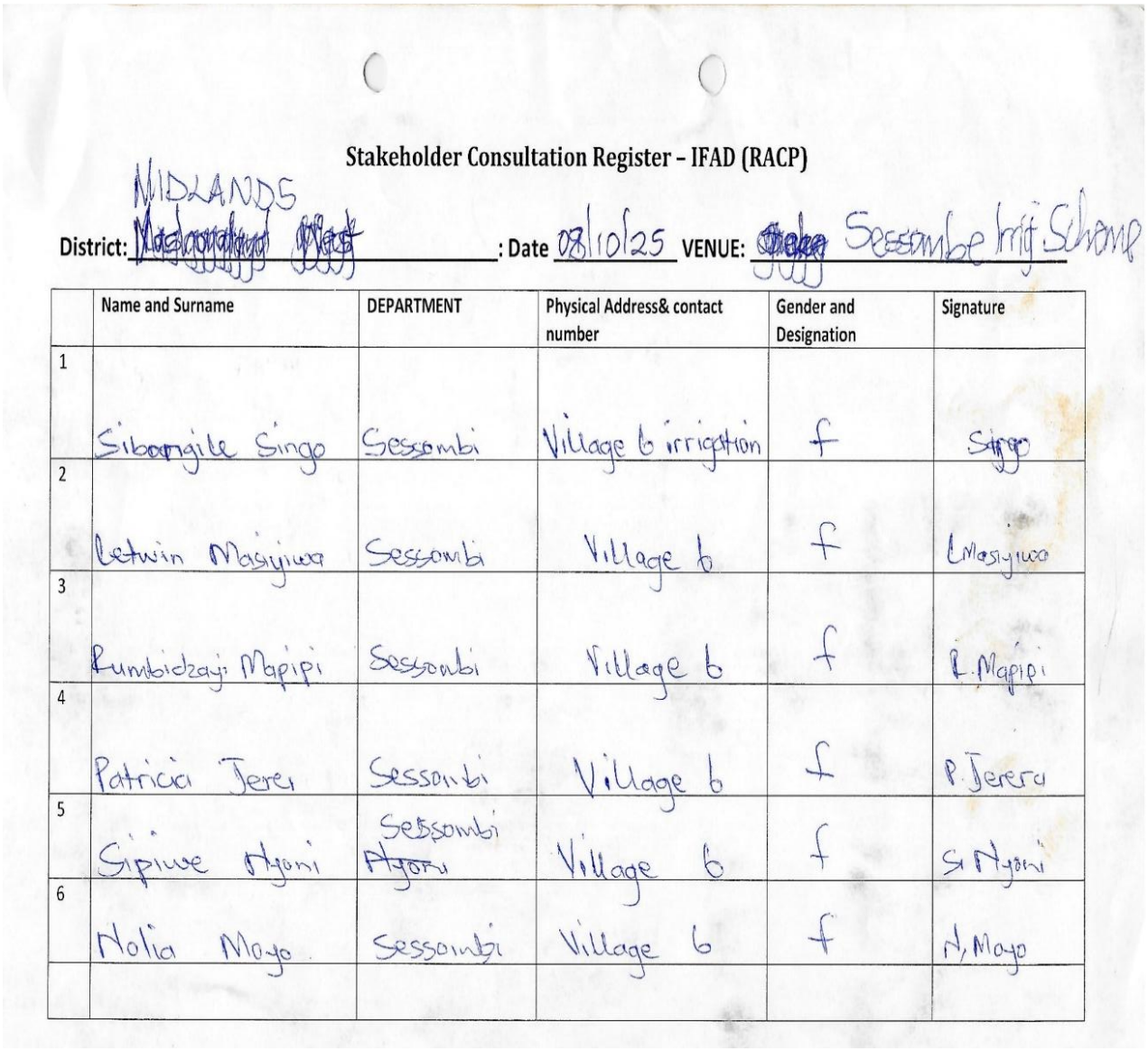
* The project is taking time, no feedback some men actual chief
* Is there issue of contracting farming which might come up
* Is there displacements of nearby communities,
* Water may be limited
* Electricity might be there but thieves may steal equipment
* Farm yields may fail due to climate change
* Security of equipment should be decided by the farmers. Poisned bumbin remuteno
* Look for a permanent security personal.
* Social ills
* Drinking beer because of more money, more wives disruptions of families
* Give each one a piece of land but be guided by the Agrito officers on what to plant.
* If possible each one should be given his piece of land. and manage it themselves.

Mitigation

* Restrict the construction workers to come into the villages
* Use of bumbin remuteno (Constitution)
*

1H 20

Appendix 4: Community Meeting Register for Sessombe Irrigation Scheme



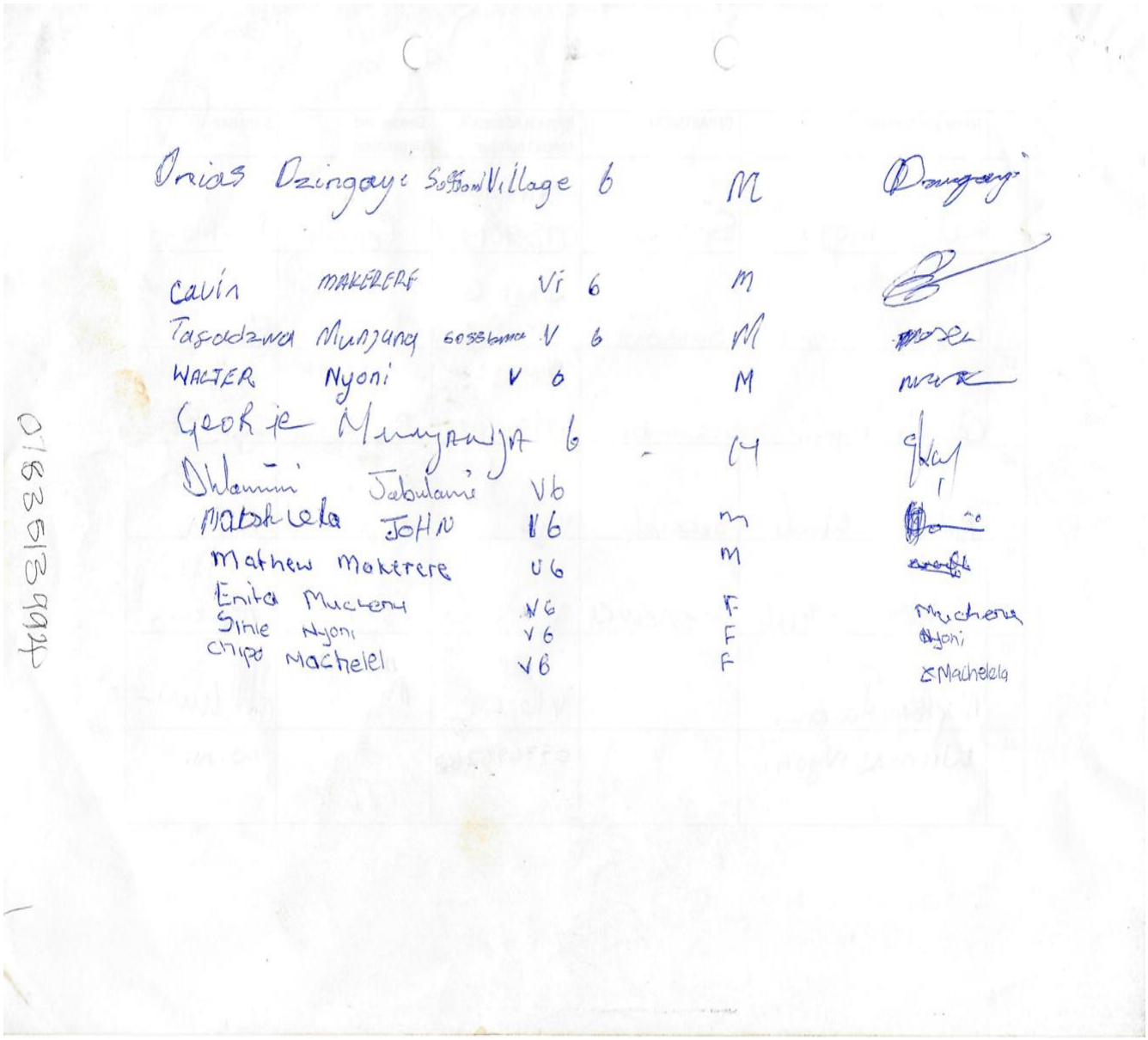
Stakeholder Consultation Register – IFAD (RACP)

District: MIDLANDS : Date 08/10/25 VENUE: Sessombe Irrig Scheme

	Name and Surname	DEPARTMENT	Physical Address& contact number	Gender and Designation	Signature
1	Sibongile Singo	Sessombi	Village b irrigation	f	Singo
2	Letwin Masiyiwa	Sessombi	Village b	f	L Masiyiwa
3	Rumbidzayi Mapipi	Sessombi	Village b	f	R. Mapipi
4	Patricia Jerera	Sessombi	Village b	f	P. Jerera
5	Sipiwe Nyoni	Sessombi ~~Nyoni~~	Village b	f	S Nyoni
6	Nolia Mayo	Sessombi	Village b	f	N, Mayo

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	Ever Moyo	Sessombi	Village 6 0779309357	Female	Moyo
8	Nicklar Mangisi	Sessombi	Village 6 07873509444	Female	N mangisi
9	Sekai Jerera	Sessombi	Village6 0779420927	Female	S J
10	Laizu Musvosveri	Sessombi	Village 6 0774248218	Female	L. Musvosveri
11	Sharon Moyo	Sessombi	village 6 0788896719	Female	S. moyo
12	Rejoice Sibanda	Sessombi	Village 0785318085	Female	R. Sibanda
13	Janet Mwinde	Sessombi	Village 6 0713515332	female	Jmafinde
14	Eunet Mamvura	Sessombi	village 6 0785591513	female	Mamvura

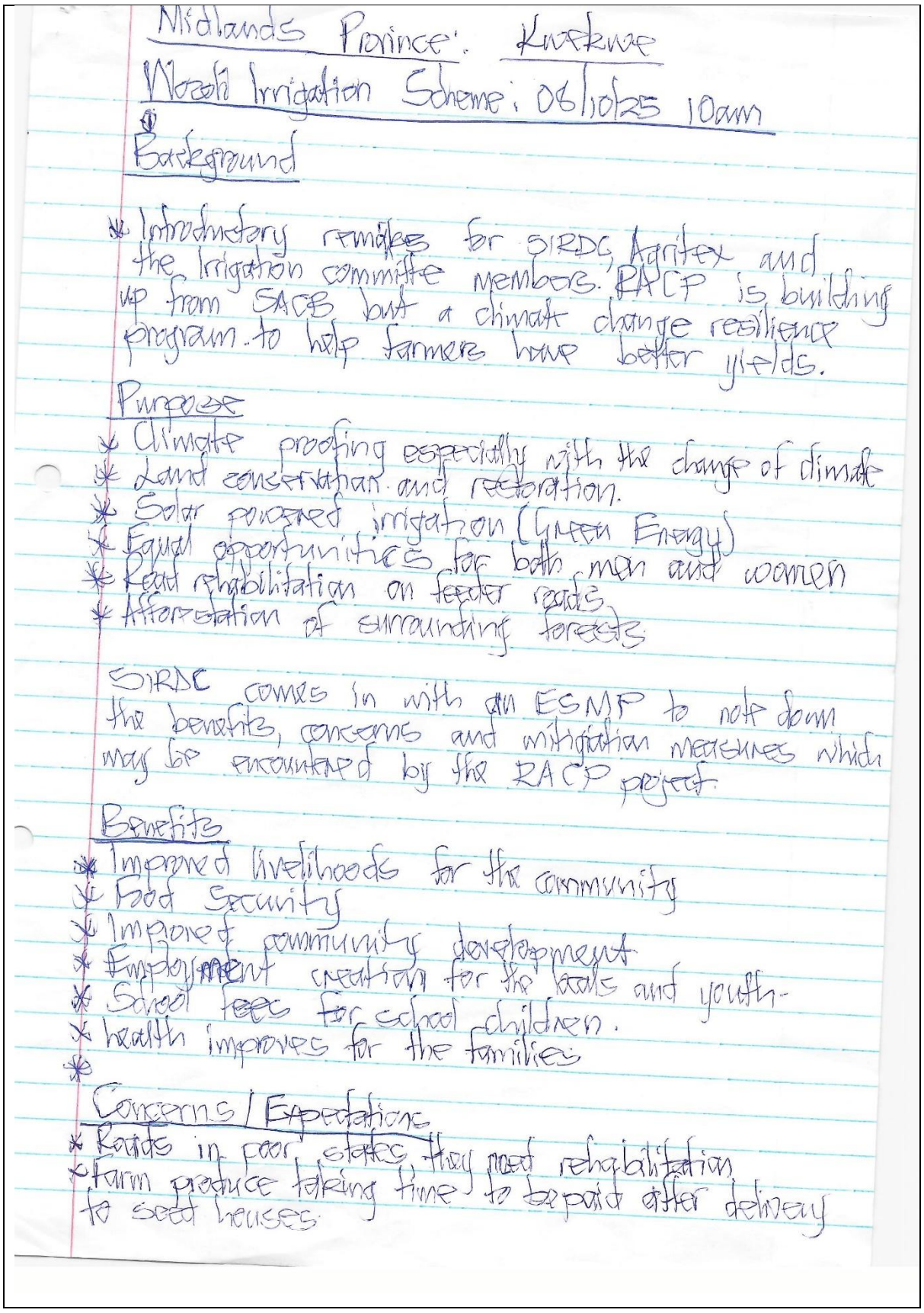
	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	Ndila Moyo	Sessombi	village 6 0784095159	female	N. Moyo
16	Mapedzamombe Babra	Sessombi	village 6 0785436520	female	
17	Cecilia Nyoni	Sessombi	Village 6 0779021818	F	Nyoni
18	Misheck Sibanda	Sessombi	Vg 6	M	Sibanda
19	Mthuli Ncube	[illegible]	Village 6	M	
20	Muchenu Rangarirai		village 6	M	
21	Witness Nyoni		0774962663	[illegible]	W. N.



Orias	Dzingay:	Soffoni Village	6	M	Dzingay
Calvin	MAKERERE	VI	6	M	
Tapadzwa	Munjuru	Soffoni	V	6	M
WALTER	Nyoni	V	6	M	
Geoffrey	Munyaradzi		6	M	
Dhlamini	Jabulani	V6			
Matshela	JOHN	V6		M	
Mathew	Makerere	U6		M	
Enita	Muchena	V6		F	Muchena
Sinie	Nyoni	V6		F	Nyoni
Chipo	Machelel	V6		F	Machelela

0783513944

Appendix 5: Community Meeting Minutes for Wozoli Irrigation Scheme



Midlands Province: Kwekwe

Wozoli Irrigation Scheme: 08/10/25 10am

Background

* Introductory remarks for SIRDC, Agritex and the Irrigation committe members. RACP is building up from SACS but a climate change resilience program to help farmers have better yields.

Purpose

* Climate proofing especially with the change of climate
* Land conservation and restoration.
* Solar powered irrigation (Green Energy)
* Equal opportunities for both men and women
* Road rehabilitation on feeder roads
* Afforestation of surrounding forests

SIRDC comes in with an ESMP to note down the benefits, concerns and mitigation measures which may be encountered by the RACP project.

Benefits

* Improved livelihoods for the community
* Food Security
* Improved community development
* Employment creation for the locals and youth.
* School fees for school children.
* health improves for the families
*

Concerns / Expectations

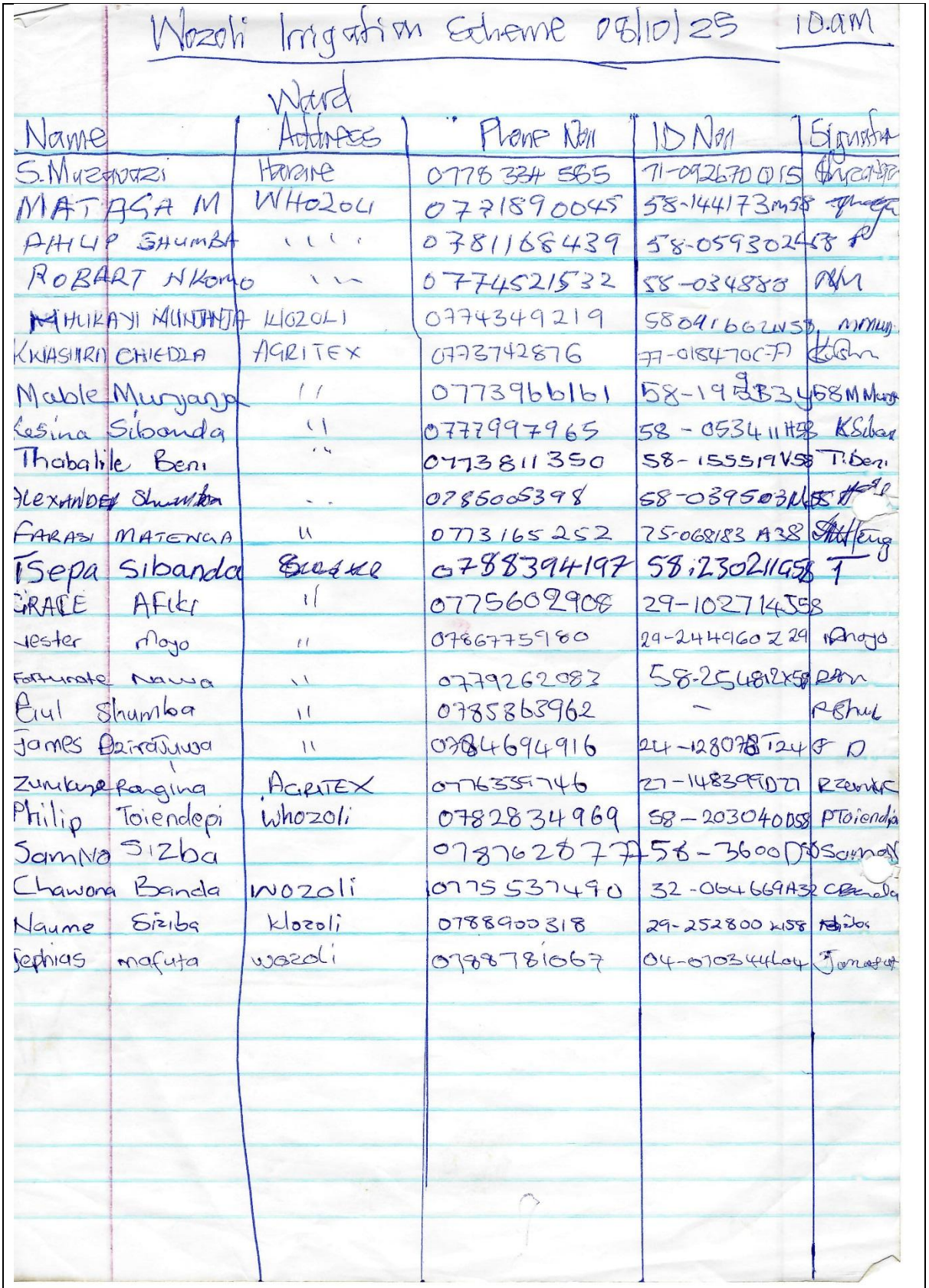
* Roads in poor states, they need rehabilitation
* farm produce taking time to be paid after delivery to seed houses

* Promises made are not being fulfilled and no feedback given
* The dam is now silted hence water is limited at the scheme
* The farmers requested another borehole, on top of the two already installed
* The available drag hose system is not easy to work with, considering the large space to be irrigated.
* Water from the dam is not enough to water the fields as storage tanks were damaged.
* The farmers were concerned about the time frame of the projects commencement, and what was holding up the SACP project.
* A tractor was need to plough the fields
* Farmers now worried about failure to keep promises as projects do come yet nothing materialises
* The farmers were using taps and hosepipes which were not enough to cover the whole area
* School dropouts may come up due to the coming in of construction workers in the area.
* Thefts and crimes may increase when the scheme is up and running.

Mitigation Measures

* Silted rivers should be scooped.
* Canal system is not enough without storage tanks, hence the need for more storage to be installed.
* Sprinklers should be added so that watering becomes easy.
* Road rehabilitation on feeder roads should be done.
* Markets should be sourced so that farmers sell their products without fear of losing out in the long run.
* It was however noted that there were no cultural disturbances and incidents in the area.

Appendix 6: Community Meeting Register for Wozoli Irrigation Scheme



Wozoli Irrigation Scheme 08/10/25 10.0AM

Name		Ward Address	Phone No.	ID No.	Signature
S. Muzenzi		Horane	0778 334 565	71-092670 015	
MATAGA	M	WHOZOLI	0771890045	58-144173m58	
AHUP	SHUMBA	" "	0781168439	58-059302	
ROBART	NKOMO	" "	0774521532	58-034888	
MHLIKAYI	MUNTHALA	KLOZOLI	0774349219	58091662W58	
KWASIRA	CHIEDZA	AGRITEX	0773742876	77-018470C-77	
Mable	Munyanya	"	0773966161	58-19 3834 58	
Lesina	Sibanda	"	0777997965	58 - 0534 11 H58	
Thabalile	Beni	"	0773811350	58 - 155519 V58	
Alexander	Shumba	"	0785005398	58-039503	
FARASI	MATENGA	"	0773165252	75-068183 A38	
Tsepa	Sibanda	[illegible]	0788394197	58-230211 G58	
GRACE	AFIKI	"	0775609908	29-102714 J58	
Vester	Mayo	"	0786775980	29-244960 Z 29	
Fortunate	Nawa	"	0779262083	58-25481 X58	
Paul	Shumba	"	0785863962	-	
James	Bwirajuwa	"	0784694916	24-128078T24	
Zunkuse	Rangina	AGRITEX	0776351746	27-148399D27	
Philip	Toiendepi	Whozoli	0782834969	58-203040 D58	
Samva	Siziba		0787628777	58-3600 D58	
Chawona	Banda	WOZOLI	0775537490	32-064669A32	
Naume	Siziba	Klozoli	0788900318	29-252800 W58	
Jephias	Mafuta	Wozoli	0788781067	04-070344L04	

Appendix 7: Minutes of the Community Meeting at Senkwasi Irrigation Scheme

MIDLANDS

SENKWASI IRRIGATION SCHEME 09/10/25 08 30 am

Introduction

SIRDC began by explaining the agenda of the Resilience Agriculture Cluster Project (RACP), such as water harvesting, alternate sources of energy such as solar, rehabilitation of irrigation scheme and many other climate proofing activities. There was also explains of catchment management.

Expectation and Benefits

1. The use of solar to abstract water will be usefull and it also reduced electricity costs
2. A reliable night storage of water can also be usefull and irrigation at in the evening reducing water loss
3. The farmers also mentioned that it can also be beneficial to grow fruit trees instead of (not growing general trees
4. Solar will ensure a reliable supply of water preventing queues for irrigation
5. Availability of water in storage tanks or dams, may also mean aquaculture is feasible.
6. If revitalised, it means we are also able improve our livelihoods e.g. pay fees and support surrounding communities with food and work.
7. Our health will improve as well as we can pay healthcare

Challenges and Suggestions.

1. Market prices are cheaper than we expect since our means of irrigation and transportation are expensive.
2. Our road is bad such that it also discourages marketers from coming to collect produce.
3. Beans are not giving a good harvest, so we wish to know is it that our soils are not suitable or our farming practices are bad.
4. The pipe that distributes water to the plots needs to sorted, as it is leaking.
5. Canal system is a problem, it could be better if it were a sprinkler system.
6. The scheme give equitable access to all gender and youth, but because of irrigation challenges, water and electricity it is discouraging to a point they drop farming for illegal mining.
7. Problem also being faced is that payments for our produce are delayed and that it is too late to finance next cropping season.
8.

Mathenge 07

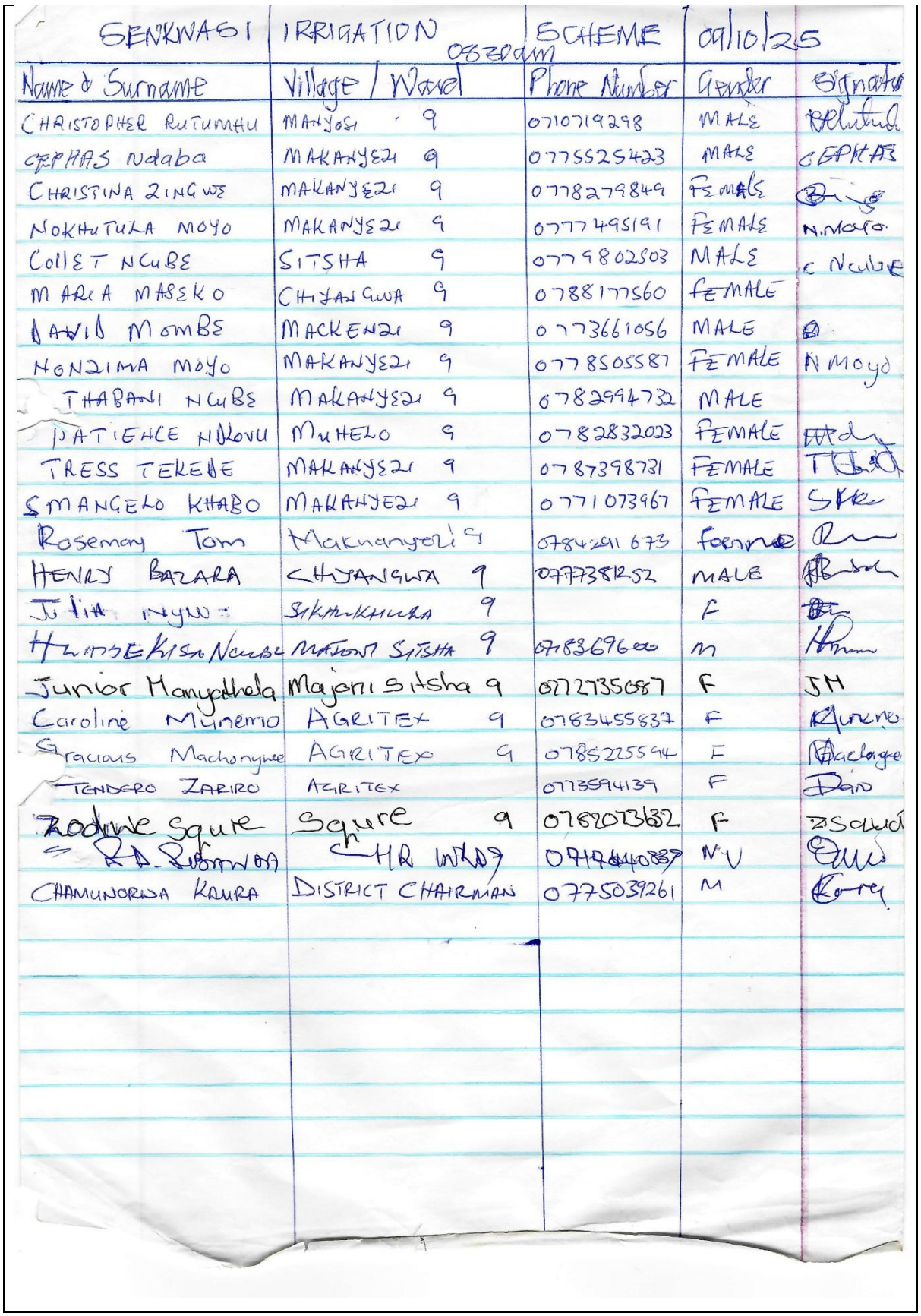
Other Benefits

1. We have become educated such that at household level my appreciation of things have changed.
2. Indirectly we benefit when are able to pay school fees, also our children are expected to do better
3. We also 19.5ha arable land, theres 40ha of arable land in greater scheme area, which can be put to good use if water supply is fixed.
4. There is also idle land which need rehabilitated for it to be used
5. We also expect employment for our locals which also means issues as sexual immorality issues can abated.
6. Also Contractors need to be told to fund general hands from the community

Overall Comments

1. Give first preference to the irrigators to employ for rehabilitation
2. This also reduces theft and promotes ownership of property related to the irrigation scheme
3. We also expect that these visits result in the implementation of RACP

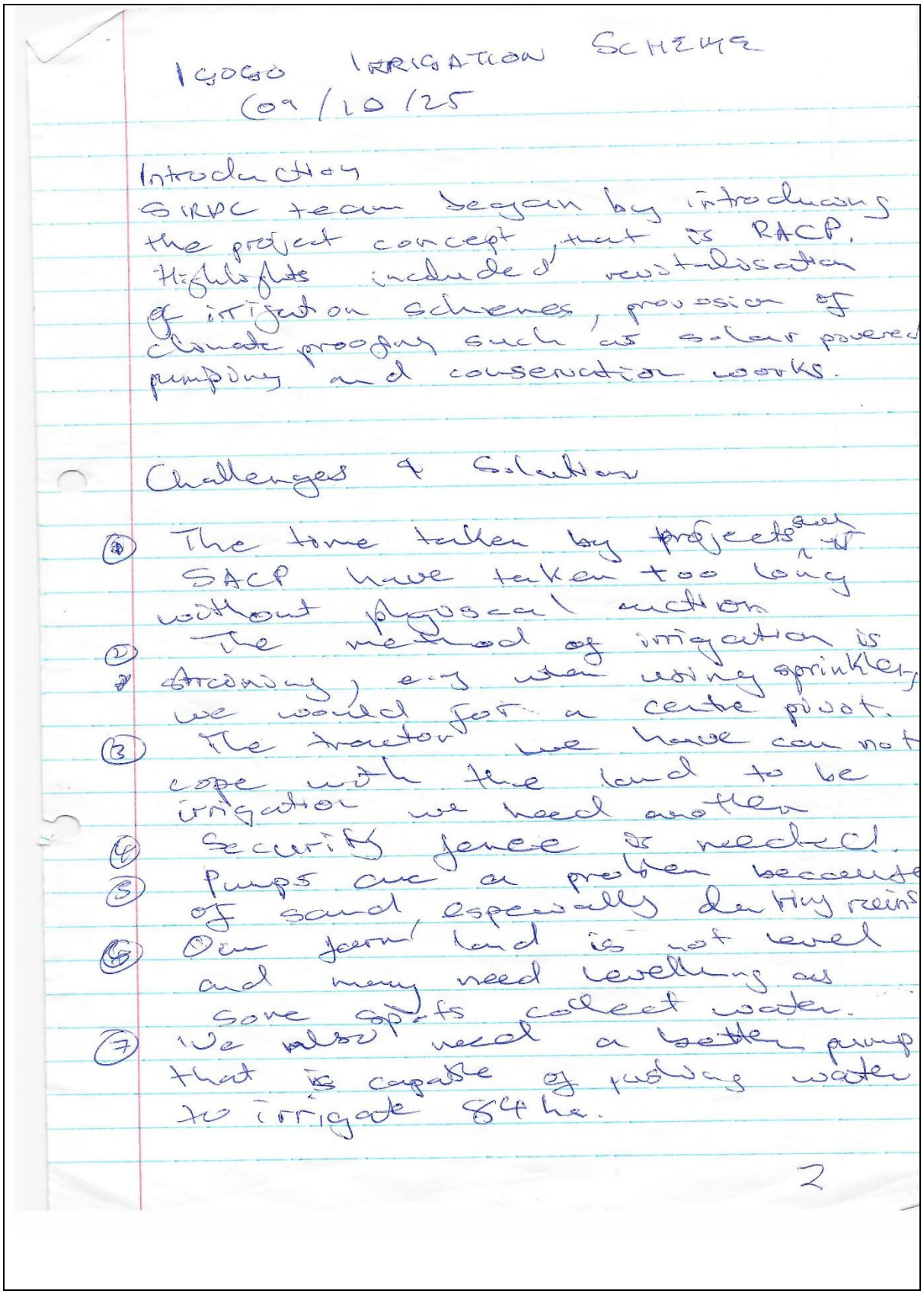
Appendix 8: Community Meeting Register for Senkwasi Irrigation Scheme



SENKWASI IRRIGATION OSZEDAM SCHEME 09/10/25

Name & Surname	Village / Ward	Phone Number	Gender	Signature
CHRISTOPHER RUTUMHU	MANYOSI 9	0710719298	MALE	
CEPHAS Ndaba	MAKANYEZI 9	0775525423	MALE	CEPHAS
CHRISTINA ZINGWE	MAKANYEZI 9	0778279849	FEMALE	
NOKHUTULA MOYO	MAKANYEZI 9	0777495191	FEMALE	N.Moyo
COLLET NCUBE	SITSHA 9	0779802803	MALE	C Ncube
MARIA MASEKO	CHIYANGWA 9	0788177560	FEMALE	
DAVID MOMBE	MACKENZI 9	0773661056	MALE	
NONZIMA MOYO	MAKANYEZI 9	0778505587	FEMALE	N Moyo
THABANI NCUBE	MAKANYEZI 9	0782994732	MALE	
PATIENCE NKOMO	MUHELO 9	0782832023	FEMALE	
TRESS TEKEDE	MAKANYEZI 9	0787398731	FEMALE	
SMANGELO KHABO	MAKANYEZI 9	0771073967	FEMALE	
Rosemary Tom	Maknanyezi 9	0784291 673	female	
HENRY BAZARA	CHIYANGWA 9	0777381252	MALE	
Julia Nyoni	Sikhukhukhu 9		F	
Hamisekisa Ncube	MAJONI SITSHA 9	0783696	M	
Junior Manyathela	Majoni Sitsha 9	0772735087	F	JM
Caroline Munemo	AGRITEX 9	0783455837	F	
Gracious Machongwe	AGRITEX 9	0785225594	F	
TENDERO ZARIRO	AGRITEX	0773594139	F	
Zodwa Squre	Squre 9	0782073682	F	
R.D. Ruswa	HR Intern	0719440887	M	
CHAMUNORWA KAMRA	DISTRICT CHAIRMAN	0775039261	M	

Appendix 9: Community Meeting Minutes for Igogo Irrigation Scheme



IGOGO IRRIGATION SCHEME
09/10/25

Introduction
SIRPC team began by introducing the project concept that is RACP. Highlights included rehabilitation of irrigation schemes, provision of climate proofing such as solar powered pumping and conservation works.

Challenges & Solutions

(1) The time taken by projects since SACP have taken too long without physical action
(2) The method of irrigation is flooding, e.g when using sprinkler we would opt for a centre pivot.
(3) The tractor we have can not cope with the land to be irrigated we need another
(4) Security fence is needed.
(5) Pumps are a problem because of sand, especially during rains
(6) Our farm land is not level and many need levelling as some spots collect water.
(7) We also need a better pump that is capable of pushing water to irrigate 84 ha.

2

(9) The community is prepared to work on the land.

(10) The agritex officer has no accommodation close to the scheme, for them to be able to monitor irrigation activities.

(10) Currently we cropping summer wheat but electricity to ensure the pump supply water, which may result in a loss. Therefore solar power is a priority to supplement.

(11) The shed for storage and transportation of produce are a desperate need.

(12) Due to market fluctuations and middlemen, we usually end up selling crops at a loss just to get money to go buy veggies.

(13) Organisations such as AMA should come back to assist us to market and sell our produce including overseas.

(14)

Expectations & Benefits.

(1) Our livelihoods will improve, we will be to send our children to school.

(2) Transport will become available as there is traffic to the scheme.

(3) Our health will improve.

(4) We can also be able to employ

other community members.

(5) As a community after we submit our complaints may we get feedback

(6) Inputs are also a challenge we seek clarity, if we need to pay for them, let it be clear so we prepare accordingly.

(7) Our irrigation scheme roads need to be rehabilitated, so that even our tractor can move around without getting stuck

(8) If there is need to expand the irrigation, some of the surrounding plots are part of irrigation members and were prepared to relocate.

(9) A challenge of sexual immorality may arise but if sufficient awareness campaigns may assist to reduce/avoid the impact.

(10) Employing the youth in the revitalization activities or activities of irrigation may resolve the decadency issues, and also mentoring the youth accordingly

(11) Also promote the use of irrigations proceeds to family matters.

(12)

Other issues.

(1) The location of pump house is not properly constructed.

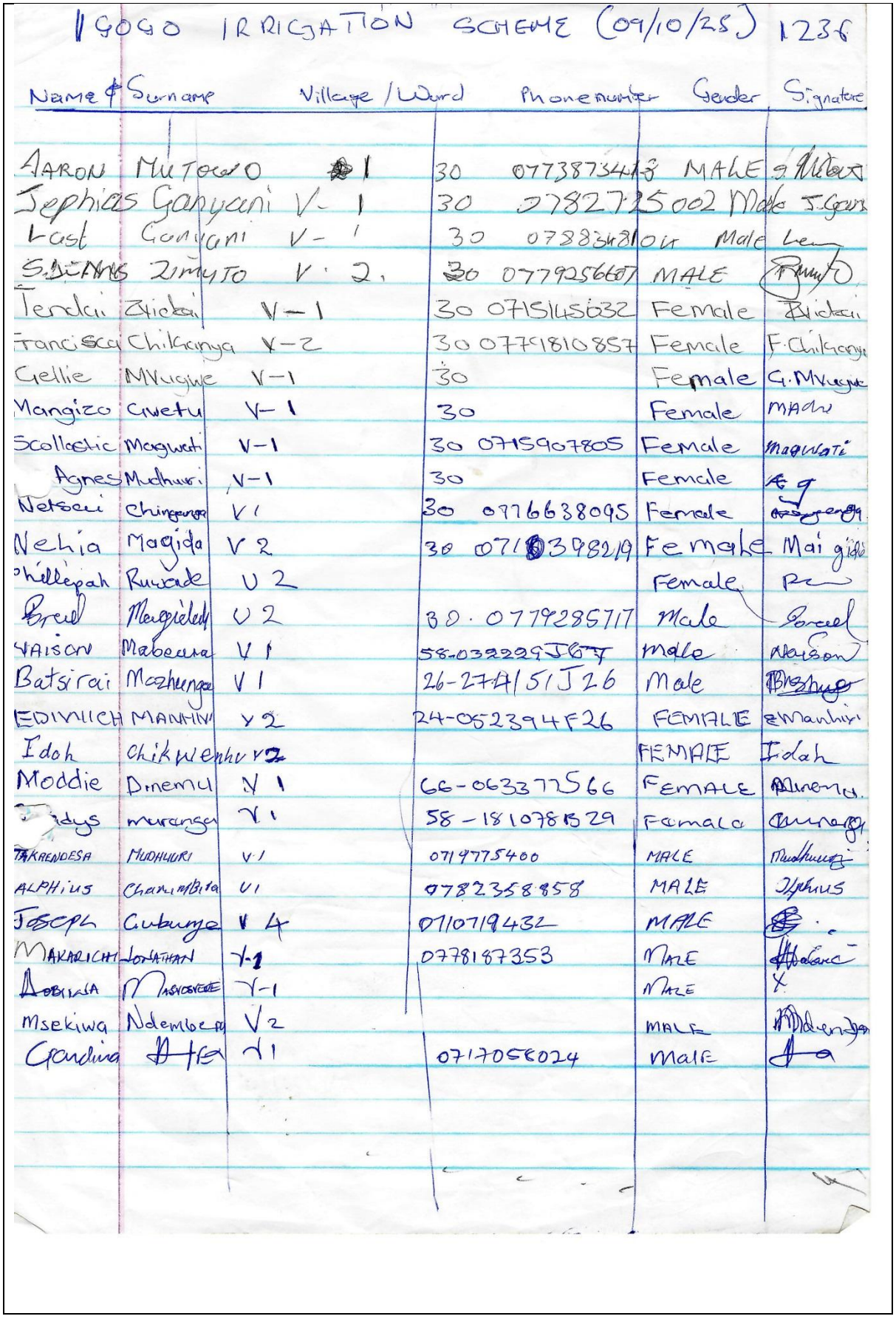
(2) We need water that can be

sage for drinking in field and our homes.

(3) Our harvesting methods need to improve. as current ~~methods~~ are too manual.

5

Appendix 10: Community Meeting Register for Igogo Irrigation Scheme



IGOGO IRRIGATION SCHEME (09/10/25) 1236

Name & Surname	Village / Ward	Phonenumber	Gender	Signature
AARON MUTOKO	V-1	30 0773873443	MALE	
Jephias Ganyani	V-1	30 0782725002	Male	
Last Ganyani	V-1	30 0788348101	Male	
SIMON ZIMUTO	V-2	30 0779256607	MALE	
Tendai Zitekai	V-1	30 0715145632	Female	
Francisca Chikanya	V-2	30 0779181085?	Female	
Gellie MVugiwe	V-1	30	Female	
Mangizo Gwetu	V-1	30	Female	
Scollastic Magwati	V-1	30 0715907805	Female	
Agnes Mudhuri	V-1	30	Female	
Netsai Chingono	V1	30 0776638095	Female	
Nehia Magida	V2	30 0718398219	Female	
Phillepah Ruvarde	V2		Female	
Boreal Mangiveti	V2	30 0779285717	Male	
MAISON Mabeera	V1	58-032229J67	Male	
Batsirai Mazhunga	V1	26-274151J26	Male	
EDWIN CH MANHIVI	V2	24-052394F26	FEMALE	
Idah Chikwenhere	V2		FEMALE	
Moddie Dnemeu	V1	66-063372566	FEMALE	
[illegible]dys murangeri	V1	58-181078529	Female	
TAKUNDESA MUDHUURI	V1	0719775400	MALE	
ALPHIUS CHAMUMBIRA	V1	0782358858	MALE	
JOSEPH Gubunye	V4	0710719432	MALE	
MAKARICHI JONATHAN	V-1	0778187353	MALE	
[illegible] [illegible]	V-1		MALE	
Msekiwa Ndemberere	V2		MALE	
Gandiwa [illegible]	V1	0717056024	Male	

Appendix 11: Detailed Biodiversity Species Lists

The following is a province tree presence matrix found in the project districts and irrigation schemes.

Table 43:Midlands Tree Species

SPECIES NAME	ENGLISH NAME	SHONA NAME
Albizia brevifolia	Mountain/rock Albizia	
Albizia spp	-	Muora
Azanza garckeana	Snott apple	Mutohwe
Bauhinia petersiana	Large white bauhinia	Mubondo, Mumwando, Mun'ando, Mupondo
Bauhnia galpnii	Red bauhnia	Mubhuku/Musekesa
Brachystegia spiciformis	Msasa	Musasa
Brachystergia bohemii	Prince of Wales feathers	Mupfuti, mufute
Bridelia cathartica melanthesoides	Blue sweet berry/knobby bridelia	Mumbarembare/Mupurungu/
Canthium glaucum		Muchechete
Conbretum apiculatun	Red bushwillow	Mugodo, Bonda, Chikukute, Mudziyaishe, Mugoro, Tsingidzi
Dovyalis caffra		Munhunguru
Ekebergia benguelensis	Woodland dog plum	Mudyamhofu/ Mudyavarungu/ Munyimonyimo / Mupumhanhuka / Mupuri
Eucalyptus spp	Gum trees	Mupuranga
Faurea rochetiana	Broad-leaved beechwood	Kapfutsa,Mugarahungwe,Munyanganza, Mutsatsati, Muzhenje
Ficus lutea	Fig tree	Muonde/Mukuyu
Ficus spp	-	Mubhara,
Flueggea virosa	Snowberry tree	Musososti, Muchagauwe, Mudyambuzi, Mugurumhanda,
Gardenia resiniflua	Gummy gardenia	Mutarara, Mutara

SPECIES NAME	ENGLISH NAME	SHONA NAME
Julbernardia globiflora	-	Mutondo, Munondo
Lantana camara		
Mucuna coriacea		Hurukuru
Parinari curatellifolia	Hissing tree/ Mobola plum	Muchakata/ Muhacha
Protea		
Pseudolachnostylis maprouneifolia		Mutsonzowa
Pteleopsis myrtifolia		Musunganyama
Pterocarpus angolensis		Mubvamaropa
Solanum panduriforme	Snake/bitter apple	Munhundurwa
Sterculia africana	African star-chestnut, Tick tree	Mupoposiyana, Munera, Mungosa, Murere, Mutedza,Mutsvedza
Strychonos spinosa		Mutamba
Terminalia sericea	Silver cluster-leaf, Silver terminalia	Mangwe , Mukonono, Mususu, Mutabvu
Uapaca kirkiana		Muzhanje
Ziziphus mucronata	Buffalo-thorn	Chinanga , Muchecheni
Lippia javanica		Zimbani/Zombani

Midlands Grasses/Herbs Species

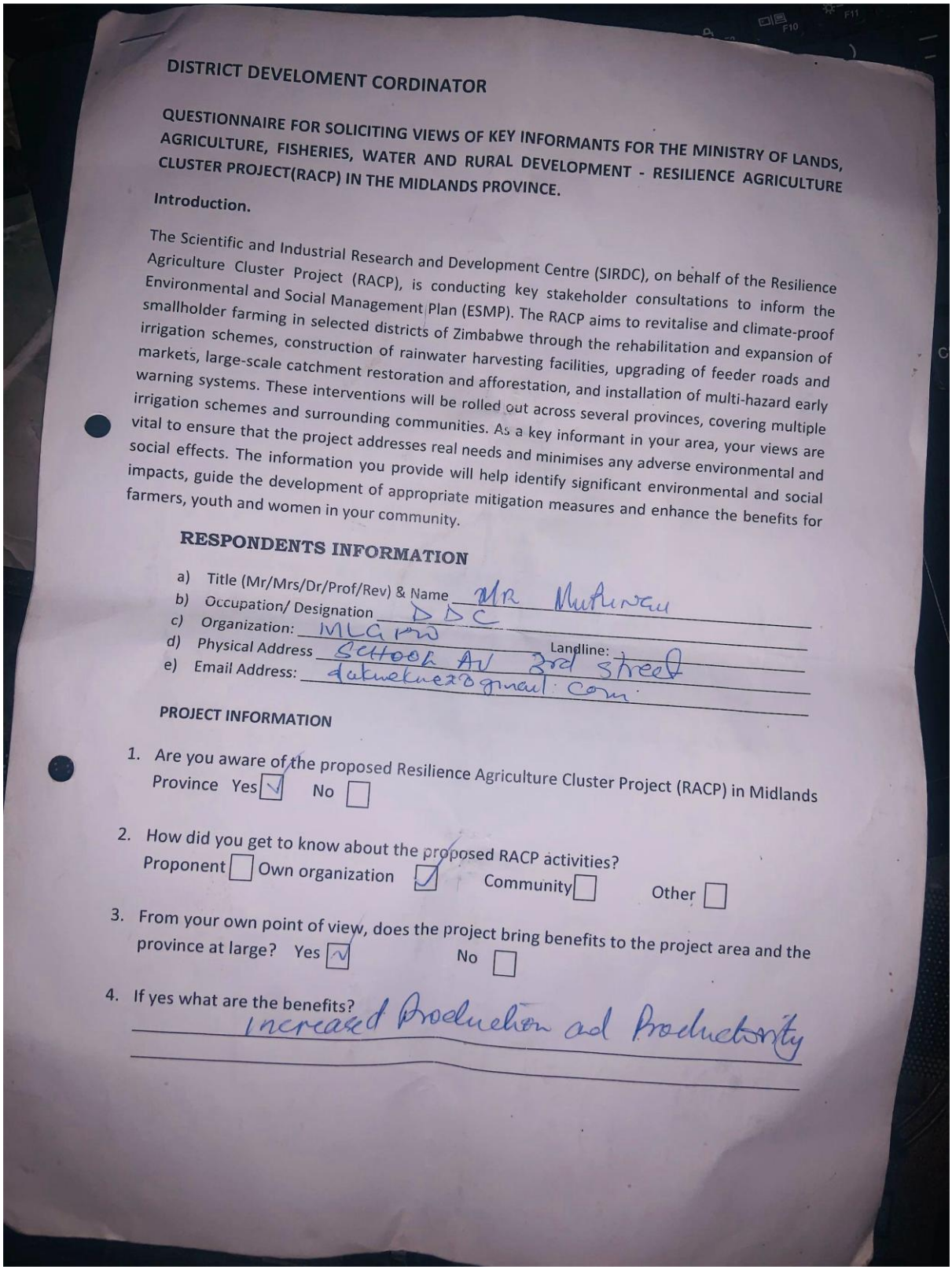
The following is a province grass/herbs presence matrix found in the project districts and irrigation schemes.

Midlands Grasses/Herbs Species

SPECIES NAME	ENGLISH NAME	SHONA NAME
Acanthospermum Hispidum	Upright starbur	Chidhongi, Chaguduma, Chibamahure, Chitopera
Aechynomene indica	Shola/knuckle bean	-
Aloe spp	Aloe	Gavakava
Amaranthus hybridus	Pigweed	Bonongwe, Mbowa, Mowa, Mhowa
Andropogon eucomus	Silver thread/snowflake grass	-
Andropogon Gayanus	Blue grass	Cholongwe, Vatasoma
Avena fatua	Wild oats	-
Bidens biternata	Yellow-flowered blackjack	Guza, Muuwu, Nhungunira, Nama
Bidens Pilosa	Black-jack, Cobbers' pegs	Tsine, Guza, Muuwu, Nhungunura
Chloris Pycnothrix	Spider-web grass	-
Conyza sumatrensis	Flea bane	Gonzo/Gura
Crotalaria lanceolata	Rattle pod	-
Cynodon aethiopicus	Runner Grass	
Cynodon dactylon	Couch grass	Tsangadzi
Cyperus spp.		Nhokwe
Helichrysum adenocarpum	Pink/fairy everlasting	-
Helichrysum herbaceum	Monkey-tail everlasting	-
Hibiscus panduriformis	-	-
Hyparrhenia spp	Thatching grass	Dangaruswa,
Leonotis ocymifolia ocymifolia	Round leaf wild dagga	Kambanje/Mudyatsonzo/
Mellenis Repens	Wild Oat	
Microcloa kunthii	Sickle/pincushion grass	-

SPECIES NAME	ENGLISH NAME	SHONA NAME
Ocimum gratissimum	Wild basil	Chinyamupfukidzi/Munhuwenhuwe /
Phragmites spp.	Common reed	Tsanga
Ricinus hhCommunus	Castor-oil plant	Fute, Mhono, Mufute, Mupfuta
Setaria Verticillata	Bur grass, Cat's tail, Klits grass	-
Sida Alba	-	Dzvairo
Solanum incanum	Bitter/Sodom/Thorn apple	Nhundurwa, Munhomboro, Munhundurwa
Sporobolus pyramidalis	Cats-tail grass	Dindindi/Mupungapunga/ Shambo/Tsinde/Sinde
Sporobolus Stapfianus	Matted dropseed	-
Tagetes Minuta	Khakhi bush, Mexican Marigold, Stinking Roger	Hanya, Mbanda, Muhungunira, Mutsvairo
Tithonia rotundifolia	Red sunflower	-
Themeda triandra	Red/Rooi grass	Chiraramhene
Vernonia adoensis	Shire vernonia	Musikavakadzi
Vernonia galpini	-	-
Vernonia glabra	Cornflower vernonia	-
Leonotis spp.		Mukadzimainza
Ocimum spp.		Rukobvi/Ruridzi

Appendix 12: Kwekwe DDC Questionnaire



DISTRICT DEVELOMENT CORDINATOR

QUESTIONNAIRE FOR SOLICITING VIEWS OF KEY INFORMANTS FOR THE MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT - RESILIENCE AGRICULTURE CLUSTER PROJECT(RACP) IN THE MIDLANDS PROVINCE.

Introduction.

The Scientific and Industrial Research and Development Centre (SIRDC), on behalf of the Resilience Agriculture Cluster Project (RACP), is conducting key stakeholder consultations to inform the Environmental and Social Management Plan (ESMP). The RACP aims to revitalise and climate-proof smallholder farming in selected districts of Zimbabwe through the rehabilitation and expansion of irrigation schemes, construction of rainwater harvesting facilities, upgrading of feeder roads and markets, large-scale catchment restoration and afforestation, and installation of multi-hazard early warning systems. These interventions will be rolled out across several provinces, covering multiple irrigation schemes and surrounding communities. As a key informant in your area, your views are vital to ensure that the project addresses real needs and minimises any adverse environmental and social effects. The information you provide will help identify significant environmental and social impacts, guide the development of appropriate mitigation measures and enhance the benefits for farmers, youth and women in your community.

RESPONDENTS INFORMATION

a) Title (Mr/Mrs/Dr/Prof/Rev) & Name: MR Mutinau
b) Occupation/ Designation: DDC
c) Organization: MLAWR
d) Physical Address: School Av 2nd Street Landline:
e) Email Address: dutwekwe2@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Midlands Province Yes [✓] No [ ]

2. How did you get to know about the proposed RACP activities?
Proponent [ ] Own organization [✓] Community [ ] Other [ ]

3. From your own point of view, does the project bring benefits to the project area and the province at large? Yes [✓] No [ ]

4. If yes what are the benefits? Increased Production and Productivity

DISTRICT DEVELOMENT CORDINATOR

5. Are there any development related concerns likely to arise because of the proposed RACP activities?

Yes ☑ No ☐

If yes explain

Lack of an all inclusive approach to development which goes against the principle of the Whole of Government and Whole of Society approach

6. Are there any cultural/heritage sites located in the project area? Yes ☐ No ☑

7. If yes what is expected of the Developer by the Community?

N/A

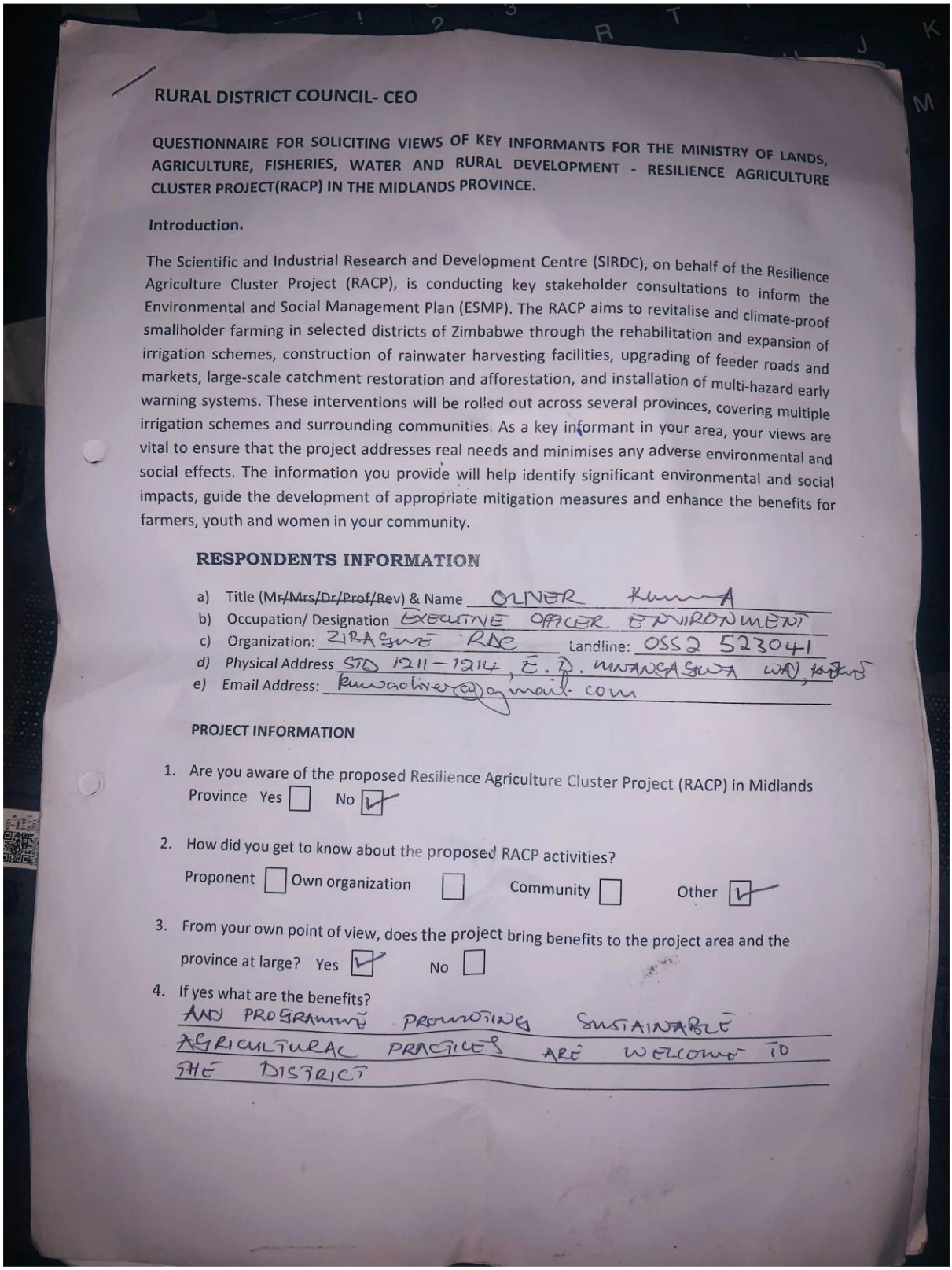
8. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?

Signature _____ Date 14/10/25

DATE STAMP

DISTRICT DEVELOPMENT COORDINATOR
KWEKWE DISTRICT
15 OCT 2025
P.O. BOX 114, KWEKWE
TEL: 05525-23721-3

Appendix 13: Kwekwe Zibagwe RDC Questionnaire



RURAL DISTRICT COUNCIL- CEO

QUESTIONNAIRE FOR SOLICITING VIEWS OF KEY INFORMANTS FOR THE MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT - RESILIENCE AGRICULTURE CLUSTER PROJECT(RACP) IN THE MIDLANDS PROVINCE.

Introduction.

The Scientific and Industrial Research and Development Centre (SIRDC), on behalf of the Resilience Agriculture Cluster Project (RACP), is conducting key stakeholder consultations to inform the Environmental and Social Management Plan (ESMP). The RACP aims to revitalise and climate-proof smallholder farming in selected districts of Zimbabwe through the rehabilitation and expansion of irrigation schemes, construction of rainwater harvesting facilities, upgrading of feeder roads and markets, large-scale catchment restoration and afforestation, and installation of multi-hazard early warning systems. These interventions will be rolled out across several provinces, covering multiple irrigation schemes and surrounding communities. As a key informant in your area, your views are vital to ensure that the project addresses real needs and minimises any adverse environmental and social effects. The information you provide will help identify significant environmental and social impacts, guide the development of appropriate mitigation measures and enhance the benefits for farmers, youth and women in your community.

RESPONDENTS INFORMATION

a) Title (Mr/~~Mrs/Dr/Prof/Rev~~) & Name OLIVER Kuwaza
b) Occupation/ Designation EXECUTIVE OFFICER ENVIRONMENT
c) Organization: ZIBAGWE RDC Landline: 0552 523041
d) Physical Address STD 1211 – 1214, E. D. MUTANGA GWEBA WAY, KWEKWE
e) Email Address: kuwaoliver@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Midlands Province Yes ☐ No ☑
2. How did you get to know about the proposed RACP activities?
   Proponent ☐ Own organization ☐ Community ☐ Other ☑
3. From your own point of view, does the project bring benefits to the project area and the province at large? Yes ☑ No ☐
4. If yes what are the benefits?
   ANY PROGRAMME PROMOTING SUSTAINABLE AGRICULTURAL PRACTICES ARE WELCOME TO THE DISTRICT

RURAL DISTRICT COUNCIL- CEO

5. Are there any development related concerns likely to arise because of the proposed RACP activities?
6. Yes ☐ No ☑

If yes explain N/A

7. Are there any cultural/heritage sites located in the project area? Yes ☑ No ☐

MABURA CAVES, WARD 6, ZHOMBE

8. If yes what is expected of the Developer by the Community?

~~N/A~~ CONSULTATION WITH LOCAL TRADITIONAL LEADERS IS ESSENTIAL

9. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?

NIL

Signature _____ Date 13 / 10 / 25

DATE STAMP:

ZIBAGWE RURAL DISTRICT COUNCIL
EXECUTIVE OFFICER
ENVIRONMENT & SOCIAL SERVICES
P.O. BOX 69, KWEKWE
TELEPHONE: (05525) 22291
FAX: (05525) 23048

Appendix 14: Chirumhanzu RDC Questionnaire

RURAL DISTRICT COUNCIL- CEO

QUESTIONNAIRE FOR SOLICITING VIEWS OF KEY INFORMANTS FOR THE MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT - RESILIENCE AGRICULTURE CLUSTER PROJECT(RACP) IN THE MIDLANDS PROVINCE.

Introduction.

The Scientific and Industrial Research and Development Centre (SIRDC), on behalf of the Resilience Agriculture Cluster Project (RACP), is conducting key stakeholder consultations to inform the Environmental and Social Management Plan (ESMP). The RACP aims to revitalise and climate-proof smallholder farming in selected districts of Zimbabwe through the rehabilitation and expansion of irrigation schemes, construction of rainwater harvesting facilities, upgrading of feeder roads and markets, large-scale catchment restoration and afforestation, and installation of multi-hazard early warning systems. These interventions will be rolled out across several provinces, covering multiple irrigation schemes and surrounding communities. As a key informant in your area, your views are vital to ensure that the project addresses real needs and minimises any adverse environmental and social effects. The information you provide will help identify significant environmental and social impacts, guide the development of appropriate mitigation measures and enhance the benefits for farmers, youth and women in your community.

RESPONDENTS INFORMATION

a) Title (Mr/Mrs/Dr/Prof/Rev) & Name Matongo Leeriab
b) Occupation/ Designation Executive Officer Agric & Nat Resources
c) Organization: Chirumhanzu RDC Landline: 0772860159
d) Physical Address 14 Napier Road Nkuna
e) Email Address: leeriabmatongo@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Midlands Province Yes ☑ Yes No ☐
2. How did you get to know about the proposed RACP activities?
   Proponent ☑ Own organization ☐ Community ☐ Other ☐
3. From your own point of view, does the project bring benefits to the project area and the province at large? Yes ☑ No ☐
4. If yes what are the benefits?
   The project will ensure food security for the small holder farmers. It will also assist in climate change mitigation and Adaptation. Also assist in Infrastructure Rehabilitation and improve accessibility and mobility in the project areas.
5. Are there any development related concerns likely to arise because of the proposed RACP activities? No Negative concerns.

RURAL DISTRICT COUNCIL- CEO

6. Yes ☐ No ☐

If yes explain

N/A

7. Are there any cultural/heritage sites located in the project area? Yes ☐ No ☑

N/A

8. If yes what is expected of the Developer by the Community?

N/A

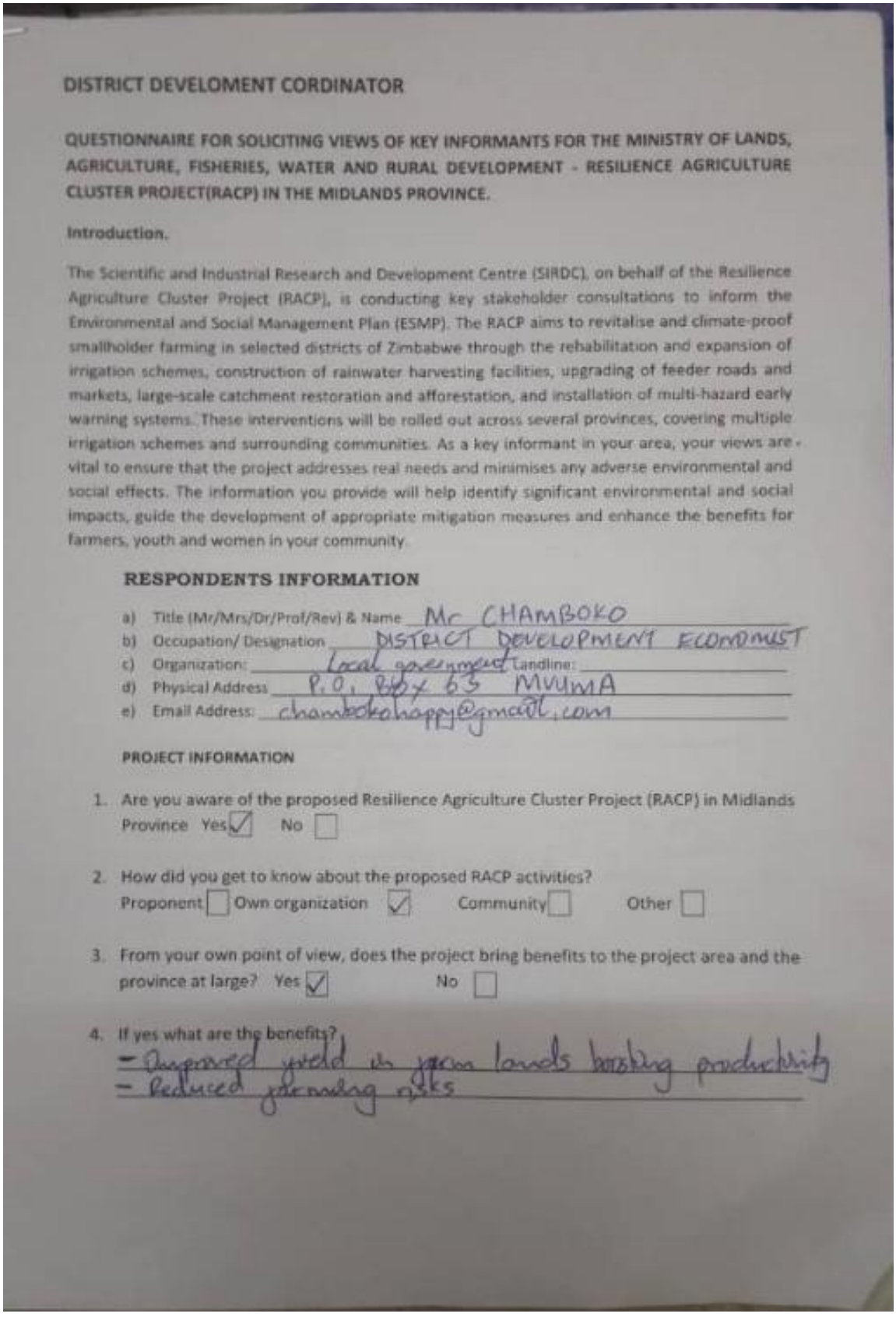
9. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?

Possibility of land degradation and also Ecosystems disturbances, Cutting down of trees would need replacement. ✓

Signature _____ Date 25/10/2025

DATE STAMP:

Appendix 15: Chirumanzu DDC Questionnaire



DISTRICT DEVELOMENT CORDINATOR

QUESTIONNAIRE FOR SOLICITING VIEWS OF KEY INFORMANTS FOR THE MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT - RESILIENCE AGRICULTURE CLUSTER PROJECT(RACP) IN THE MIDLANDS PROVINCE.

Introduction.

The Scientific and Industrial Research and Development Centre (SIRDC), on behalf of the Resilience Agriculture Cluster Project (RACP), is conducting key stakeholder consultations to inform the Environmental and Social Management Plan (ESMP). The RACP aims to revitalise and climate-proof smallholder farming in selected districts of Zimbabwe through the rehabilitation and expansion of irrigation schemes, construction of rainwater harvesting facilities, upgrading of feeder roads and markets, large-scale catchment restoration and afforestation, and installation of multi-hazard early warning systems. These interventions will be rolled out across several provinces, covering multiple irrigation schemes and surrounding communities. As a key informant in your area, your views are vital to ensure that the project addresses real needs and minimises any adverse environmental and social effects. The information you provide will help identify significant environmental and social impacts, guide the development of appropriate mitigation measures and enhance the benefits for farmers, youth and women in your community.

RESPONDENTS INFORMATION

a) Title (Mr/Mrs/Dr/Prof/Rev) & Name Mr CHAMBOKO
b) Occupation/ Designation DISTRICT DEVELOPMENT ECONOMIST
c) Organization: Local government Landline:
d) Physical Address P.O. Box 65 MVUMA
e) Email Address: chambokohappy@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Midlands Province Yes ☑ No ☐

2. How did you get to know about the proposed RACP activities?
Proponent ☐ Own organization ☑ Community ☐ Other ☐

3. From your own point of view, does the project bring benefits to the project area and the province at large? Yes ☑ No ☐

4. If yes what are the benefits?
- Improved yield in farm lands boosting productivity
- Reduced farming risks

DISTRICT DEVELOMENT CORDINATOR

- Employment created during and after the project
- Improved infrastructure and quality of life in rural areas.

5. Are there any development related concerns likely to arise because of the proposed RACP activities?

Yes ☑ No ☐

If yes explain

N/A The project may increase inequality between the farmers with the area
Dependency syndrome on assistance may affect farmers' development discouraging some farmers from long term investment in their own adaptive strategies

6. Are there any cultural/heritage sites located in the project area? Yes ☑ No ☐

7. If yes what is expected of the Developer by the Community?

- Developer should take into account cultural and heritage activities and sites in the area
- to ensure the project is accepted within the communities.

8. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?

- Land degradation
- Reduced on social well-being if project is not fully managed by the integrated beneficiaries
- More emphasis should be reduced on large scale Irrigation schemes to reduce dependency.

Signature _____ Date 05 / 11 / 2025

DATE STAMP:

05 NOV 2025

Appendix 16: Labour Management Plan (LMP)

The Labour Management Plan for the Resilience Agriculture Cluster Project in the Midlands outlines how all workers employed under the project will be managed, protected, and supported in accordance with Zimbabwe's labour legislation, AfDB Operational Safeguard 2, and IFAD's SECAP Standard 5. It is a binding framework for the Project Implementation Unit (PIU), all contractors, consultants, and community workers involved in irrigation rehabilitation, water harvesting, catchment restoration, and Village Business Unit (VBU) development.

The plan's overall purpose is to ensure that every person engaged in project activities works under fair, safe, and dignified conditions that respect their rights and promote well-being. It also provides mechanisms to prevent occupational accidents, child labour, gender-based violence, and discrimination while fostering inclusive and gender-sensitive employment.

Objectives

The Labour Management Plan seeks to achieve the following objectives:

- To ensure that all project workers are employed in compliance with Zimbabwean labour laws and IFAD/AfDB safeguards.
- To promote decent work principles that guarantee fair wages, equal opportunities, and non-discriminatory practices.
- To prevent work-related injuries and illnesses through strong occupational health and safety (OHS) measures.
- To eliminate child and forced labour in all project-related activities.
- To strengthen gender equality and protect workers from sexual exploitation, abuse, and harassment (SEAH).
- To establish transparent and confidential grievance mechanisms for all categories of workers.
- To build the capacity of contractors and implementing agencies to manage labour and safety issues effectively.

Legal and Policy Framework

The LMP is guided by national laws and international standards that set out the minimum obligations for employers and contractors. These include the Zimbabwe Labour Act which governs contracts, working hours, wages, and dispute resolution, and the Factories and Works Act which regulates workplace safety and inspections. It also aligns with the National Social Security Authority Act on social protection, the Public Health Act on workplace sanitation, and the Employment of Young Persons Act which prohibits the use of children under 18 in

hazardous work. The Domestic Violence Act and the Criminal Law (Codification and Reform) Act support the prevention of harassment and violence at the workplace.

At the international level, the plan adopts the principles of the International Labour Organization's core conventions, the IFAD SECAP Standard 5 on labour and working conditions, and the AfDB Operational Safeguard 2 which requires fair treatment of workers, safe and healthy work environments, and strict avoidance of forced or child labour.

Categories of Project Workers

The project involves different groups of workers who must all be covered by the same basic protections. These include:

- Direct workers employed by the PIU such as engineers, safeguards specialists, and administrative staff.
- Contractor and subcontractor employees engaged in construction, rehabilitation, and maintenance.
- Community or casual labourers hired temporarily for works such as planting, fencing, or clearing.
- Consultants providing design, supervision, or audit services.
- Government extension officers and technicians temporarily seconded to the project.

Each employer, whether the PIU or a contractor, is responsible for ensuring compliance with this LMP and maintaining accurate employment records.

Terms and Conditions of Employment

All workers must have written contracts that clearly outline their duties, work hours, wages, benefits, and conditions of service. Contracts should be provided in English and, where necessary, in local languages to ensure full understanding. Wages must meet or exceed the national minimum wage and be paid on a regular schedule, preferably monthly. Working hours should not exceed forty-eight hours per week, with a maximum of twelve hours of approved overtime where necessary. All employees are entitled to rest breaks, sick leave, and maternity or paternity leave as stipulated by law.

Every worker must be registered for social security under the National Social Security Authority (NSSA). Contractors are required to maintain employment registers that include the worker's name, gender, identification number, job title, and wage rate. These registers must be available for inspection by the PIU and the Ministry of Labour.

Occupational Health and Safety (OHS)

A safe working environment is a fundamental requirement for all project activities. Each contractor must develop and implement a site-specific Occupational Health and Safety Plan that complies with the Factories and Works Act and the IFAD/AfDB safety guidelines. The following minimum measures will apply across all sites:

- Each site will appoint a qualified safety officer responsible for daily supervision of OHS compliance.
- All workers must receive safety training before commencing work and refresher training every three months.
- Personal Protective Equipment such as helmets, gloves, boots, masks, and reflective vests will be provided and used at all times.
- First-aid kits and trained first aiders will be available on-site.
- Emergency response procedures including fire safety and evacuation routes will be clearly displayed.
- HIV/AIDS awareness and health promotion campaigns will be implemented regularly.
- Contractors will submit monthly safety reports to the PIU's safeguards team.

In the event of a serious incident such as a fatality or major injury, contractors must notify the PIU within twenty-four hours and IFAD within forty-eight hours in accordance with the IFAD Incident Reporting Procedure. All incidents must be investigated, documented, and corrective actions implemented immediately.

Worker Grievance Mechanism

A confidential and accessible grievance mechanism will be established for all project workers to raise concerns regarding working conditions, discrimination, non-payment of wages, OHS issues, or harassment. Workers may report grievances verbally or in writing through multiple channels including suggestion boxes, designated grievance focal persons, or directly to the site supervisor.

The grievance process will follow a tiered structure:

1. The complaint is logged with the site grievance focal person who attempts resolution within seven days.
2. If unresolved, it is referred to the contractor's safeguards officer for investigation and response.
3. Cases that remain unresolved or are sensitive such as SEAH allegations will be escalated to the PIU's social safeguards specialist for action.
4. Affected workers retain the right to report to the Ministry of Labour or IFAD's independent accountability mechanisms if necessary.

Anonymous complaints will be accepted and handled with confidentiality. SEAH cases will follow survivor-centred procedures ensuring privacy, medical care, and psychosocial support.

Child Labour and Forced Labour Prevention

No individual under the age of eighteen will be employed on any RACP site. Contractors must verify the age of every worker using valid identification such as a national ID or birth certificate. Forced labour, bonded labour, or any form of coercion is strictly prohibited. Any contractor found violating these provisions will face termination of contract and legal action.

Gender Equality and SEAH Prevention

The project promotes equal opportunity for men and women in all employment categories. Recruitment should actively encourage the participation of women, particularly in skilled and supervisory roles. All employees, including management, will undergo mandatory training on gender equality, sexual exploitation and harassment prevention, and respectful workplace behaviour. Each site will have at least one female grievance focal point. Codes of Conduct will be displayed in public spaces and explained to all workers. Violations will result in disciplinary action and referral to law enforcement when necessary.

Roles and Responsibilities

The successful implementation of the Labour Management Plan depends on clear institutional roles. The PIU is responsible for overall coordination, compliance monitoring, and reporting to IFAD and AfDB. Contractors and subcontractors must implement the plan at site level, maintain all relevant records, and provide evidence of compliance. Resident engineers will verify contractor performance and report irregularities. The Social Safeguards Specialist will conduct regular audits, training, and random inspections. Labour inspectors from the Ministry of Labour and officials from the Environmental Management Agency will support enforcement and verification.

Capacity Building and Training

Training will be provided to all project stakeholders to ensure effective implementation of the plan. The PIU will organize orientation sessions for contractors on labour law, occupational safety, and SEAH prevention. Each contractor will provide induction training to new workers before they begin work. Regular refresher courses will cover safe handling of materials, emergency response, environmental awareness, and grievance procedures. Community workers will receive simplified orientation focusing on safety, inclusion, and rights.

Monitoring and Reporting

Labour and safety performance will be tracked continuously. Contractors will submit monthly reports covering worker numbers, gender distribution, training sessions conducted, incidents recorded, grievances received and resolved, and compliance actions taken. The PIU will consolidate these into quarterly safeguard monitoring reports for submission to IFAD and AfDB. Key indicators will include the percentage of workers with valid contracts, number of workers trained on OHS and SEAH, incident rates, and the timeliness of grievance resolution. External audits may be conducted annually to verify compliance and recommend improvements.

Budget and Resources

To ensure sustainability, each contractor will allocate between two and three percent of the total contract value for occupational safety, worker training, and grievance management. The PIU will maintain its own safeguards budget to support monitoring, training, awareness campaigns, and third-party audits.

Review and Update

The Labour Management Plan will be reviewed annually or whenever project scope or labour conditions change significantly. Lessons from field monitoring, audits, or incidents will be used to strengthen the plan. Any revisions will be endorsed by the PIU’s safeguards unit and shared with IFAD and AfDB for review.

Appendix 17: Stakeholder Engagement Plan

EXECUTIVE SUMMARY

The Stakeholder Engagement Plan (SEP) for the Resilience Agriculture Cluster Project (RACP) provides an integrated framework for transparent, inclusive, and accountable engagement across all five provinces targeted under the project. The SEP is central to ensuring that smallholder irrigation rehabilitation, village business unit support, and associated climate-smart agricultural interventions are designed and implemented with full participation and oversight of the communities and institutions they intend to benefit. The plan responds directly to the expectations of the African Development Bank's Integrated Safeguards System (OS1 and OS10) and the IFAD SECAP Standards, which require meaningful participation, information disclosure, grievance redress, and robust monitoring systems throughout the project cycle.

RACP operates in areas where agriculture, food security, and community resilience are deeply affected by climate variability, limited infrastructure, and historic underinvestment. Effective engagement is therefore essential for aligning project interventions with community priorities, addressing institutional capacity gaps, and strengthening local governance systems. The SEP ensures that farmers, women, youth, vulnerable groups, traditional leadership structures, district authorities, provincial departments and national ministries all participate actively at every stage of the project. Learning from other AfDB-financed SEPs such as ZAVaCEP, the RACP SEP incorporates gender-responsive approaches, targeted stakeholder profiling, participatory monitoring, and locally appropriate communication channels that improve outreach in rural and hard-to-reach communities.

The SEP outlines a comprehensive stakeholder mapping that identifies local communities, IMCs, water users, district technical teams, catchment institutions, environmental regulators, private sector actors, and development partners. Engagement processes are adapted to the needs of each group, ensuring that consultations occur in local languages, at accessible venues, and through methods suitable for rural communities, including field demonstrations, focused group discussions for women and youth, village-level awareness sessions, and district and provincial multi-sectoral coordination meetings. The plan also establishes a harmonised system linking scheme-level management structures with district and provincial stakeholders, supported by

the national Project Management Unit. This ensures consistent communication, coordinated planning, and timely reporting across all provinces.

A central feature of the SEP is the integrated Grievance Redress Mechanism (GRM), which provides multiple safe entry points for communities to register concerns related to land management, construction works, labour practices, safety, water distribution, inclusion, and potential social risks including SEAH/GBV. The GRM is designed to be accessible to all stakeholders, with confidential channels for sensitive cases and structured escalation processes from scheme to district, provincial, national, and—when necessary—development partner levels. The system emphasises timely resolution, fairness, documentation, and feedback to complainants, strengthening community trust and compliance with AfDB and IFAD safeguards.

The SEP provides a detailed implementation structure, specifying roles and responsibilities for Agritex extension officers, district development coordinators, RDCs, ZINWA, EMA, irrigation and mechanisation departments, PIU safeguards staff, contractors, IMCs and WUAs. Provincial departments provide oversight and harmonisation across districts, while the PMU consolidates monitoring data, coordinates risk management, ensures adherence to the SEP and GRM, and reports regularly to AfDB and IFAD. The plan incorporates capacity-building provisions, recognising gaps in community facilitation, safeguards understanding, gender-responsive communication, documentation, and participatory monitoring which emerged during scoping consultations.

The SEP includes a monitoring and evaluation framework that tracks engagement quality, gender and youth participation, grievances received and resolved, behavioural change outcomes, stakeholder satisfaction, and documentation quality. Reporting is undertaken quarterly at district and provincial levels and is consolidated nationally for submission to IFAD and AfDB. This ensures consistent oversight and allows early identification of operational risks, emerging conflicts, and areas requiring corrective action.

Overall, the SEP positions RACP as an inclusive, socially anchored and community-responsive investment. It strengthens institutional collaboration, builds local ownership, enhances transparency, and ensures that project benefits reach intended groups equitably. Through this SEP, RACP commits to a standard of engagement suitable for AfDB and IFAD-funded operations—continuous, gender-responsive, conflict-sensitive, well-documented, and fully

integrated with environmental and social risk management systems that safeguard people, ecosystems, and long-term development outcomes.

ABBREVIATIONS

Abbreviation	Meaning
AGRITEX	Agricultural Technical and Extension Services
AfDB	African Development Bank
BVO	Business Venture Officer
DDC	District Development Coordinator
EMA	Environmental Management Agency
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussion
GBV	Gender Based Violence
GRM	Grievance Redress Mechanism
IMC	Irrigation Management Committee
IPM	Integrated Pest Management
IPMP	Integrated Pest Management Plan
IFAD	International Fund for Agricultural Development
ISS	Integrated Safeguards System
MLAFWRD	Ministry of Lands, Agriculture, Fisheries, Water and Rural Development
NGO	Non-Governmental Organisation
O and M	Operation and Maintenance
OS	Operational Safeguard
PDC	Provincial Development Coordinator
PIU	Project Implementation Unit
PMP	Pest Management Plan
PMU	Project Management Unit
RACP	Resilience Agriculture Cluster Project
RDC	Rural District Council
SCC	Sub Catchment Council
SECAP	Social, Environmental and Climate Assessment Procedures
SEP	Stakeholder Engagement Plan
SEAH	Sexual Exploitation, Abuse and Harassment
UDC	User Development Committee
WUA	Water Users Association
ZINWA	Zimbabwe National Water Authority

DEFINITIONS

Term	Definition
Affected Persons	Individuals, households or groups directly impacted by project activities in ways that may be positive or negative.
Community Stakeholders	Members of local communities who may be influenced by irrigation rehabilitation or agricultural activities.
Consultation	A process of dialogue aimed at sharing information, obtaining views and responding to community concerns.
Disadvantaged or Vulnerable Groups	Individuals or households that may have limited ability to participate effectively due to age, gender, disability, poverty or marginalisation.
Disclosure	The sharing of project information in a clear and accessible manner prior to decision making and during project implementation.
Engagement	Continuous interaction with stakeholders that includes communication, participation and consultation.
Environmental and Social Safeguards	Standards and procedures that ensure projects avoid or minimise negative environmental and social impacts while enhancing positive benefits.
Focus Group Discussion	A discussion with a small group of individuals who share common characteristics or experiences to gather views that may not come out in larger meetings.
Grievance	Any concern, complaint or dissatisfaction raised by a stakeholder regarding project activities or impacts.
Grievance Redress Mechanism	A transparent and accessible system that receives, records, assesses and resolves grievances in a timely manner.
Information Disclosure	The provision of relevant project information so that stakeholders can participate meaningfully and make informed decisions.
Irrigation Management Committee	A committee representing irrigators responsible for day to day coordination and communication at scheme level.
Meaningful Participation	The involvement of stakeholders in a manner that gives them adequate time, information and opportunity to influence decisions.
Monitoring	The continuous assessment of consultation activities, grievance handling and engagement quality to ensure effective implementation of the SEP.
Project Affected Parties	Individuals or groups that may experience direct impacts from project works or operations.
Safeguards Specialists	Environmental and social professionals responsible for ensuring compliance with IFAD and AfDB requirements.
Stakeholder	Any person, group or institution that may be affected by or have influence over project outcomes.

Term	Definition
Stakeholder Engagement Plan	The document that outlines how stakeholders will be identified, informed and consulted throughout the project lifecycle.
Traditional Leadership	Community governance structures that include village heads, headmen and chiefs responsible for mobilising and guiding communities.
Water Users Association	A formal or semi-formal structure responsible for coordinating irrigation water use, fee collection and conflict management.
ZINWA Permit Holder	Any individual, institution or scheme authorised by ZINWA to abstract or use water within the catchment.

1. INTRODUCTION

1.1 Background

The Stakeholder Engagement Plan (SEP) forms part of the Environmental and Social Management Instruments for the **Resilience Agriculture Cluster Project (RACP)** in Midlands, implemented under the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD). RACP is financed through a blended facility from the **African Development Bank (AfDB)** and the **International Fund for Agricultural Development (IFAD)**.

The project targets the rehabilitation and upgrading of **irrigation schemes** in Midlands: **Wozoli, Sessombe, Senkwasine, Igogo and Wozoli**, as well as associated catchment restoration, market infrastructure development, and village business units. These clusters fall within the **Sanyati Catchment**, where irrigation systems, water storage structures, roads, and market facilities have deteriorated due to climate shocks, inadequate maintenance, and resource constraints.

The RACP SEP is designed to ensure **inclusive, meaningful and continuous engagement** with all stakeholders throughout the project cycle, planning, construction, operation, and closure. It also ensures alignment with:

- **AfDB Integrated Safeguards System (ISS, OS1 & OS10)**: requiring robust stakeholder identification, systematic consultation, disclosure, and a functional grievance mechanism.
- **IFAD SECAP Standards (SECAP 1 and 2)**: requiring early engagement, participation of vulnerable groups, incorporation of environmental and social risk feedback, and community involvement in implementing safeguard measures.

The SEP complements several Standalone Management Plans that are part of the project safeguard instruments, notably:

- **The Grievance Redress Mechanism (GRM) Plan**, which details how all project-related grievances—including labour, land access, irrigation scheduling, infrastructure works, and GBV/SEA—are received, recorded, processed, and resolved.
- **The Pest Management Plan (PMP/IPMP)**, which guides stakeholder participation in safe pesticide use, farmer training, integrated pest management demonstrations, and reporting of pesticide-related incidents.

This approach ensures that all environmental and social concerns arising from irrigation rehabilitation, construction activities, catchment restoration, and operational responsibilities are addressed collaboratively with stakeholders at national, provincial, district, ward, and scheme level.

1.2 Purpose of the Stakeholder Engagement Plan

The purpose of the SEP is to establish a coordinated and structured engagement process that:

1. **Facilitates transparent, continuous information flow** between the project and stakeholders.
2. **Ensures that project-affected persons (PAPs)** particularly women, youth, vulnerable groups and farmers to participate meaningfully in planning and implementation.
3. **Provides a platform for early identification of risks and opportunities**, improving project decisions and ownership.
4. **Strengthens institutional coordination** across IMCs, AGRITEX, District Planners, RDCs, Irrigation Departments, Mechanisation, and Provincial and National PMUs.

5. **Ensures alignment with AfDB ISS OS10 and IFAD SECAP 1 & 2**, particularly on:
    - Inclusive stakeholder participation
    - Environmental and social risk communication
    - Community feedback integration
    - Monitoring of stakeholder engagement performance
6. **Supports effective implementation of the GRM and Pest Management Plans** by ensuring that:
    - The GRM is widely known and accessible at scheme level.
    - Pesticide and agrochemical risks are properly communicated using IMCs, AGRITEX and district agricultural staff.

The SEP is therefore a cornerstone of project transparency, accountability, and sustainable development.

1.3 Objectives of the SEP

The key objectives of the RACP Midlands SEP are to:

a. Identify and profile all project stakeholders

Including IMCs, WUAs, farmers, women groups, youth representatives, traditional leaders, district authorities, and technical agencies such as ZINWA, EMA, AGRITEX, Mechanisation, and Irrigation Departments.

b. Define an engagement approach that meets international best practice

Structured according to **AfDB OS10** and **IFAD SECAP**, ensuring timely access to information and active participation at all stages.

c. Implement inclusive engagement approaches

Using culturally and linguistically appropriate tools, including dedicated consultations with:

- Women farmers
- Youth groups
- Elderly irrigators
- People with disabilities
- Vulnerable or marginalised households

d. Strengthen coordination between institutions

By providing a clear mechanism for information flow and joint actions between:

- IMCs and AGRITEX
- District SACP and Agricultural Officers
- District Development Coordinator (DDC)
- Rural District Councils (RDCs)
- Provincial structures (PDC, Provincial AGRITEX/Irrigation/Mechanisation)
- National PMU and MLAFWRD

e. Enhance risk communication
Ensuring communities receive timely updates on:

- Construction activities
- Occupational health and safety
- Water abstraction schedules
- Catchment restoration activities
- Potential pesticide hazards (linked to the **Pest Management Plan**)
- Rights and responsibilities under the GRM

f. Provide free, accessible grievance pathways
Ensuring all PAPs understand and use the **Grievance Redress Mechanism**, including:

- Community-level reporting
- District-level grievance panels
- RACP National PMU escalation system
- Special SEA/GBV-sensitive referral pathways

g. Integrate stakeholder feedback into project decision-making
Through structured reporting, feedback loops, and participation in local monitoring.

2. LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK FOR SEP

Stakeholder engagement under the RACP in Zimbabwe is governed by a combination of national legislation, local authority frameworks, sectoral regulations, and development partner safeguard requirements. This chapter outlines the regulatory and policy context that guides consultations, disclosure, participation, and grievance handling. It situates the Stakeholder Engagement Plan (SEP) within Zimbabwe's statutory obligations and the safeguards frameworks of the African Development Bank (AfDB ISS, 2023) and the International Fund for Agricultural Development (IFAD SECAP, 2021). The chapter also clarifies linkages to the standalone Grievance Redress Mechanism (GRM) and Pest Management Plan (PMP), both of which contain procedures that must be communicated through the SEP.

2.1 National Legislative Framework

Zimbabwe's environmental and social governance system places stakeholder participation, transparency, environmental protection, and public consultation at the centre of development planning. Several statutes directly require, support or inform project-level engagement processes.

2.1.1 Environmental Management Act [Chapter 20:27]

The Environmental Management Act (EMA) remains the backbone of environmental governance in Zimbabwe, requiring public participation at all stages of environmental assessment and compliance monitoring. Part II of the Act obligates developers to undertake Environmental Impact Assessment (EIA) processes for prescribed activities, including irrigation scheme development, dam rehabilitation, and water infrastructure. The Act requires that all potentially affected stakeholders be consulted in a meaningful and timely manner.

The Environmental Management (Environmental Impact Assessment and Ecosystem Protection) Regulations, 2007, expand on this requirement by specifying that:

- Communities and interest groups must be consulted at scoping, assessment, and review stages.
- Minutes of meetings, attendance registers, and concerns raised must be documented and included in environmental reports.
- Developers must adopt mitigation measures that reflect community concerns.

Given the strong emphasis on irrigation rehabilitation, catchment restoration, and market infrastructure, RACP is fully subject to these provisions. The project's SEP therefore operationalises this legislative requirement by providing structured consultation pathways across planning, construction, operation and decommissioning phases.

2.1.2 Rural District Councils Act [Chapter 29:13]

Rural District Councils (RDCs) are the statutory local planning authorities. The Act mandates RDCs to:

- Approve development activities in their districts
- Coordinate ward-level consultations
- Provide oversight on land use, water access and community welfare
- Support grievance management at community level

Under RACP, RDCs are central partners in community mobilisation, verification of stakeholder lists, monitoring of project works, and escalation of grievances that cannot be resolved at IMC, AGRITEX or scheme level.

2.1.3 Water Act and ZINWA Act

Irrigation rehabilitation and abstraction under RACP fall under the Water Act and Zimbabwe National Water Authority (ZINWA) Act. These laws require:

- Consultation with water users during allocation and renewal of water permits
- Adherence to catchment outline plans developed with stakeholder participation
- Notification of communities during major works affecting dams, canals and weirs

The SEP ensures that engagement with farmers, IMCs, Water User Associations (WUAs), and ZINWA sub-catchment councils occurs before construction works affecting water flows or storage capacities.

2.1.4 Public Health Act

Public health considerations are essential during construction and operation of irrigation and market infrastructure. The Act assigns duties to local authorities and district health offices to guard against community health risks such as:

- Waste mismanagement
- Water contamination
- Vector breeding
- Occupational and community health hazards

This SEP supports compliance by integrating public health messaging and awareness at community meetings, pre-construction briefings, and OHS sessions delivered jointly with district health officers.

2.1.5 Labour Act and NEC Agriculture Regulations

Labour engagement requirements influence the SEP because contractors and labourers must be informed of:

- Terms of employment
- Rights under NEC Agriculture
- OHS responsibilities
- Sexual exploitation and abuse (SEA) prohibitions
- Reporting channels under the GRM

The SEP aligns with the Labour Management Plan (LMP) and will ensure that community workers, casual labourers, contractors and farmer groups are informed of their rights, obligations and grievance pathways.

2.1.6 Other Relevant Legislation

Several additional laws support stakeholder engagement:

- Parks and Wildlife Act (biodiversity consultations and protection near natural habitats)
- Forest Act (community involvement in tree planting and fire management)
- Traditional Leaders Act (coordination with chiefs, headmen, village heads)
- Devolution and Decentralisation Policy (participatory planning and local accountability)

Together, these provide a robust national framework supporting community-centred engagement.

2.2 Development Partner Requirements

The RACP is funded by AfDB and IFAD, both of which require comprehensive stakeholder engagement consistent with international good practice. Stakeholder engagement is therefore not only a national legal obligation but a binding donor requirement.

2.2.1 AfDB Integrated Safeguards System (ISS, 2023)

OS1 – Environmental and Social Assessment

Operational Safeguard 1 mandates early identification of stakeholders and assessment of their concerns during project design. It requires two-way engagement throughout all phases of a project, including disclosure of E&S documents and systematic integration of community feedback. The OS emphasises that vulnerable groups (women, youth, elderly farmers, people with disabilities) must be meaningfully represented in decision-making.

The SEP operationalises OS1 by:

- Ensuring continuous engagement with communities throughout the ESMP cycle
- Providing specific platforms for the participation of marginalised groups
- Integrating engagement feedback into environmental and social management measures

OS10 – Stakeholder Engagement and Information Disclosure

OS10 establishes mandatory requirements for:

- Stakeholder identification and analysis
- Development of an SEP as part of the E&S system
- Free, prior and informed participation
- A functional grievance redress mechanism

- Monitoring and reporting of engagement effectiveness

RACP's standalone GRM Plan fully meets OS10 requirements and is referenced throughout the SEP, especially in sections on grievance escalation, GBV-sensitive reporting, and community information disclosure.

2.2.2 IFAD Social, Environmental and Climate Assessment Procedures (SECAP, 2021)

SECAP 1 – Environmental and Social Assessment

SECAP 1 requires systematic stakeholder engagement during screening, assessment and the implementation of mitigation measures. It emphasises:

- Early disclosure of project information
- Participation of project-affected people in risk identification
- Incorporation of local knowledge into the ESMP and associated plans

This SEP ensures these requirements are fulfilled through structured, inclusive consultations at scheme, ward, district, province and national levels.

SECAP 2 – Biodiversity, Ecosystems and Natural Resource Management

Because RACP includes catchment restoration, gully reclamation, riverbank protection and dam desiltation control, SECAP 2 is triggered. The standard requires consultation with:

- Local communities using natural resources
- Traditional leaders
- ZINWA and EMA
- Farmer groups and water users

The Pest Management Plan (PMP) also derives from SECAP 2, and thus stakeholder engagement under this plan is covered within the SEP.

Other Relevant SECAP Themes

While SECAP 1 and 2 are the primary standards for the SEP, engagement also supports:

- SECAP 5 (Labour and Working Conditions) through contractor consultations and worker awareness
- SECAP 6 (Community Health and Safety) through OHS consultations and risk communication
- SECAP 9 (Climate Risk and Resilience) through climate-smart training and awareness sessions
- SECAP 10 (Stakeholder Engagement & GRM) through clear grievance pathways

2.3 Institutional Framework for Stakeholder Engagement

The implementation of the SEP in Midlands requires coordinated action across multiple institutions at national, provincial, district, ward and scheme levels. These are the networks through which information flows, decisions are made, and grievances are escalated.

2.3.1 National Institutions

- **National PMU (Project Management Unit)** under MLAFWRD oversees SEP implementation, resource allocation, reporting and compliance with AfDB and IFAD requirements.
- **MLAFWRD Directorate** provides technical oversight on irrigation components and leads national-level disclosure.

2.3.2 Provincial Institutions

- **Provincial AGRITEX Office** leads farmer mobilisation, AGRITEX extension coordination, and technical backstopping.
- **Provincial Irrigation and Mechanisation Departments** supervise engineering works, maintain communication with district officers, and verify issues raised via the GRM.
- **Provincial Development Coordinator (PDC)** ensures alignment with provincial development strategies.

2.3.3 District Level Institutions

- **District Development Coordinator (DDC)** plays a central governance role, chairing multi-stakeholder engagements, validating district-level plans, and coordinating dispute resolution.
- **Rural District Councils (RDCs)** handle local planning approvals, land use coordination, and grassroots mobilisation.
- **District AGRITEX Officers** lead technical engagement with farmers, support IMCs, and bridge communication between PMU and communities.
- **District SACP/RACP Agricultural Extension Officer** ensures consistency of engagement methods with ongoing government and donor programmes.

2.3.4 Ward and Community Level Institutions

- **Irrigation Management Committees (IMCs) and WUAs** serve as the primary interface between farmers and project implementers. They oversee day-to-day scheme governance, water distribution, conflict resolution, and grievance intake.
- **Traditional Leaders (Chiefs, Headmen, Village Heads)** play a critical role in local legitimacy, mobilisation and consensus building.
- **Farmer Groups, Women Associations and Youth Representatives** ensure broad-based inclusion and equity.

2.4 SEP Linkages with the GRM Plan and the Pest Management Plan

2.4.1 Grievance Redress Mechanism (GRM)

The GRM Plan provides detailed procedures for handling complaints related to:

- Construction works
- Water distribution conflicts
- Dam and canal safety concerns
- Labour disputes
- SEA/GBV incidents
- Pesticide-related health hazards

This SEP supports GRM implementation by ensuring communities understand:

- Where to report grievances

- Who receives complaints (IMCs, AGRITEX, Scheme GRM Focal Points)
- How grievances are escalated to district and national PMU levels
- How SEA/GBV cases follow survivor-centred pathways

2.4.2 Pest Management Plan (PMP)

The PMP/IPMP contains community-sensitive elements requiring active participation, including:

- Training on safe pesticide use and handling
- Triple-rinsing procedures and empty container return schemes
- Hazard awareness relating to agrochemical exposure
- Promotion of non-chemical alternatives and Integrated Pest Management (IPM)
- Reporting pesticide poisoning cases through the GRM

This SEP integrates PMP requirements by ensuring that:

- AGRITEX officers lead pesticide-related community training
- IMCs coordinate safe storage and collective handling practices
- District health offices participate in awareness sessions
- Community feedback on pesticide risks informs PMP updates

3. PRIORITY ENVIRONMENTAL AND SOCIAL RISKS FOR SEP

The RACP spans five provinces; Mashonaland Central, Mashonaland East, Mashonaland West, Midlands and Matabeleland North. Although each province has distinct agro-ecological features, the environmental and social risks identified in the irrigation schemes represent the typical risk profile across all targeted irrigation schemes under RACP. The nature of communal irrigation, rural water systems, catchment degradation, shifting climate patterns, and socio-economic conditions means that risks tend to recur in similar forms at scheme, district and provincial levels.

Stakeholder engagement is therefore essential for all provinces, districts and wards, ensuring that communities, traditional leaders, scheme governance structures, district authorities, provincial technical departments and project implementers participate in identifying, mitigating and monitoring risks across the full RACP footprint.

3.1 Water Resource Pressure, Abstraction Conflicts and Inequitable Distribution

Across all provinces, irrigation schemes rely on rivers, dams and weirs managed by ZINWA under various catchment councils. Climate variability has reduced water reliability, resulting in:

- Seasonal water scarcity
- Competition among upstream and downstream users
- Inequitable intra-scheme distribution during peak periods
- Rising conflict between irrigation and livestock water demands

- Community concerns over new pump capacities or enlarged command areas

These risks were observed in Midlands and Matabeleland North through RACP reconnaissance visits and district-level consultations.

Stakeholder engagement is required to:

- Clarify abstraction rights, water permits and seasonal flows
- Clarify land rights and tenure.
- Facilitate dialogue between ZINWA, IMCs, AGRITEX and farmers
- Share information on design changes that affect water demand
- Integrate water-saving approaches promoted under IFAD SECAP
- Strengthen conflict resolution through the GRM

AfDB OS1 and OS4, as well as SECAP 2, mandate transparent water resource consultations.

3.2 Catchment Degradation, Siltation and Dam/Canal Vulnerabilities

Dam siltation, streambank cultivation, veld degradation and gully erosion affect irrigation schemes all five provinces.

Typical cross-province risks include:

- Rapid siltation of upstream rivers feeding dams
- Trees and shrubs growing on dam embankments
- Failure of canals due to erosion or collapsed embankments
- Gully expansion threatening headworks and roads
- Unregulated land clearing and deforestation

Stakeholder engagement is required to support:

- Dam embankment maintenance
- Catchment protection committees
- Ward-level natural resource management dialogues
- Community-based erosion control training
- EMA-led environmental awareness sessions

These risks activate SECAP 2 and AfDB OS1 requirements for participatory resource management.

3.3 Deteriorated or Hazardous Irrigation Infrastructure

Across all five provinces, ageing irrigation infrastructure presents multiple risks:

- Exposed or undersized electrical cables (e.g., Chippa)
- Faulty pump houses lacking secure cages
- Vandalism and theft of electrical components and transformers
- Dilapidated night storage dams

Stakeholder engagement must address:

- Community awareness of electrical and mechanical hazards
- Consultations on placement of protective fencing and cages
- Joint surveillance approaches (IMCs, village heads, youth groups)
- Reporting of vandalism through the GRM

Compliance is aligned with AfDB OS4 on Community Health, Safety and Security.

3.4 Community Health, Safety and WASH Risks

RACP provinces face:

- Dust emissions from construction traffic
- Heavy machinery safety concerns on rural roads
- Contractor camp health and sanitation risks
- Unsafe handling of materials and fuel
- Lack of potable water at scheme centres
- Sanitation gaps at markets, agro-processing points, VBUs

Health and safety risks are cross-cutting and triggered across all sites once construction and rehabilitation begin.

Stakeholder engagement must:

- Disseminate public health information
- Coordinate district health offices and EHTs
- Inform communities of construction schedules and hazards
- Reinforce emergency response and accident reporting mechanisms

These actions address AfDB OS4 and SECAP 6 obligations.

3.5 Agrochemical Risks, Increasing Pesticide Use and IPM Adoption

Introduction of resuscitation of irrigation across all five provinces will typically lead to increased pesticide and herbicide use. Without proper training and monitoring, risks include:

- Pesticide poisoning
- Water contamination
- Misuse of chemicals
- Unsafe disposal of containers
- Drift affecting homesteads, gardens and livestock
- Child exposure during spraying

Engagement is required to:

- Promote IPM principles from the Pest Management Plan
- Train farmers via AGRITEX
- Create awareness of triple-rinsing and safe storage

- Set up designated chemical disposal points
- Strengthen reporting of pesticide incidents via the GRM

This aligns with SECAP 2, AfDB OS1, and national pesticide safety regulations.

3.6 Gender Inequities, Limited Youth Participation and Vulnerable Group Exclusion

Stakeholder consultations revealed:

- Women struggling with heavy irrigation systems
- Youth excluded from governance roles
- Power imbalances in IMCs
- Limited participation of vulnerable groups (elderly, disabled)

Across all provinces, engagement must:

- Facilitate women-only and youth-only consultative forums
- Adjust training times and methods to accommodate women's workloads
- Promote inclusive IMC governance structures
- Ensure that women and youth representatives are part of GRM committees
- Include the elderly and persons with disabilities in planning and O&M decisions

This is required under AfDB OS10 and IFAD SECAP 1.

3.7 Labour Conditions, Contractor Conduct and SEA/GBV Risks

Labour risks observed in Midlands apply uniformly across other RACP provinces:

- Local labour expectations vs contractor hiring plans
- Potential child labour
- Worker-community conflict
- Sexual exploitation and abuse risks
- Unsafe work practices
- Lack of clarity on rights and obligations

The SEP must support:

- Disclosure of contractor labour management plans
- Community awareness sessions on SEA/GBV reporting
- Integration of labour grievances into the GRM
- Engagement with NEC Agriculture and district labour officers

These actions support AfDB OS5, OS4 and SECAP 5.

3.8 Temporary Land Disturbance, Crop Loss and Localised Displacement

Across all provinces, construction works may temporarily affect:

- Gardens
- Grazing areas

- Access roads
- Footpaths
- Irrigated plots
- Informal markets

Affected households must be engaged to understand:

- Scope of works
- Temporary land use requirements
- Agreement mechanisms
- Restitution after works

AfDB OS5 requires transparent, well-documented consultation and compensation processes.

3.9 Cultural Heritage and Community Values

The districts of interest are targeting existing irrigation schemes therefore, there are no anticipated cultural heritage risks, similar to sacred groves, ancestral trees, shrines and burial areas that may be affected by construction works.

Engagement with traditional leaders must:

- Confirm presence or absence of cultural sites
- Support implementation of chance finds procedures
- Protect intangible cultural values
- Inform the community of excavation plans

This aligns with OS1 and SECAP 1 requirements.

3.10 Cumulative Impacts Across Provinces

Although each province has scheme-specific concerns, several cumulative risks exist across the entire RACP landscape:

- Increased pressure on catchments feeding multiple schemes
- Combined rise in agrochemical use
- Traffic pressure from construction across multiple districts
- Increased demand for extension services
- Impacts on wetlands and river systems shared across districts
- Competition for labour between schemes under simultaneous rehabilitation

District and provincial consultations must therefore address bulk issues such as:

- Catchment-level restoration planning
- Provincial water allocation strategies
- Harmonised monitoring and enforcement
- Joint environmental stewardship programmes

PDCs, DDCs, ZINWA catchment councils and EMA provincial offices must lead these engagements.

A summary of RACP risks requiring engagement are listed in Table 44.

Table 44: Summary of RACP Risks Requiring Engagement

Risk Category	Applies In All Provinces?	Scheme/District/Province Level Engagement Required	Key Actors
Water allocation & conflicts	Yes	All 3 levels	ZINWA, IMCs, AGRITEX
Catchment degradation & siltation	Yes	District & province	EMA, RDCs, communities
Infrastructure hazards	Yes	Scheme & district	Irrigation Dept, contractors
Health, safety & WASH	Yes	All 3 levels	Health offices, contractors
Pesticide and chemical risks	Yes	Scheme & district	AGRITEX, health offices
Gender, youth & equity	Yes	All 3 levels	IMCs, women/youth groups
Labour rights, SEA/GBV	Yes	Scheme & district	Contractors, LMP focal persons
Land disturbance	Yes	Scheme	RDC, traditional leaders
Cultural heritage	Yes (location-specific)	Scheme & district	Traditional leadership
Cumulative catchment impacts	Yes	District & province	PDC, ZINWA, EMA

4. STAKEHOLDER IDENTIFICATION AND CATEGORISATION

Stakeholder identification for the RACP is a continuous, iterative process that recognises the diverse actors involved in irrigation management, agricultural productivity, natural resources governance and community development across the five targeted provinces. The engagement pathways reflect the complexity of rural agricultural systems in Zimbabwe and the interlinked roles of community organisations, technical agencies, customary structures, local government and national authorities. Chapter 4, therefore provides a detailed mapping and categorisation of stakeholders, clarifying their interests, influence, expectations and responsibilities in relation to RACP.

Because irrigation schemes operate within social, environmental and governance ecosystems, meaningful participation requires recognising stakeholders at **s**cheme, ward, district, provincial and national level. Consultations conducted across RACP provinces, confirm that stakeholder dynamics are similar across schemes, with minor variations relating to localised institutions or provincial arrangements. For this reason, the SEP adopts a unified stakeholder architecture applicable to all five provinces, while allowing scheme-by-scheme adaptation during field implementation.

4.1 Stakeholder Identification Strategy

Stakeholders were identified using a structured approach based on:

- Preliminary scoping under the ESMP processes
- Field consultations held with farmers, IMCs and traditional leaders

- District-level technical and administrative stakeholder interviews
- Provincial-level engagements with sectoral ministries
- Analysis of institutional mandates and legal requirements
- Review of responsibilities under AfDB ISS OS10 and IFAD SECAP 1

This identification method ensures that all individuals, groups and institutions who may be impacted by, benefit from, influence or have interests related to the project's outcomes are included.

The process follows four principles:

Inclusivity

All affected households, including women, youth, vulnerable groups and people with disabilities, are recognised as primary stakeholders.

Representation

Stakeholders are mapped along existing governance structures such as IMCs, WUAs, AGRITEX, traditional leadership, DDC and RDCs, ensuring representation at appropriate levels.

Contextualisation

Stakeholder lists reflect similarities across provinces but remain sufficiently adaptable to incorporate district-specific actors, for example, wildlife authorities in Matabeleland North or mining-affected communities in Midlands West.

Dynamic Updating

Stakeholder identification is not static; new players such as contractors, private input suppliers or emerging value-chain actors are continuously added as the project evolves.

4.2 Stakeholder Categorisation

Stakeholders fall into **three broad categories**, each requiring different engagement strategies.

4.2.1 Primary Stakeholders (Directly Affected Persons)

These are individuals and groups whose lives, livelihoods, land, water access, health or safety are directly affected by the rehabilitation and operation of irrigation schemes.

They include:

- **Irrigators and plot holders** in every scheme
- **Non-plot farmers** relying on the same water resource
- **Women farmers** engaged in horticulture, marketing and household food production
- **Youth involved in field operations, maintenance and local labour markets**
- **Elderly farmers** affected by physical demands of irrigation system changes
- **Vulnerable households** including the chronically ill, widows, child-headed families or persons with disabilities
- **Downstream and upstream communities** affected by abstraction or construction

Directly affected populations vary by scheme size, but all are considered principal stakeholders under AfDB OS10 and IFAD SECAP 1.

4.2.2 Secondary Stakeholders (Implementing and Supporting Agencies)

These institutions influence project implementation, resource allocation, technical guidance or compliance monitoring.

They include:

- **IMCs and Water User Associations (WUAs)**: primary governance and first-tier conflict resolution structures
- **AGRITEX extension officers at ward, district and provincial levels**, responsible for farmer training, PMP implementation and monitoring
- **Other District Officers** under MLAFWRD
- **District Development Coordinator (DDC)**: responsible for coordinating multi-sectoral district governance
- **Rural District Councils (RDCs)**: planning authorities responsible for development approvals, land use oversight and local environment governance
- **ZINWA catchment and sub-catchment councils**, managing water permits and abstraction allocations
- **EMA provincial and district officers**, overseeing environmental compliance and ecosystem protection
- **Provincial Departments of AGRITEX, Irrigation, Mechanisation and SACP/RACP Coordination Units**
- **National PMU**, responsible for oversight, financial safeguards, national planning and reporting to AfDB and IFAD

These actors shape the project's technical and compliance environment and must be engaged systematically.

4.2.3 External Stakeholders (Partners, Private Sector, Civil Society)

These actors are not directly affected but play important roles in influencing project success, environmental sustainability, value chain performance or community welfare.

They include:

Local input suppliers (seed, fertiliser, agrochemical dealers)

Private sector buyers and off-takers

NGOs and development partners working in agriculture, climate change, GBV, livelihoods or conservation

Community-based organisations, including women's cooperatives and savings clubs

Financial institutions offering microfinance, revolving funds or matching grants

Local contractors engaged in construction activities

Media outlets (for public disclosure and awareness)

These actors expand project opportunities and enhance sustainability if effectively involved.

4.3 Stakeholder Influence and Interest Analysis

Stakeholders differ in the level of power they hold and the degree to which they are affected. The influence–interest relationship determines engagement intensity as presented in below.

Matrix of Influence vs Interest

Stakeholder Group	Interest in RACP	Influence on Project	Required Engagement Approach
IMCs/WUAs	Very high	High	Continuous engagement; scheme-based decision forums
Irrigators & plot holders	Very high	Medium	Regular meetings, participatory planning
Women groups	Very high	Medium–low	Dedicated consultations; gender-sensitive facilitation
Youth groups	High	Medium–low	Tailored youth dialogues; skill-focused engagement
Traditional leaders	Medium	High	Early involvement; cultural guidance
AGRITEX officers	High	High	Technical coordination and training
ZINWA	High	High	Structured water allocation consultations
District agriculture, irrigation & mechanisation officers	High	High	Joint planning and monitoring
RDCs	Medium	High	Local planning approval and oversight
EMA	Medium	High	Environmental compliance and community training
Contractors	Medium	High	Mandatory briefings, OHS meetings, GRM orientation
NGOs/private sector	Medium–low	Medium	Partnership-based engagement

Scheme-based governance structures (IMCs and plot holders) hold high interest but moderate influence, whereas provincial and district authorities have high influence but moderate direct interest. Thus, stakeholder engagement must bridge these asymmetries to ensure effective participation.

4.4 Vulnerable Groups Assessment

IFAD SECAP 1 and AfDB OS10 require targeted engagement of vulnerable groups to avoid exclusion. Across RACP provinces, vulnerability profiles are consistent and include:

Women-headed households, who frequently lack institutional voice

Youth with limited access to resources or decision-making bodies

Persons with disabilities, facing mobility and inclusion challenges

Elderly irrigators, often unable to operate heavy irrigation equipment

Households affected by chronic illness or HIV/AIDS

Widows with limited labour resources

Vulnerable persons may require:

Adjusted meeting times

Tailored communication methods

Priority participation in training

Dedicated grievance pathways

Non-technical climate risk and water-use explanations

These considerations are integrated into Chapters 5 and 7 of the SEP.

4.5 Stakeholder Validation and Updating

Stakeholder lists will continue to be refined during:

District inception meetings

Scheme-level verification exercises led by IMCs and AGRITEX

Provincial harmonisation meetings

Contractor mobilisation activities

Water permitting discussions with ZINWA

Each scheme will maintain a Stakeholder Register (structured as that presented below), updated quarterly and coordinated by the District SACP/RACP Agricultural Officer, with oversight from the Provincial PMU.

Summary Table of Stakeholders Across All RACP Provinces

Level	Stakeholder	Role/Interest
Scheme Level	Irrigators, IMCs, WUAs	Water allocation, scheme governance, operation and maintenance
	Women groups & youth groups	Production, labour, decision-making, livelihood opportunities
	Traditional leaders	Legitimacy, land governance, social cohesion
Ward Level	Village heads, local committees	Mobilisation, conflict management, cultural issues
District Level	AGRITEX, Irrigation, Mechanisation, District SACP Officer	Technical support, monitoring, extension, IPM training
	DDC	Multi-sectoral coordination and oversight
	RDC	Local approval, land use regulation, environmental governance
	EMA & ZINWA	Environmental compliance and water resource management
	District Health Offices	Public health, WASH, construction health oversight
Provincial Level	Provincial AGRITEX, Irrigation, Mechanisation, PDC	Provincial planning, reporting, environmental and social oversight
	Provincial SACP/RACP Coordination Unit	Programme alignment and quality control
National Level	PMU, MLAFWRD	Policy oversight, financial management, donor compliance
External	NGOs, private sector, input suppliers, media	Partnerships, technical support, value chain integration

5. STAKEHOLDER ENGAGEMENT STRATEGIES

Stakeholder engagement under the Resilience Agriculture Cluster Project (RACP) must be continuous, adaptive, inclusive and responsive to evolving scheme-level, district and provincial realities. The strategies in this chapter are designed to ensure that all stakeholders, especially the most vulnerable are informed, consulted, involved in decision-making, and empowered to participate in the monitoring and grievance processes throughout the project lifecycle. These strategies apply uniformly across all

five RACP provinces, with flexibility for scheme-level adaptation based on local culture, institutional maturity and community dynamics.

The engagement strategies follow the principles outlined in AfDB OS10 on Stakeholder Engagement and Information Disclosure and IFAD SECAP 1 & 10, ensuring that consultations are meaningful, transparent and accessible, and that feedback is systematically incorporated into project design and implementation.

5.1 Information Dissemination

Information dissemination forms the foundation of effective stakeholder engagement. Communities and institutions must receive accurate, timely and understandable information on project activities, timelines, risks, rights, responsibilities and grievance processes. This is particularly important in irrigation rehabilitation programmes where water availability, construction schedules, land use changes, and pesticide use have direct impacts on livelihoods.

Information must therefore be:

Clear and non-technical, avoiding jargon where possible

Delivered in local languages (Shona or Ndebele and other languages depending on province)

Shared through multiple channels to reach diverse groups

Provided in advance of decisions, construction works or environmental impacts

For RACP, primary information dissemination channels include:

Community meetings facilitated by AGRITEX or IMCs

District-level technical briefings involving MLAFWARD officers and the District SACP Officer

Public notices displayed at ward centres, irrigation scheme entrances and market facilities

Local radio broadcasts for provincial-level announcements

Engagement with local councillors, village heads and traditional leadership structures

WhatsApp groups managed by IMCs or AGRITEX where appropriate

Dissemination through local churches, savings groups, youth clusters and women’s associations

Information dissemination must also integrate awareness from the GRM Plan, such as where grievances can be submitted, timelines for resolution and SEA/GBV referral pathways, as well as guidance from the Pest Management Plan, particularly around pesticide risks, safe handling and emergency reporting.

5.2 Stakeholder Consultations

Consultations are the core of engagement, providing platforms for stakeholders to express concerns, propose solutions, understand alternatives and participate meaningfully in project decisions. For irrigation rehabilitation, consultations need to be iterative because design choices, construction methods, water distribution rules and O&M structures require community acceptance to be effective.

Stakeholder consultations under RACP take place at multiple levels:

Scheme-Level Consultations

These consultations are the most important, as they engage the primary beneficiaries, the irrigators, IMCs, women farmers, youth, traders and downstream users. Topics typically include:

Scheme design options and layout

Water abstraction points and pumping capacities

Night storage dam configuration and canal alignments

Catchment restoration priorities

O&M responsibilities

Labour requirements and opportunities

Restrictions during construction

Pesticide management and IPM training

Emergency procedures and safety commitments

These meetings must be facilitated by AGRITEX, district irrigation engineers, IMCs and the District SACP/RACP Agricultural Officer.

District-Level Consultations

District-level consultations bring together technical departments and administrative authorities who ensure compliance and coordinate cross-sectoral actions. These engagements include:

District Development Coordinator (DDC)

RDC planning and environmental officers

AGRITEX district teams

Irrigation and Mechanisation officers

EMA district officers

ZINWA catchment representatives

District health offices and EHTs

Matters discussed at this level often relate to:

Water permitting

Environmental compliance

Contractor monitoring

Land-use and access

Catchment-wide management

Labour standards and SEA/GBV prevention

Provincial-Level Consultations

At the provincial level, the focus shifts towards:

Harmonisation of activities across multiple schemes

Provincial water strategies

Shared catchment concerns

Monitoring and oversight

Provincial reporting to PMU

Integrating RACP activities with other development programmes

Provincial consultations must involve Provincial AGRITEX, Irrigation, Mechanisation, EMA, ZINWA and Provincial Development Coordinator (PDC) representatives.

National-Level Consultations

These consultations are led by the PMU and MLAFWRD through:

Policy engagement

Donor reporting

Safeguards compliance

Consolidation of grievances and lessons learned

Alignment with national climate, water and agricultural strategies

National consultations ensure consistency between provinces and capture cross-cutting lessons.

5.3 Capacity Building and Training

Capacity building is a fundamental engagement strategy because the success of irrigation rehabilitation, IPM adoption, scheme governance and environmental management depends on stakeholders' technical competence and institutional capacity.

Training sessions must be practical, hands-on, and tailored to beneficiary realities, with special attention to women, youth and vulnerable groups.

Training priorities include:

For Communities and IMCs

Roles and responsibilities of IMCs and WUAs

Water scheduling, conflict minimisation and equitable distribution

Basic operation and maintenance of infrastructure

Understanding irrigation layouts and command areas

Safe pesticide handling, storage, application and disposal (PMP requirement)

Emergency procedures and reporting

For AGRITEX and District Technical Staff

Enhanced facilitation skills

Environmental and social risk communication

Monitoring and compliance reporting

Gender-sensitive engagement

Climate-smart agriculture and IPM advisory services

For Contractors

Community entry protocols

Labour rights, worker codes of conduct and SEA/GBV prevention

Occupational health and safety

GRM orientation and grievance escalation

Training content must be updated periodically and delivered collaboratively by AGRITEX, EMA, ZINWA, RDCs and the PMU.

5.4 Collaborative Partnerships

RACP implementation benefits from strategic partnerships that strengthen capacity, extend knowledge networks and enhance sustainability. Partnerships should involve:

NGOs providing community facilitation, gender mainstreaming, youth mobilisation or market access development

Private sector actors offering value-chain linkages, processing opportunities or supply chain investments

Environmental institutions such as EMA and Forestry Commission supporting ecosystem restoration

ZINWA for catchment management planning

Health institutions for pesticide poisoning prevention, WASH, and contractor health oversight

Financial institutions providing microcredit or revolving fund services

Such partnerships deepen community engagement, promote co-ownership of interventions and build long-term resilience.

5.5 Participatory Monitoring and Evaluation

Participatory M&E is essential for ensuring that stakeholders remain part of the oversight, quality assurance and learning cycle. AfDB OS1 and IFAD SECAP promote community involvement in monitoring because it builds trust, enhances compliance, and supports adaptive management.

Participatory monitoring will involve:

Community monitoring committees composed of IMCs, women, youth and vulnerable group representatives

Joint field inspections with AGRITEX, Irrigation, RDC and EMA

Monitoring of water flows, abstraction rates and catchment restoration

Feedback sessions during district technical review meetings

Tracking safe pesticide use practices under the PMP

Review of GRM cases and resolutions during scheme meetings

Community-generated data will support adaptive decision-making in the PMU.

5.6 Grievance Redress Mechanism (GRM) Integration

While full procedural details are addressed in the standalone GRM Plan, the SEP emphasises that stakeholder engagement must:

Raise awareness of the GRM

Clarify reporting channels

Promote SEA/GBV-safe reporting

Ensure confidentiality where required

Ensure accessibility to vulnerable groups

Reinforce trust that grievances will be heard and resolved

Engagement activities must dedicate time to explaining:

How to file a complaint

Who receives the complaint (IMC GRM focal persons, AGRITEX, ward leadership, District GRM Committee)

Expected timelines

Appeals steps

Special handling of labour disputes

Survivor-centred SEA/GBV mechanisms

Community awareness of the GRM is a mandatory requirement under AfDB OS10 and IFAD SECAP 10.

6. METHODS AND TOOLS FOR ENGAGEMENT

Stakeholder engagement within the RACP requires a deliberate, context-driven approach built upon Zimbabwe's established rural communication traditions, extension systems, customary leadership structures, and local governance arrangements. Because RACP is implemented across five provinces, each with unique social, cultural and agro-ecological conditions whilst having shared similarities, engagement tools must be adaptable, sensitive to community rhythms, and grounded in the day-to-day realities of smallholder farmers. At the same time, these tools must meet the rigorous expectations of the AfDBand the IFAD, which oversee project implementation through periodic missions, reviews and supervision visits.

The engagement methods described below reflect a synthesis of Zimbabwe's practical knowledge systems and the procedural expectations of international safeguards. The objective is to ensure that information flows effectively, decisions are participatory, concerns are heard and addressed, and technical content is communicated in a way that is accessible to the very farmers and community members whose livelihoods depend upon irrigation rehabilitation and agricultural resilience.

6.1 Foundations of the Engagement Approach

Engagement under RACP is anchored in five interlinked principles:

Accessibility

Engagement must reach irrigators, non-plot farmers, downstream users, women, youth and vulnerable groups regardless of literacy level, gender, mobility, or socio-economic constraints. This often means holding meetings in communal spaces, using visual aids, translating technical concepts, and scheduling discussions at times that do not clash with farming or caregiving responsibilities.

Respect for local governance structures

Traditional leaders, IMCs, WUAs, councillors and AGRITEX extension officers are central figures in rural governance. Engagement methods must operate through, not around, these structures. For example, a contractor cannot enter a community without first reporting to the village head or traditional leadership, even if the formal entry process is coordinated through the PMU.

Iterative Consultations

Engagement is not a single event. It must follow the rhythm of the project: from scoping to design, from construction to operation, and into the long-term sustainability phase. Iteration ensures that new concerns, seasonal changes, and shifting priorities are captured and addressed.

Two-way Dialogue

Engagement must allow communities to shape project outcomes, not merely receive information. Dialogue helps uncover local knowledge on water flows, soil behaviour, cultural considerations, and social vulnerabilities that no technical report alone can capture.

Oversight and Accountability

AfDB and IFAD provide an additional layer of oversight, often reviewing engagement processes during missions, verifying documentation, interacting directly with communities, and ensuring that local voices are reflected in project decisions and corrective actions.

These foundational principles shape every method and tool used under RACP.

6.2 Scheme-Level Engagement Tools: The Heart of RACP Communication

Most meaningful engagement happens at scheme level because that is where irrigation infrastructure exists, where fields are worked, where water is distributed and where community relationships shape governance outcomes. For this reason, scheme-level methods are the most nuanced and human-centred.

6.2.1 Community Meetings (Dare / Public Assemblies)

These meetings are held at the scheme centre, under a tree, by the canal, or within a school or church depending on local norms. They are essential for:

Sharing project updates

Introducing contractors

Reviewing ESMP findings

Discussing water distribution concerns

Presenting designs and layout maps

Introducing labour schedules and OHS expectations

Communicating grievance channels

Because such meetings are modelled around long-standing community communication traditions, community members often feel more comfortable expressing concerns.

During AfDB and IFAD supervision missions, community assemblies are a primary interface for donors to validate whether engagement has been meaningful.

6.2.2 IMC and WUA Technical Sessions

IMCs and WUAs are the custodians of scheme governance. They are responsible for:

Water scheduling

Enforcement of rules

Conflict management

Maintenance planning

Therefore, IMC technical sessions are more detailed, often involving:

Review of pump efficiency

Canal alignment considerations

Water duty calculations

Cross-checking O&M responsibilities

Recording grievances received at IMC level

These sessions often include AGRITEX officers, the District Irrigation Officer, and occasionally EMA or ZINWA representatives for clarifications.

Minutes from these sessions are frequently reviewed during donor missions as part of evidence of governance functionality.

6.2.3 Gender- and Youth-Specific Focus Group Discussions (FGD)

FGDs are crucial for understanding differentiated experiences and concerns:

Women's FGDs explore:

Access challenges (distance to plots, heavy equipment)

Household workloads that influence meeting attendance

Exposure to pesticides during spraying

Safety concerns when working early or late

Representation gaps in IMCs

Youth FGDs explore:

Desire for training in irrigation technology

Inclusion in labour opportunities

Barriers to leadership roles

Interest in climate-smart innovations and value chains

FGDs often uncover deeper concerns that may not emerge in large meetings. IFAD in particular places strong emphasis on these discussions during missions.

6.2.4 Participatory Field Walks and Joint Inspections

These practical tools involve walking with community members through:

Dam embankments

Canals and drainages

Pump houses

Eroded gullies

Areas needing catchment protection

This method:

Builds shared understanding of technical issues

Helps demystify engineering concepts

Allows farmers to show real impacts or risks

Prevents misunderstandings about design decisions

AfDB engineering teams often participate in joint inspections during field missions, validating the physical realities of scheme conditions.

6.2.5 Demonstration Plots and Farmer Field Schools

Used extensively by AGRITEX to demonstrate best practices, these tools:

Demonstrate safe pesticide use (aligned to the PMP)

Showcase improved seed varieties

Demonstrate mulching, drip systems or moisture conservation

Support climate-smart agriculture awareness

Encourage peer-to-peer learning

Farmer Field Schools (FFS) create a space where learning is participatory, experiential, and farmer-led.

6.3 District-Level Engagement Tools: Bridging Technical Oversight and Local Realities

At district level, engagement tools focus on coordination, compliance, and technical integrity.

6.3.1 District Technical Working Groups (DTWGs)

These groups meet monthly or bi-monthly, involving:

AGRITEX district leadership

District Irrigation and Mechanisation Officers

EMA district officers

RDC planning officers

ZINWA sub-catchment representatives

District Health Office

District SACP/RACP Officer

Tools used during DTWGs include:

ESMP progress matrices

Safeguards monitoring templates

Water abstraction analysis reports

Contractor compliance dashboards

Grievance summaries compiled through the GRM

DTWGs are also the venue where AfDB and IFAD mission teams often sit with stakeholders to review technical and safeguards performance.

6.3.2 Written Circulars, Technical Memoranda and Formal Notices

Formal communication tools are vital for:

- Approving or modifying abstraction rights
- Notifying communities of environmental regulations
- Enforcing labour standards
- Communicating contractor obligations
- Documenting decisions taken in district meetings

These tools reinforce institutional accountability and are part of the documentary evidence reviewed during donor missions.

6.3.3 District Multi-Stakeholder Dialogues

These sessions bring together:

- Development partners
- NGOs
- Farmer unions
- Private sector input dealers
- Off-takers
- Community representatives

They provide a space for discussing cross-cutting issues such as:

- Market access

- Value chain opportunities
- Catchment-wide degradation
- Coordination of donor efforts

These dialogues reflect IFAD's emphasis on inclusive rural transformation.

6.4 Provincial-Level Engagement Tools: Harmonising Scheme Realities with Provincial Strategies

6.4.1 Provincial Planning and Review Meetings

Chaired by the Provincial Development Coordinator, these meetings use tools like:

- Provincial performance dashboards
- Aggregated grievance data
- Irrigation rehabilitation progress reports
- Catchment restoration maps
- Financial and procurement status updates

Provincial meetings allow cross-scheme comparisons, identification of bottlenecks, and harmonisation of environmental and social priorities.

6.4.2 Interdepartmental Technical Briefings

These briefings convene:

- Provincial AGRITEX
- Provincial Irrigation and Mechanisation
- EMA provincial staff
- ZINWA
- Provincial RACP/SACP coordinators

Tools include:

- Hydrological and meteorological summaries
- Maps showing dam capacities and canal networks
- Land degradation maps
- O&M capacity assessments

These briefings are important touchpoints before donor supervision missions.

6.5 National-Level Engagement Tools: Strategic Direction, Compliance and Oversight

6.5.1 National PMU Workshops and Safeguards Clinics

Workshops convened by MLAFWRD and the national PMU focus on:

- Safeguards training (AfDB ISS and IFAD SECAP)
- Consolidated provincial reporting
- GRM effectiveness reviews
- Lessons learned across provinces
- National climate and water policy alignment

Tools include:

- Safeguards manuals
- Consolidated monitoring dashboards
- Stakeholder engagement logs
- Corrective action trackers

6.5.2 Donor Supervision Missions and Backstopping Visits

IFAD and AfDB send multidisciplinary teams to:

- Verify stakeholder engagement processes
- Meet communities and IMCs
- Assess GRM functioning
- Review ESMP implementation
- Validate environmental and social reporting
- Identify emerging risks

These missions use:

- Mission aide-mémoire
- Field notes
- Community feedback records
- Photographic evidence
- Discussions with district and provincial teams

Their involvement strengthens transparency, builds trust among communities, and provides external accountability.

6.6 Tools for Information Access and Public Communication

Engagement relies on diverse tools such as:

- Printed flyers and leaflets in local languages
- Visual posters on pesticide safety, water rules, labour rights
- Scheme notice boards
- SMS alerts and WhatsApp groups where network allows
- Community radio announcements
- Local church and school noticeboards
- Summary brochures of GRM pathways

These tools reinforce verbal communication and provide communities with lasting references.

6.7 Tools for Documentation, Monitoring and Evidence-Based Engagement

Robust documentation is critical for accountability and donor compliance. Tools include:

- Attendance registers for all meetings

- Minutes with clear action points
- Signed resolutions from IMCs and District TWGs
- Grievance logs and resolution certificates from the GRM
- Pictorial records of meetings, inspections and demonstrations
- Maps and diagrams annotated during community sessions
- Periodic reporting templates used by AGRITEX and PMU

These tools become the documentary backbone of supervision missions by AfDB and IFAD.

6.8 Tools for Engaging Vulnerable Groups

Specific tools ensure that vulnerable groups are fully included:

- Home visits for the elderly or disabled
- Small cluster discussions for widows and child-headed households
- Women-led facilitation by female AGRITEX officers
- Youth-friendly formats such as practical demonstrations, competitions or role-based trainings
- Simplified visual materials for low-literacy groups
- Confidential feedback boxes linked to the GRM

These tools uphold the principle that **no stakeholder is too marginalised, too busy, too shy or too remote to participate meaningfully in RACP**.

7. TIMELINE AND FREQUENCY OF ENGAGEMENT

Stakeholder engagement within the RACP follows the natural rhythm of irrigation development, agricultural seasons, community availability and the project's safeguards obligations. Engagement does not happen once and it does not follow a rigid schedule. Instead, it is woven into the day to day functioning of irrigation schemes and provincial agricultural governance. This means that engagement moments must be planned in advance, discussed openly during coordination meetings and adjusted whenever project dynamics shift.

The purpose of setting a clear timeline is to ensure that project information moves from national level to scheme level in a coordinated manner, that communities receive updates before change occurs on the ground and that each phase of implementation carries opportunities for meaningful dialogue between farmers, extension services, local institutions and the project implementers.

Stakeholder engagement also follows a layered rhythm which reflects the structure of rural governance. Scheme level farmers and IMCs require frequent and practical engagements because their lives are directly affected by construction, water availability, crop cycles and market opportunities. District level stakeholders guide the technical and administrative oversight therefore their engagement occurs regularly but with more structured intervals. Provincial and national engagements take a more strategic focus and therefore follow quarterly and annual cycles.

AfDB and IFAD do not participate in everyday meetings but they do join through supervision missions and backstopping visits at specific points of the year. These interactions serve to verify that engagement is functioning and that communities are genuinely taking part in project decisions. Their involvement creates an accountability loop from village level to national decision making.

The following timeline outlines how the engagement process unfolds across the project cycle.

7.1 Engagement During Planning and Design

The planning and design stage is one of the most important periods for community participation because design choices on canals, pump sizes, storage dams, command areas and road alignments have long term implications for scheme performance.

Engagement activities during this phase therefore include:

- Introductory consultations at scheme level to explain the project, expected benefits, possible disruptions and the responsibilities of different actors
- Detailed design discussions where IMCs, women and youth groups and vulnerable households provide input on scheme layout and identify areas that require protection
- Catchment and water availability consultations involving ZINWA, EMA and AGRITEX to ensure that design proposals align with water permits and environmental obligations
- Ward meetings led by traditional leadership and AGRITEX to verify stakeholder lists and ensure that no group is excluded
- District technical meetings where Irrigation, Mechanisation, EMA, RDC and AGRITEX teams review engineering proposals
- Initial grievance awareness sessions led by IMC GRM focal persons to familiarise communities with reporting channels
- Farmer consultations on pest management expectations which directly feed into the PMP or IPMP training calendar

These engagements must occur **before any contractor is mobilised** and should be spaced over two to three months to allow communities to process information, seek clarification and offer feedback.

7.2 Engagement During Construction

Construction introduces noise, movement of heavy equipment, possible land disturbance and temporary interruptions to irrigation activities. For this reason, construction demands more frequent and structured engagement moments.

Key engagement events during construction include:

Weekly or fortnightly scheme meetings facilitated by AGRITEX and the IMC to update farmers on progress, expected disruptions and safety precautions

Monthly District Technical Working Group sessions where construction progress, safeguards compliance and grievances are reviewed by technical departments

Contractor community entry and regular interface meetings, particularly those addressing labour practices, safety rules and work schedules

Safety briefings delivered by district officers on avoiding hazards near excavated areas, trenches, pumping units or transformer zones

Consultation moments with women and vulnerable groups to identify any safety concerns or barriers created by construction movement

District health and EMA joint outreach sessions whenever land clearing, waste disposal or construction emissions pose public health concerns

Activation of the GRM response mechanism to deal with construction related complaints in real time

Construction related engagement is most effective when information is provided before work begins and when IMCs receive weekly updates that they can pass on to plot holders.

7.3 Engagement During Operation and Handover

Once rehabilitation works are completed, engagement shifts toward preparing farmers and local institutions for operation and maintenance.

Engagement activities at this stage include:

Handover meetings where contractors, district engineers and IMCs review the infrastructure and confirm readiness for use

O and M training sessions for IMCs, WUAs and farmers covering water scheduling, pump operation, routine maintenance and emergency response

PMP or IPMP refresher trainings focused on safe pesticide handling, chemical storage and monitoring of agrochemical risks during production

Monthly scheme governance meetings chaired by IMCs to address water distribution, fee collection, conflict management and maintenance planning

Community feedback meetings facilitated by AGRITEX or the District SACP Officer to identify lessons learned and adjust practices

Ongoing grievance handling sessions where unresolved issues are brought forward to district and provincial committees

Provincial review sessions to assess performance across schemes, examine cumulative impacts and refine support interventions

During operation, the frequency of engagement gradually decreases but continues to be consistent because irrigation requires continual management, coordination and problem solving.

7.4 Engagement During Monitoring, Evaluation and Learning

Monitoring and evaluation rely on periodic engagement moments that allow stakeholders to measure progress, understand challenges and refine approaches.

Engagements during this phase include:

Quarterly district reviews involving AGRITEX, Irrigation, EMA, RDC, ZINWA and scheme representatives

Annual provincial performance reviews where issues such as catchment health, water abstraction patterns, scheme governance, gender inclusion and youth participation are examined

Participatory monitoring visits where scheme committees walk the infrastructure with AGRITEX and district technical staff to identify emerging issues

Annual missions by AfDB and IFAD, which include consultations with IMCs, community leadership, district officers and provincial staff

Stakeholder validation workshops at the national level where progress reports, grievance trends and compliance findings are discussed

These engagements ensure that learning is continuous and that the project adapts to field realities.

The engagement structure works best when implemented as highlighted in Table 45.

Table 45: Engagement Frequency

Project Stage	Engagement Frequency	Primary Actors Involved
Planning and design	Weekly to monthly	IMCs, AGRITEX, Irrigation, ZINWA, EMA, RDC, PDC, PMU
Construction	Weekly for scheme meetings, monthly for district reviews	IMCs, contractors, AGRITEX, EMA, Irrigation, Mechanisation, DDC
Early operation	Bi weekly scheme meetings, quarterly district and provincial reviews	IMCs, AGRITEX, District agriculture teams, provincial departments
Full operation	Monthly scheme meetings, quarterly district oversight, annual provincial and national reviews	IMCs, AGRITEX, district technical departments, PMU
Monitoring and evaluation	Quarterly and annual	PMU, provincial officers, district teams, AfDB and IFAD missions

8. MONITORING AND EVALUATION

Monitoring and evaluation within the Stakeholder Engagement Plan is not an administrative exercise. It is a practical and continuous process that helps ensure that communities are informed, that meaningful participation is taking place, and that concerns raised at scheme, district, provincial and national levels are translated into corrective actions. In a complex project such as RACP, which operates across five provinces and within a mixture of irrigation schemes at different levels of readiness, the M and E system must remain responsive, community centred and firmly anchored in the existing agricultural extension and environmental governance structures.

This chapter outlines how monitoring will occur, who is responsible, how information will be collected and how learnings will feed into improvements in the engagement process. It also clarifies the role of AfDB and IFAD in providing external oversight and validation through supervision missions and backstopping visits.

8.1 Purpose of Monitoring and Evaluation in the SEP

Monitoring and evaluation serve several important purposes.

First, it helps verify that planned engagement activities actually occur and that they are not rushed, skipped or replaced with informal communication that leaves out key groups.

Second, it ensures that the quality of engagement aligns with the standards expected under AfDB ISS OS10 and IFAD SECAP 10.

Third, it creates a transparent system where communities can see how their feedback is being used to adjust project decisions.

Finally, it ensures that district and provincial authorities remain accountable for the engagement processes they coordinate.

Effective M and E therefore strengthens trust, reduces conflict, improves ownership and enhances the long term sustainability of irrigation rehabilitation.

8.2 Key Indicators for Monitoring Stakeholder Engagement

Indicators must be practical, easy to track and meaningful for all stakeholders involved. The monitoring system focuses on four broad categories.

8.2.1 Participation Indicators

These indicators track who attends meetings and who is left out. They include:

Number of community meetings held at scheme level

Attendance rates disaggregated by women, youth and vulnerable persons

Number of IMC meetings with written minutes and action points

Number of district technical meetings and participation of AGRITEX, Irrigation, EMA, RDC and ZINWA

Number of FGDs held with women and youth

Number of engagement sessions held during construction and operation

These indicators help determine whether engagement is inclusive and consistent.

8.2.2 Information Flow Indicators

These track whether information reaches communities in time and in a clear manner. They include:

Number of information materials distributed to farmers

Frequency of updates shared through IMCs and AGRITEX

Time taken to communicate changes in construction schedules

Number of notices displayed on scheme notice boards

Evidence that information was provided before decisions were made

These indicators help assess transparency and the reliability of communication channels.

8.2.3 Grievance Management Indicators

These indicators track functionality of the GRM. They include:

Number of grievances received at scheme, district and provincial level

Type of grievances raised and how quickly they were acknowledged

Proportion of grievances resolved within agreed timelines

Number of referrals made for sensitive cases, such as SEA or GBV complaints

Whether grievance outcomes were communicated back to communities

Quality of grievance documentation

Trends showing recurring issues that require systemic interventions

Grievance indicators show whether communities trust the process and whether the project is responsive.

8.2.4 Behavioural and Performance Indicators

Monitoring must also look at whether engagement changes behaviour. These indicators include:

Increase in women and youth participation in IMCs and scheme activities

Improved adherence to safe pesticide use through PMP training

Reduced conflict related to water distribution

Improved compliance with environmental requirements

Improved coordination between district technical departments

Evidence of scheme committees taking initiative on O and M

These indicators show whether engagement activities are shaping decisions and practices.

8.3 Monitoring Responsibilities Across Stakeholder Levels

Monitoring is not the job of a single institution. It is shared across different levels of government and project management.

8.3.1 Scheme Level Monitoring

IMCs, AGRITEX officers and community focal persons are responsible for:

Keeping attendance registers

Recording discussions and action points

Submitting monthly reports to district level

Tracking grievances and providing updates

Conducting joint scheme inspections together with district officers

Ensuring vulnerable groups are included in meetings

Scheme level monitoring provides the most current picture of engagement.

8.3.2 District Level Monitoring

District AGRITEX, Irrigation, Mechanisation, EMA, RDC and ZINWA officers are responsible for:

Compiling scheme level reports

Reviewing quality of engagement

Checking whether construction related engagement is occurring as planned

Monitoring grievance resolution and response times

Reporting risks to provincial and national levels

Conducting quarterly district reviews with scheme representatives

District officers ensure that engagement is technically accurate and administratively sound.

8.3.3 Provincial Level Monitoring

Provincial departments perform oversight functions and help identify emerging patterns across multiple districts. Their role includes:

Reviewing aggregated monitoring data

Verifying whether all districts are following SEP requirements

Conducting provincial performance reviews

Supporting districts where engagement has weakened

Preparing provincial inputs for national and donor reporting

Provincial oversight ensures uniformity in M and E across all five provinces.

8.3.4 National Level Monitoring

The PMU carries the final responsibility for:

Consolidating all engagement data from provinces

Producing quarterly and annual engagement reports

Ensuring compliance with AfDB and IFAD safeguards

Updating the SEP where engagement patterns show the need for improvement

Sharing feedback to provinces based on donor mission findings

National monitoring confirms whether engagement meets the expectations of financiers and government.

8.3.5 Donor Oversight

AfDB and IFAD conduct supervision missions at least once a year and sometimes twice depending on project dynamics. During these missions they:

Review monitoring reports and grievance logs

Visit selected irrigation schemes

Hold direct consultations with IMCs and farmers

Validate inclusion of women, youth and vulnerable groups

Verify compliance with OS10 and SECAP 10

Identify gaps that require immediate or long term corrective measures

Their oversight strengthens accountability and provides independent assessment of engagement quality.

8.4 Tools for Monitoring Engagement

Monitoring tools must be simple but capable of capturing information accurately. They include:

Attendance sheets with gender and age categories

IMC meeting minutes

District technical meeting minutes

Grievance logbooks and case files

Photographs of community meetings, training sessions and inspections

Monitoring checklists for district and provincial officers

Safeguards compliance templates used by PMU

Engagement summary forms after each major activity

Documentation of FGD outcomes

All tools must be kept at scheme, district and provincial offices for verification during provincial oversight or donor missions.

8.5 Reporting Arrangements

Reporting in the SEP follows a chain that mirrors the structure of agricultural extension and local governance.

Scheme Level Reporting

IMCs submit:

Monthly engagement summaries

Attendance registers

Community concerns

Notes on IPM and pesticide related issues

Updates on water distribution or maintenance discussions

These reports go to AGRITEX and the District SACP or RACP Officer.

District Level Reporting

District teams combine information from IMCs and produce:

Monthly district summaries

Quarterly engagement reports

Updated grievance dashboards

District level recommendations for technical improvements

These reports are sent to provincial departments and the PMU.

Provincial Reporting

Provincial coordination units prepare:

Quarterly provincial reports

Annual provincial stakeholder engagement reviews

Provincial summaries of grievance trends

Recommendations for national level action

These reports help the PMU understand cross regional patterns.

National Reporting

The PMU produces:

Consolidated quarterly and annual SEP implementation reports

Safeguards reports for AfDB and IFAD

Inputs for national agricultural and climate resilience planning

SEP updates based on performance results

These reports inform donors of engagement progress and areas needing support.

8.6 Learning and Adaptive Management

Monitoring alone does not improve engagement. What improves it is the ability to review evidence, discuss lessons with communities and technical departments, and then adjust approaches.

Learning moments occur through:

Quarterly district reviews

Annual provincial reviews

Mid-year and annual national reflection workshops

AfDB and IFAD supervision feedback sessions

Community assessment meetings following major construction phases

Sessions with women, youth and vulnerable groups to understand what works and what does not

Cross district learning exchanges where IMCs share experiences

Adaptive management ensures that the SEP remains alive, relevant and grounded in the lived realities of farmers and local institutions.

9. INFORMATION DISCLOSURE

Information disclosure within the RACP is not simply about making documents available. It is a deliberate and structured process that ensures communities, institutions and stakeholders at every level fully understand what the project is doing, why it is doing it, how it affects them and what rights and responsibilities they hold throughout implementation. Disclosure is therefore both a technical requirement and a relationship building process. When information flows clearly and consistently, conflict decreases, cooperation increases and communities feel respected and involved.

This chapter describes how information will be disclosed, to whom, at what stages and using which channels. It also clarifies the responsibilities at scheme, district, provincial and national levels, ensuring that disclosure is not left to chance but is integrated into normal project operations. The approach balances formal documentation with locally appropriate communication methods that respect language, culture and day to day realities.

9.1 Objectives of Information Disclosure

Effective disclosure seeks to:

Ensure that all stakeholders understand project goals, timelines, risks, benefits and responsibilities in a manner that is accessible and practical

Promote transparency, accountability and trust between communities, technical departments, contractors, PMU and financiers

Support informed participation in decision making during planning, construction and operation

Reduce misinformation and speculation by providing clear and timely updates

Strengthen compliance with AfDB ISS OS1 and OS10 and IFAD SECAP 1 and 2 guidelines

Ensure that farmers and vulnerable people can exercise their rights including the right to raise grievances through the GRM

Provide AfDB and IFAD with evidence that disclosure has reached the intended audience

Disclosure is therefore the backbone of genuine participation.

9.2 What Information Will Be Disclosed

Information that will be disclosed throughout the project includes but is not limited to:

The nature of the RACP, including objectives, financing, target provinces and broad implementation approach

Detailed scheme level rehabilitation plans, including proposed engineering works, changes in layout, pumping configurations and construction schedules

The Environmental and Social Management Plan and relevant safeguards information, clearly explained in non-technical language.

The Pest Management Plan and guidance on safe pesticide use

The GRM including entry points, responsible persons, timelines for resolution and escalation pathways

Contractor obligations including safety rules, labour requirements, worksite restrictions and community protection measures

Water allocation arrangements agreed with ZINWA and implications for farmers

Roles and responsibilities of IMCs, AGRITEX, district and provincial officers

Any issues raised during consultations and the responses provided

Updates on progress, delays, risks or changes to infrastructure designs

Findings from district and provincial reviews that are relevant to scheme performance

The core intention is to ensure that every farmer, regardless of literacy level or social position, has access to understandable and timely information.

9.3 When Information Will Be Disclosed

Disclosure must follow the project cycle so that information is provided before key decisions, before works begin and before risks materialise. The timing of disclosure is therefore anchored to three major phases.

9.3.1 Planning and Design Stage

During this stage, disclosure focuses on:

Introducing the project to the community

Explaining expected benefits and possible disruptions

Sharing preliminary engineering proposals

Presenting ESMP findings and water availability assessments

Confirming stakeholder lists and mapping vulnerable groups

Briefing communities on the GRM and the PMP

Disclosure during this stage must occur before any contractor mobilisation. This ensures informed consent and meaningful participation.

9.3.2 Construction Stage

During construction, disclosure becomes more frequent and detailed. It includes:

Weekly or fortnightly updates through IMC and AGRITEX channels

Notices on disruptions to water access or movement

Emergency updates when unexpected issues arise on site

Safety instructions and access restrictions

Updates on grievances submitted and actions taken

Clarification of contractor obligations especially when labour or safety concerns are raised

Disclosure must be immediate when risks to safety or livelihoods become evident.

9.3.3 Operation Stage

Once the scheme becomes operational, disclosure shifts towards:

O and M rules

Water schedules

Fee structures

Conflict resolution procedures

Updates from PMP training and monitoring

Annual reviews of scheme performance

Adjustments to rules or seasonal water allocation arrangements

Continual disclosure keeps communities informed long after construction has ended and supports long term sustainability.

9.4 How Information Will Be Disclosed

The method of disclosure must match the realities of rural communication. Communities rely on a mix of oral communication, written notices, traditional channels and radio. The approach uses multiple channels so that every person has a reasonable chance of receiving the information.

9.4.1 Community Meetings

These remain the primary form of disclosure. Information presented verbally allows farmers to ask questions and receive explanations in real time. Meetings may be facilitated by AGRITEX, IMCs or district officers depending on the topic.

9.4.2 Printed Materials

These include brochures, posters, leaflets and notices. They are useful for:

Displaying key safety instructions

Summarising project components

Showing GRM contact details

Explaining pesticide safety

Informing farmers of meeting dates

Printed materials must be displayed at scheme entrances, schools, clinics, ward centres and markets.

9.4.3 Notice Boards

Every scheme will have a central notice board managed by the IMC. This board will display:

Construction schedules

Meeting announcements

Water distribution rules

GRM information

Public health notices

Notice boards provide a permanent reference point.

9.4.4 Radio Announcements

Where needed, provincial and district offices may use community radio stations to:

Announce major milestones

Inform farmers of public consultations

Share updates on construction progress

Radio is especially useful in remote districts where network coverage is limited.

9.4.5 Digital Platforms

In areas with reliable network access, WhatsApp groups moderated by IMCs or AGRITEX officers will be used for:

Sharing quick updates

Circulating pictures of ongoing works

Notifying community members of emergencies

Disseminating meeting reminders

Digital tools must complement rather than replace face to face disclosure.

9.4.6 Documentation and Public Access

PMU will maintain a repository of all safeguards documents including SEP, ESMP, PMP and GRM. These documents will be shared with:

Provincial offices

District authorities

IMCs for local reference

AfDB and IFAD also host these documents on their public websites as part of their disclosure policy.

9.5 Disclosure Responsibilities

Disclosure responsibilities are clearly allocated to ensure consistency.

IMCs are responsible for:

Posting notices

Informing plot holders of meetings

Sharing construction updates

Relaying farmers' questions to technical teams

AGRITEX plays a central role in:

Facilitating community meetings

Translating technical information into farmer friendly language

Coordinating demonstration sessions and training

Ensuring women and youth understand O and M rules

District Technical Departments, EMA, ZINWA and RDC offices are responsible for:

Reviewing information before it is disclosed

Providing clarifications on technical or regulatory issues

Ensuring that public information reflects accurate engineering and environmental data

Provincial Coordination Units ensure that disclosure practices are consistent across districts and that:

Districts report information dissemination activities

Emerging issues are elevated to national level

Provincial updates are shared during quarterly reviews

PMU ensures that:

National level information is disclosed properly

Key documents are shared publicly

All provinces have access to updated project materials

Lessons from donor missions feed back into disclosure improvements

AfDB and IFAD - The financiers do not manage day to day disclosure but:

Verify that information has been disclosed

Cross check community awareness during missions

Request improvement when disclosure is inadequate

Their oversight ensures that disclosure remains transparent and community oriented.

9.6 Ensuring Disclosure Reaches Vulnerable Groups

Special measures must be taken to ensure that detailed disclosure reaches women, youth, elderly persons, disabled persons and other vulnerable groups. This includes:

Holding dedicated briefings for women and youth

Using smaller group sessions rather than relying only on large public meetings

Engaging female AGRITEX officers or social workers where possible

Conducting household visits for elderly or mobility challenged individuals

Using oral communication methods for low literacy community members

Disclosure that excludes vulnerable groups undermines participation and violates safeguards obligations.

9.7 Feedback After Disclosure

Disclosure does not end when information is shared. It continues through:

Clarification sessions

Follow up meetings

Integration of feedback into designs or workplans

Adjusting information materials based on farmer understanding

Updating communities on how their feedback influenced decisions

Feedback loops give legitimacy to the engagement process and reduce distrust.

10. RESOURCES AND INSTITUTIONAL ARRANGEMENTS

Successful implementation of the Stakeholder Engagement Plan depends on clear institutional roles, consistent coordination and adequate resources that allow engagement to occur in a meaningful and continuous manner. Stakeholder engagement requires time, travel, facilitation skills, documentation tools, training materials and administrative support. These elements must be deliberately planned for because engagement cannot be left to goodwill or assumed to happen on the margins of other project activities.

This chapter outlines the institutional architecture that will support SEP implementation across scheme, district, provincial and national levels and identifies the human, financial and material resources required to sustain an effective engagement system throughout the project lifecycle. The arrangements described below reflect Zimbabwe's long standing agricultural extension and governance structures while also meeting the compliance expectations of AfDB and IFAD.

10.1 Institutional Structure for SEP Implementation

The SEP is implemented through a four level structure that mirrors the normal functioning of agricultural and local governance systems in Zimbabwe. Each level has distinct responsibilities and each plays a critical role in ensuring that stakeholder engagement is timely, responsive and inclusive.

10.1.1 Scheme Level Institutions

Scheme level institutions form the foundation of the SEP because this is where irrigation activities occur and where communities interact most frequently with the project. Key institutions include:

Irrigation Management Committees

IMCs are responsible for organising meetings, updating farmers, managing scheme notice boards, collecting concerns, supporting grievance handling and coordinating with AGRITEX and district officers. IMCs are the first point of contact for any communication between the project and irrigators.

Women's Groups, Youth Groups and Vulnerable Household Representatives

These groups ensure that engagement captures the needs of individuals who may otherwise be overshadowed in mixed meetings.

AGRITEX Ward Officers

Ward based AGRITEX officers translate technical information into farmer friendly guidance, mobilise communities and help document meetings. They support the IMC in day to day communication and ensure that engagement is aligned with agricultural calendars.

10.1.2 District Level Institutions

District structures coordinate technical verification, safeguards oversight and administrative responsibilities. The district is the operational hub that connects scheme realities with provincial and national decision making. Key institutions include:

District AGRITEX Office

Responsible for consolidating scheme level engagement information, facilitating training, supporting contractors with community entry and ensuring that engagement quality meets expected standards.

District Irrigation and Mechanisation Departments

These departments play a technical advisory role, ensuring that information shared with communities is accurate and that design changes or operational considerations are properly communicated.

Environmental Management Agency District Office

EMA ensures that communities understand environmental requirements and that engagement covers issues such as catchment protection, pesticide risks and waste management.

ZINWA Sub Catchment Council

ZINWA plays a key role in communicating water allocation decisions, explaining water permits and managing catchment wide engagement.

Rural District Council

RDC ensures alignment with local plans, permits and by laws. They support disclosure of planning and land use matters that affect irrigation schemes.

District Development Coordinator

The DDC provides administrative authority and convenes district level stakeholder platforms where procedural and accountability issues are discussed.

10.1.3 Provincial Level Institutions

The provincial tier provides strategic oversight, ensures cross district consistency and supports complex engagement processes involving multiple irrigation schemes. Key structures include:

Provincial AGRITEX Directorate

Coordinates technical messaging and harmonises engagement planning across districts.

Provincial Irrigation and Mechanisation Departments

Oversee district level engagement quality and provide backstopping during design review, construction supervision and scheme handover.

EMA and ZINWA Provincial Offices

Provide provincial level environmental and water governance oversight, support awareness campaigns and participate in provincial review forums.

Provincial Development Coordinator's Office

Chairs provincial review meetings and ensures alignment of engagement with broader development priorities.

Provincial RACP or SACP Coordination Unit

This unit ensures that stakeholder engagement, grievance management and safeguards implementation are integrated into annual workplans and reports.

10.1.4 National Level Institutions

The national level provides policy direction, coordination across provinces and compliance oversight. Key institutions include:

Project Management Unit

The PMU is responsible for overall coordination of the SEP. It ensures that provinces receive guidance, resources and templates for engagement. The PMU consolidates reports from provinces, communicates with AfDB and IFAD and ensures that engagement standards are met.

Ministry of Lands, Agriculture, Fisheries, Water and Rural Development

Provides policy guidance, ensures harmonisation across departments and elevates unresolved issues to national platforms.

AfDB and IFAD

The financing partners do not lead the engagement process but provide oversight through supervision missions, document reviews and direct consultations with communities and local authorities. Their involvement strengthens accountability and ensures that the SEP reflects international best practice.

10.2 SEP Human Resources Requirements

Effective implementation of the SEP requires a dedicated and coordinated set of personnel across all four tiers of the institutional structure. These include:

IMC chairpersons, secretaries, treasurers and committee members

AGRITEX extension officers at ward, district and provincial levels

Safeguards specialists within the PMU

District officers responsible for irrigation, mechanisation, RDC planning and EMA

Water management officers from ZINWA

Social workers or gender focal persons in districts where these exist

Communication officers in the PMU responsible for document production and public information

Contractors' community liaison personnel

Provincial coordination staff who oversee reporting and scheduling

These individuals require continuous support in the form of training, mobility resources and access to information so that engagement occurs without interruption.

10.3 Financial Resources for SEP Implementation

Stakeholder engagement requires a dedicated budget which must be integrated into the annual workplans of the PMU, districts and provinces. Financial resources are required for:

Transport for AGRITEX, district officers and provincial supervisors

Production of printed materials including brochures, posters and notices

Travel and subsistence for scheme level meetings

Facilitation costs for FGDs with women, youth and vulnerable groups

Organisation of district or provincial review meetings

Training materials for IPM, O and M and safeguards

Fuel for joint monitoring visits

Data bundles or communication equipment for digital communication

Allowances for IMC mobilisation activities

Stationery and documentation materials for record keeping

Adequate allocation ensures that engagement does not become irregular or dependent on the goodwill of individuals.

10.4 Material and Logistical Resources

Practical engagement requires simple but essential tools, including:

Notice boards at scheme level

Flip charts, maps and visual aides for explaining engineering designs

Stationery for minute taking, registers and documentation

Bicycles or motorbikes for AGRITEX field mobility where required

Projectors for provincial and national presentations

Smartphones or tablets for documentation and communication

Branded GRM posters showing reporting channels

Printed summaries of scheme level rules and O and M responsibilities

These resources help create a predictable and professional communication system that communities can trust.

10.5 Capacity Building for Institutions Responsible for Engagement

Capacity strengthening is essential for IMCs, extension staff, district officers and provincial teams. Training must cover:

Stakeholder engagement methods

Inclusive facilitation skills

Conflict sensitivity

Gender and youth mainstreaming

Environmental and social safeguards

Requirements of the GRM

Safe pesticide management under the PMP

O and M responsibilities

Record keeping and reporting

This capacity building creates a foundation for consistent and high quality engagement.

10.6 Coordination Arrangements

Coordination ensures that engagement activities are not isolated or contradictory. Coordination mechanisms include:

Monthly IMC meetings supported by AGRITEX

District technical review meetings chaired by the DDC

Quarterly provincial engagement reviews

Bi monthly coordination meetings at national level led by PMU

Joint field inspections involving multiple departments

Information sharing with donors during supervision missions

Clear internal communication pathways between scheme, district, province and national teams

Coordination strengthens the flow of information and ensures that corrective actions are implemented promptly.

10.7 Sustainability of Engagement Structures

Sustainability depends on strengthening the institutions that will continue operating after the project ends. This includes:

Building capacity within IMCs to manage meetings and maintain accurate records

Strengthening AGRITEX as the long term technical support structure

Supporting district and provincial reporting systems so that they can function beyond RACP

Ensuring that the GRM is institutionalised rather than project dependent

Promoting community ownership of disclosure and monitoring tools

Maintaining partnerships with EMA, ZINWA, RDCs and NGOs

Sustained engagement increases the likelihood that irrigation schemes remain functional, conflict free and environmentally sound long after the project has closed.

11. RISK MANAGEMENT FOR SEP IMPLEMENTATION

Effective stakeholder engagement requires more than a plan. It requires proactive management of risks that may interrupt communication, weaken participation, undermine trust or delay project activities. Risk management in the context of the SEP is therefore a continuous process of identifying barriers, anticipating threats and taking early action to prevent engagement failures. These risks reflect the realities of working in rural agricultural settings where climate variability, local politics, social dynamics, logistical constraints and institutional pressures can shift quickly.

This chapter identifies risks that may affect stakeholder engagement across all five provinces and describes measures that will ensure that engagement remains active, transparent and inclusive. The risk management approach follows AfDB ISS OS1 and OS10 and IFAD SECAP 10 expectations, which require Borrowers to anticipate obstacles and establish mitigation measures early.

11.1 Purpose of Risk Management in the SEP

Risk management within the SEP seeks to:

Identify conditions that may prevent effective communication or participation

Ensure that vulnerable groups are not excluded by design or circumstance

Respond to emerging tensions early before they escalate into conflict

Maintain trust between communities and project authorities

Support district and provincial teams with practical measures that keep engagement uninterrupted

Ensure continuity of engagement during construction peaks or unexpected disruptions

Strengthen transparency and accountability which is essential for donor trust

Risk management therefore protects both the integrity of the SEP and the quality of project implementation.

11.2 Key Risks Affecting Stakeholder Engagement

These risks are drawn from RACP field consultations, previous irrigation rehabilitation experiences and the Mash Central ESMP, which reflects patterns across all provinces.

11.2.1 Weak or Overstretched Local Institutions

IMCs, AGRITEX officers, EMA district teams and other frontline institutions may become overloaded due to competing programmes or insufficient staffing. This affects their ability to mobilise communities, document meetings or monitor grievances.

Potential effect:

Reduced quality of engagement, delays in information disclosure and unresolved grievances.

11.2.2 Limited Financial and Mobility Resources

District and provincial officers often face transport shortages and limited operational budgets. This reduces the frequency of scheme visits and weakens oversight.

Potential effect:

Delayed communication, inconsistent follow up and limited monitoring.

11.2.3 Political or Leadership Conflicts

In some schemes, leadership disputes, community politics or differences between traditional and elected authorities may interfere with mobilisation and acceptance of project information.

Potential effect:

Low attendance at meetings, misinformation and community resistance.

11.2.4 Climate Related Disruptions

Floods, storms, drought conditions and seasonal accessibility challenges can interrupt planned engagement activities.

Potential effect:

Delayed meetings, difficulty in reaching remote communities and reduced participation.

11.2.5 Construction Delays and Disruptions

Contractors may fall behind schedule or face logistical challenges. Construction activities may disrupt farming operations which can provoke tension if communication is inadequate.

Potential effect:

Frustration, increased grievances and strained relations between communities and contractors.

11.2.6 Exclusion of Women, Youth and Vulnerable Groups

Without deliberate effort, engagement can become dominated by men or influential individuals. This results in silent exclusion.

Potential effect: Unbalanced participation, failure to identify gender and youth related risks, weakened equity.

11.2.7 Low Literacy Levels and Technical Complexity

Irrigation engineering, safeguards information and water governance concepts are technically demanding. Without simplification, farmers may not fully understand the implications.

Potential effect:

Misunderstanding, misconception and reduced ownership of the project.

11.2.8 Weak Documentation and Reporting

Where minutes are not kept, attendance registers are incomplete or grievance logs are not updated, there is no record of engagement to guide monitoring or donor missions.

Potential effect:

Weak accountability, inability to verify engagement and potential compliance findings.

11.2.9 Poor Handling of Grievances

If grievances are ignored, delayed or poorly documented, community trust is lost and conflict increases.

Potential effect:

Escalation of disputes, disengagement and reputational risk for the project.

11.2.10 Limited Coordination Across Stakeholder Levels

If information is not harmonised between scheme, district, province and national levels, communities may receive inconsistent or conflicting information.

Potential effect:

Confusion and weakening of the engagement system.

11.3 Mitigation Measures for SEP Risks

The following measures help prevent or reduce risks and maintain the integrity of the SEP.

Strengthening Capacity of Scheme Level Structures

Provide refresher training for IMCs on facilitation, record keeping and communication

Support AGRITEX officers with tools for mobilisation including bicycles, airtime or stationery

Encourage rotational leadership or sub committees to reduce work overload

Ensuring Availability of Field Logistics

Allocate specific budgets for district transport and fuel for engagement activities

Promote joint district visits to maximise resources

Encourage use of WhatsApp for quick communication where network allows

Managing Leadership Conflicts Proactively

Engage both traditional and elected leadership early in the project

Maintain neutral facilitation during community meetings

Escalate unresolved tensions to district administrators (DDC)

Use FGDs for sensitive issues that cannot be addressed in public forums

Preparing for Climate Related Disruptions

Develop contingency meeting schedules during rainy seasons

Use cluster based meetings when access to scheme centres is difficult

Facilitate remote communication through AGRITEX where movement is restricted

Improving Communication During Construction

Share weekly updates with IMCs

Adjust schedules based on community needs during planting or harvesting periods

Provide advance notice when construction will affect access to plots

Hold on site safety meetings with farmers

Ensuring Inclusion of Vulnerable Groups

Conduct targeted FGDs for women, youth and vulnerable households

Schedule meetings at times that do not conflict with caregiving or seasonal activities

Use simple language and visual aids in meetings

Assign vulnerability focal persons within IMCs

Simplifying Technical Information

Use diagrams, maps and practical demonstrations

Ask engineers to explain concepts in everyday terms

Translate technical materials into Shona or Ndebele

Strengthening Documentation Systems

Provide templates for meeting minutes, registers and grievance logs

Train IMCs and district officers in documentation techniques

Conduct random provincial audits of engagement documentation

Reinforcing the GRM

Regularly explain the GRM during scheme meetings

Display GRM posters in visible locations

Ensure that feedback on grievances is communicated back to complainants

Escalate sensitive grievances immediately to district or provincial safeguards personnel

Enhancing Coordination Across Levels

Hold monthly coordination meetings across district technical teams

Share engagement calendars between district and provincial offices

Include IMCs in district feedback sessions

Provide consolidated communication from the PMU to avoid contradictory messages

11.4 Continuous Risk Review

Risk management is not a one time event. It must be updated continuously as the project evolves. District and provincial teams must review risks during their technical meetings and raise new issues to the PMU. AfDB and IFAD missions will also identify emerging risks that require immediate corrective measures.

Continuous review ensures that the risks do not accumulate unnoticed and that engagement remains responsive to community realities.

12. ESTIMATED BUDGET FOR SEP IMPLEMENTATION

Implementing the Stakeholder Engagement Plan requires adequate and predictable financial resources. Engagement cannot be effective if scheme level structures, district technical departments or provincial coordination units lack fuel, transport, materials or facilitation allowances. For this reason, the SEP budget must be integrated into the RACP annual workplans at national, provincial and district levels.

The purpose of this budget is to ensure that the engagement processes described in the earlier chapters are fully supported, that communication with farmers remains active throughout the project and that safeguards responsibilities are not undermined by lack of operational resources. This aligns with AfDB ISS OS1 and OS10 and IFAD SECAP 10, both of which require Borrowers to resource engagement adequately.

The budget categories below cover the five RACP provinces and reflect typical Zimbabwean field conditions where travel distances are long, fuel costs are significant and facilitation for meetings must comply with standard subsistence allowances.

12.1 Budget Principles

The budget is based on the following principles:

1. **Inclusivity**

Engagement must reach all groups including women, youth and vulnerable persons. Budget lines therefore support FGDs, targeted sessions and accessibility measures.

2. **Decentralisation**

   Most engagement happens at scheme and district levels. The budget therefore supports local mobility, district coordination and materials needed for on the ground facilitation.

3. **Practicality**

   Costs reflect actual Zimbabwean rates including fuel, meals, transport and allowances. The national subsistence allowance benchmark (USD 75 per day) is used for planning.

4. **Flexibility**

   Provinces differ in geography and access. The budget allows for adjustments depending on travel distances, number of schemes and district workload.

5. **Transparency and accountability**

   Costs are itemised clearly to support donor reviews, PMU audits and provincial reporting.

12.2 Budget Categories and Narrative Explanation

Budget categories are presented to reflect the full scope of stakeholder engagement work required under RACP. The budget for implementing the SEP covers the full spectrum of activities required to ensure continuous, inclusive and well-coordinated engagement across RACP irrigation schemes, districts, provinces and national structures. It supports community consultations such as IMC meetings, disclosure sessions, safety briefings and operational review sessions, including specialised meetings on catchment and water allocation management. Dedicated allocations are made for focus group discussions with women, youth and vulnerable households, ensuring facilitators, materials and transport are available for meaningful participation.

District-level engagement requires resources for DTWG meetings, joint inspections, labour and safety compliance monitoring and coordination led by the DDC, supported by fuel, logistics and documentation needs. Provincial engagement funding enables quarterly provincial reviews, travel, report compilation and venue arrangements, while national-level coordination supports safeguards missions, consolidation of reports and national stakeholder workshops. The budget also covers extensive capacity building for IMCs, AGRITEX officers, district technical teams, contractors and safeguards staff, including trainer fees, manuals and demonstration materials. Mobility and transport resources are essential for field travel, vehicle hire, maintenance and motorbike support for AGRITEX.

Communication materials such as notice boards, posters, GRM signage, radio announcements and translations are funded to ensure information reaches all stakeholders. Monitoring and reporting activities require production of templates, registers, digital documentation tools and archiving systems. A contingency allocation provides flexibility to address climate disruptions, unplanned consultations, conflict resolution needs and additional donor supervision requirements. A summary of the budget categories and descriptions is given in Table 46.

Table 46: Budget Categories and Descriptions

Budget Category	Description of Activities Covered
Community Consultations and Scheme Meetings	Routine IMC meetings, community assemblies, disclosure sessions, construction safety briefings, operational review sessions, and catchment or water-allocation meetings. Costs cover staff transport, refreshments where appropriate, printing and minor venue support.

Focus Group Discussions and Targeted Engagement	Engagements with women, youth and vulnerable groups in smaller settings. Costs include facilitation materials, transport for facilitators and support to enhance inclusive participation.
District Level Engagement and Coordination	DTWG meetings, technical inspections, labour and safety compliance checks with contractors and DDC-led district coordination. Budget covers fuel, meeting logistics and documentation materials.
Provincial Engagements	Quarterly provincial review meetings, travel of district teams, preparation of provincial reports, meeting venues and printing.
National Level Coordination	PMU consolidation of provincial report

12.3 Indicative Budget Table

Based on studies carried and issues noted an indicative budget was developed as presented in Table 47.

Table 47: Indicative Budget

Budget Category	Estimated Annual Cost (USD)	Description
Community consultations and meetings	120 000	Scheme meetings, disclosures, construction updates
Focus group discussions	45 000	Women, youth and vulnerable group sessions
District engagement and coordination	150 000	DTWG meetings, inspections, district supervision
Provincial review processes	80 000	Quarterly reviews, provincial reporting, travel
National coordination and oversight	60 000	PMU workshops, donor review preparation
Training and capacity building	110 000	IMC training, AGRITEX skills, safeguards sessions
Mobility and transport	200 000	Fuel, vehicle hire, motorbike support
Communication and information materials	40 000	Posters, GRM boards, leaflets, radio
Monitoring and documentation	50 000	Registers, documentation tools, printing
Contingency (10 percent)	85 500	Risk related flexibility
Total Estimated Annual SEP Budget	940 500	Across all five provinces

Note: The exact figures will be refined during the province by province workplanning process. The table shows the indicative allocation for five provinces combined.

These figures reflect the scale of activities expected within large rural provinces where travel distances are significant and stakeholder engagement requires continuous presence.

12.4 Budget Responsibility and Flow of Funds

Budget responsibilities are allocated as follows:

- **PMU** manages the central SEP budget and allocates resources to provinces
- **Provincial Coordination Units** receive allocations and distribute funds to districts based on activities and number of schemes

- **District Teams** implement scheme level engagements and manage documentation
- **IMCs** receive minimal support mainly for communication materials and meeting facilitation
- **Procurement and finance units** ensure compliance with financial regulations

AfDB and IFAD review budget execution during supervision missions to ensure resources match planned activities.

12.5 Sustainability of SEP Financing

To ensure continuity:

- SEP costs will be integrated into annual Ministry budgets beyond RACP
- IMCs will strengthen their administrative capacity to manage low cost communication tools
- AGRITEX will retain materials and training tools for use after project closure
- Provincial and district structures will continue to support engagement as part of routine agricultural governance

A well-resourced SEP remains functional and credible, ensuring that communities continue benefiting from transparent communication and inclusive participation.

13. CONCLUSION

The Stakeholder Engagement Plan for the Resilience Agriculture Cluster Project represents more than a safeguards requirement. It is a practical and operational guide for ensuring that farmers, communities, traditional leaders, district technical departments, provincial authorities and national institutions work together throughout the life of the project in a manner that is transparent, inclusive and respectful of local realities.

Engagement is essential in an irrigation rehabilitation programme because irrigation systems depend on social cohesion, cooperative management, and predictable information flows and shared responsibility. Irrigation cannot work without community ownership and community ownership cannot exist without genuine engagement. The SEP therefore provides a foundation for building trust at scheme level and strengthening coordination between all levels of government and project management.

The plan recognises the diversity of stakeholders involved in rural agricultural systems across the five RACP provinces. It provides structured methods for engaging different groups, from irrigators and IMCs to women, youth and vulnerable households. It outlines realistic timelines and frequencies for consultations, clearly defined roles and responsibilities, communication systems and monitoring tools that remain practical for frontline implementers such as AGRITEX, EMA, ZINWA, RDCs and district irrigation teams.

Throughout the document, the SEP remains faithful to the principles of AfDB ISS OS10 and IFAD SECAP 10. These principles promote informed participation, transparency and respect for community voices. They also emphasise grievance handling, disclosure of information and the need for engagement processes that reach vulnerable and marginalised groups without discrimination. The SEP therefore positions RACP as a community anchored project rather than a top down intervention.

The plan is dynamic and will evolve as the project progresses. Field realities may shift due to climate events, construction demands, evolving community priorities or institutional pressures. New risks may emerge which require updated engagement strategies. The SEP must therefore be reviewed regularly at district, provincial and national levels and adapted in response to monitoring results, grievance trends and lessons identified during AfDB and IFAD supervision missions.

The successful implementation of this SEP depends on the commitment of the institutions involved. IMCs must remain active and transparent. AGRITEX must continue providing community facilitation and technical guidance. District officers must ensure that scheme level engagement is supported and that grievances are addressed quickly. Provincial coordination units must harmonise cross district engagement. The PMU must ensure accountability, resource allocation and compliance with financiers' expectations.

Above all, success depends on the participation and trust of the communities themselves. The SEP provides them with platforms to interact with the project, raise questions, express concerns, ask for clarification, contribute to design decisions and hold implementing institutions accountable. This mutual engagement ensures that irrigation rehabilitation not only restores infrastructure but also strengthens the social fabric and local institutions that sustain agricultural productivity and rural livelihoods.

Through this plan, RACP commits to an engagement process that is continuous, respectful, inclusive and grounded in the lived experience of farmers and their communities. It strengthens collaboration between local structures and national institutions and ensures that communities remain central to the success of the project throughout construction, operation and beyond.

Appendix 18: Grievance Redress Mechanism

EXECUTIVE SUMMARY

The Resilience Agriculture Cluster Project (RACP) Grievance Redress Mechanism (GRM) is a core component of the project's Environmental and Social Safeguard (ESS) system. It establishes a transparent, predictable, and culturally appropriate mechanism through which individuals, communities, workers, contractors, and other stakeholders can raise concerns or complaints related to project activities, impacts, or behaviours of project actors. The GRM strengthens accountability, supports conflict prevention, and enhances trust between communities and implementing institutions by ensuring that grievances are handled in a timely, fair, and rights-compatible manner.

The RACP is implemented by the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development with support from IFAD, AfDB, and the Government of Zimbabwe. It focuses on climate-smart irrigation rehabilitation, market infrastructure, and value-chain development across rural districts. Given its interface with farmers, communities, contractors, government agencies, and vulnerable groups, the establishment of a structured GRM helps safeguard the rights, livelihoods, and security of affected persons throughout the project lifecycle.

The mechanism aligns with national legislation including the Environmental Management Act [Chapter 20:27], Labour Act [Chapter 28:01], and Traditional Leaders Act [Chapter 29:17], as well as the safeguard policies of IFAD (SECAP 2021) and AfDB (Operational Safeguard 10 on stakeholder engagement). These frameworks emphasise accessibility, non-discrimination, fairness, confidentiality, and timeliness in grievance management.

The GRM builds on lessons from SACP, incorporating proven approaches for early conflict resolution, social inclusion, gender-sensitive communication, and community-based accountability. It also integrates principles of the UN Guiding Principles on Business and Human Rights (UNGP 31) such as legitimacy, accessibility, predictability, equity, transparency, rights-compatibility, and continuous learning. This ensures that all persons, including marginalized groups, have space to be heard and protected.

The mechanism is implemented through a multi-tiered structure. At the community level, local committees receive, document, and aim to resolve grievances through dialogue and mediation. At district and provincial levels, DPIUs and PPIUs manage complex or unresolved cases, coordinate with technical officers, local authorities, and regulatory bodies such as EMA, and report upward. At the national level, the PMU's Grievance Redress Committee provides oversight, harmonisation, reporting, and escalation to funding partners.

The GRM addresses a wide range of issues, including environmental impacts, land access disputes, compensation and livelihood restoration concerns, occupational health and safety, labour grievances, social exclusion, corruption, misconduct, and gender-based violence or sexual exploitation and abuse (GBV/SEAH). It incorporates IFAD's Incident Management Procedures, which mandate immediate reporting of serious incidents such as fatalities, severe environmental damage, and GBV/SEAH cases.

Overall, the RACP GRM goes beyond compliance. It is a governance tool that supports responsive project management, proactive problem-solving, and continuous improvement. It promotes mutual understanding between communities and implementing agencies and ensures that corrective measures are effectively implemented. Through this mechanism, the project reinforces its commitment to ethical practice, environmental sustainability, and social justice, contributing to equitable and resilient agricultural transformation in Zimbabwe.

ABBREVIATIONS

Abbreviation	Full Term
AfDB	African Development Bank
AMA	African Member Association
CGRC	Community Grievance Redress Committee
DPIU	District Project Implementation Unit
EMA	Environmental Management Agency
ESS	Environmental and Social Safeguards
ESMP	Environmental and Social Management Plan
GBV	Gender-Based Violence
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IFAD	International Fund for Agricultural Development
IRM	Independent Recourse Mechanism
ISS	Integrated Safeguards System
MEL	Monitoring, Evaluation and Learning
M&E	Monitoring and Evaluation
OHS	Occupational Health and Safety
PPIU	Provincial Project Implementation Unit
PMU	Project Management Unit
RACP	Resilience Agriculture Cluster Project
RDC	Rural District Council
SEAH	Sexual Exploitation, Abuse and Harassment
SEP	Stakeholder Engagement Plan
ESSS	Environmental and Social Safeguard Specialist
UNGP	United Nations Guiding Principles on Business and Human Rights
VFU	Victim Friendly Unit

TERM	DEFINITIONS
Affected Parties / Persons (PAPs)	Individuals, groups, or organizations that are directly or indirectly impacted by project activities, positively or negatively. Includes those affected economically, socially, or environmentally.
Anonymous Complaint	A grievance submitted without disclosing the identity of the complainant. The GRM accepts anonymous submissions to encourage reporting, especially for sensitive issues such as GBV/SEAH.
Appeal / Escalation	The formal process of forwarding an unresolved grievance to a higher-level authority within the GRM structure (e.g., from Community to District or Provincial level).
Complainant	Any individual, household, or organization that lodges a complaint or concern related to the project's activities or impacts.
Conflict Resolution	The process of reaching an agreement or mutual understanding through negotiation, mediation, or arbitration when grievances arise.
Confidentiality	The protection of a complainant's personal information from unauthorized disclosure throughout the grievance process, in line with data protection and survivor-centered principles.
Corrective Action	Specific measure or intervention implemented to resolve or mitigate the cause of a grievance and prevent recurrence.
Data Protection	The safeguarding of personal and sensitive information collected through the GRM to ensure privacy, in line with Zimbabwe's Access to Information and Protection of Privacy Act and international standards.
Feedback	Information provided to complainants or stakeholders regarding the progress or outcome of their grievance or concern. Forms a core part of accountability in the GRM.
Gender-Based Violence (GBV)	Any harmful act perpetrated against a person's will that is based on socially ascribed gender differences. Includes physical, sexual, emotional, or economic harm.
Grievance	A concern, complaint, or perceived injustice raised by an individual or group who believes they have been adversely affected by project activities, policies, or conduct. Grievances may relate to environmental impacts, labour issues, land disputes, health and safety, GBV/SEAH, or corruption.
Grievance Register / Log	The official database or ledger maintained at each GRM level (community, district, provincial, national) documenting details of each grievance, actions taken, and final resolution status.
Grievance Redress Mechanism (GRM)	A structured system enabling project-affected persons and stakeholders to lodge concerns, have them investigated, and receive a response or remedy.

TERM	DEFINITIONS
	The RACP GRM operates at multiple levels (community to national) with escalation and feedback loops.
Independent Recourse Mechanism (IRM)	The AfDB's independent accountability office that provides affected people the opportunity to request a compliance review or problem-solving process if grievances are not resolved at project level.
Mediation	A voluntary and confidential process where a neutral third party assists disputing parties to reach a mutually acceptable agreement. Used frequently in community and district-level grievance resolution.
Non-Retaliation	A principle ensuring that complainants and witnesses are protected from threats, coercion, or adverse treatment for raising grievances.
Redress	The remedy or resolution provided in response to a legitimate grievance, which may include restitution, compensation, policy change, or corrective action.
Resolution	The closure of a grievance following mutual agreement between the complainant and the responsible authority, and completion of agreed corrective actions.
Sensitive Grievance	A complaint that involves private, security, or reputational risk (e.g., GBV/SEAH, corruption, or labour exploitation), requiring confidential handling and restricted access.
Stakeholder	Any person, group, or organization that has an interest in or is affected by the project's activities and outcomes, whether directly or indirectly.
Survivor-Centered Approach	An ethical framework for handling GBV and SEAH cases that prioritizes the rights, dignity, and safety of survivors, ensuring informed consent and confidentiality.
Timeliness	The period within which a grievance must be acknowledged, processed, and resolved, as stipulated in the GRM Standard Operating Procedures.
Transparency	Openness in communicating the GRM process, decisions, and results to stakeholders, while protecting confidentiality.
Vulnerable Groups	Individuals or communities that are more likely to be adversely affected by project impacts or less able to access project benefits. Includes women, youth, persons with disabilities, elderly persons, or those with limited literacy or socio-economic power.

1.0 INTRODUCTION AND BACKGROUND

The Grievance Redress Mechanism (GRM) forms a critical component of the Environmental and Social Safeguard (ESS) instruments for the Resilience Agriculture Cluster Project (RACP). It provides a structured, transparent, and culturally appropriate system through which individuals, communities, and workers can raise concerns, complaints, or suggestions regarding project activities and their impacts on people or the environment. The GRM is designed to enhance accountability, strengthen community trust, and ensure that grievances are addressed promptly and fairly in accordance with Zimbabwean law and the safeguard requirements of the International Fund for Agricultural Development (IFAD) and the African Development Bank (AfDB).

The RACP is a national initiative led by the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) with financial support from IFAD, AfDB, and the Government of Zimbabwe. It aims to improve agricultural productivity, strengthen rural livelihoods, and build climate resilience through climate-smart irrigation rehabilitation, market infrastructure development, and sustainable natural resource management. As such, the project interfaces directly with rural communities, government institutions, contractors, and private value chain actors, making it essential to have a formal grievance mechanism that ensures inclusiveness, transparency, and continuous engagement throughout the project life cycle.

The establishment of this GRM aligns with national environmental and social governance frameworks including the Environmental Management Act [Chapter 20:27], the Labour Act [Chapter 28:01], the Traditional Leaders Act [Chapter 29:17], and relevant statutory instruments that emphasize citizen participation, environmental stewardship, and fair labour practices. It also adheres to the AfDB Integrated Safeguards System (ISS 2023), particularly Operational Safeguard 10 on Stakeholder Engagement and Information Disclosure, and IFAD's Social, Environmental, and Climate Assessment Procedures (SECAP 2021) which require borrower institutions to establish accessible, equitable, and timely grievance redress mechanisms at project level.

The RACP GRM builds upon lessons from existing frameworks such as the ZAVaCEP and SACP grievance systems, both of which have demonstrated the value of early conflict resolution, social inclusion, and gender-sensitive communication in community-based agricultural programs. It integrates the core principles of the UN Guiding Principles on Business and Human Rights (UNGP 31), legitimacy, accessibility, predictability, equity,

transparency, rights-compatibility, and continuous learning — ensuring that all project stakeholders, including marginalized groups, have an avenue to be heard and supported.

This mechanism operates at multiple levels, from community to national oversight, and is embedded within the project's institutional architecture (see **Figure 1**). At community level, trained grievance committees composed of local leaders, women, youth, and vulnerable group representatives act as the first point of contact. At district and provincial levels, the District Project Implementation Units (DPIUs) and Provincial Project Implementation Units (PPIUs) handle more complex or unresolved grievances, ensuring timely coordination with technical officers, local authorities, and the Environmental Management Agency (EMA). At the national level, the Project Management Unit (PMU) hosts a Grievance Redress Committee (GRC) responsible for oversight, policy guidance, documentation, and reporting to both the Ministry and funding partners.

The GRM covers grievances related to environmental impacts, land access, compensation, occupational health and safety, gender-based violence (GBV), sexual exploitation, social exclusion, pollution, waste management, and livelihood disruption. It is complemented by specific protocols for incident reporting in line with IFAD's Incident Management Procedures (2023), which require immediate notification of serious events such as fatalities, severe environmental damage, or GBV/SEAH cases.

Grievance Resolution Process

Ultimately, the RACP GRM is not only a compliance instrument but also a governance tool that strengthens accountability and inclusion in the implementation of the project. It supports proactive problem-solving, facilitates mutual understanding between communities and implementers, and ensures that corrective measures are identified and implemented effectively. Through this mechanism, the project reaffirms its commitment to ethical practice, environmental sustainability, and social justice as foundations for resilient and equitable agricultural transformation in Zimbabwe.

2.0 OBJECTIVE AND SCOPE

2.1 Primary Objective

The primary objective of the RACP Grievance Redress Mechanism is to establish an accessible and credible system for receiving, recording, evaluating, and resolving complaints and concerns arising from the implementation of the project.

It ensures that grievances from individuals, groups, and institutions are addressed in a transparent, timely, and fair manner that upholds the principles of equity, accountability, and respect for human dignity. The mechanism also serves as a tool for early conflict prevention, social cohesion, and continuous improvement in project implementation through systematic feedback and adaptive management.

2.2 Specific Objectives

The GRM aims to:

- Provide project-affected persons with a reliable platform to express concerns or dissatisfaction regarding environmental, social, health, safety, or labour-related issues associated with RACP activities.
- Enhance stakeholder trust and confidence by promoting transparency, accountability, and participation in project decision-making.
- Resolve disputes at the lowest appropriate level to minimize escalation, litigation, and project delays.
- Identify, document, and address recurrent issues and risks to inform better management responses and safeguard performance.
- Ensure compliance with Zimbabwean legislation and international financing partners' safeguard policies, including AfDB's Operational Safeguard 10 and IFAD's SECAP 2021.
- Strengthen institutional learning and capacity building for continuous improvement of safeguards implementation.

2.3 Scope

The **s**cope of the GRM covers the entire project lifecycle, from planning and design through construction, operation, monitoring, and closure. It applies to all RACP interventions, including rehabilitation of irrigation schemes, market infrastructure, value chain development, and associated activities such as civil works, procurement, and service delivery. It is equally applicable to all implementing partners, contractors, consultants, government departments, and community structures involved in the project.

Grievances that can be addressed through the GRM include, but are not limited to:

- Environmental concerns such as pollution, water contamination, waste mismanagement, land degradation, or destruction of vegetation.
- Social issues including exclusion from benefits, unfair compensation, disruption of livelihoods, or resettlement disputes.
- Occupational health and safety issues affecting workers or communities.
- Labour-related matters such as delayed wages, unfair dismissal, or unsafe working conditions.
- Gender-based violence (GBV), sexual exploitation and abuse (SEA), harassment, and discrimination.
- Misconduct, corruption, or misuse of project resources.
- Any action or inaction by project staff or partners that adversely affects communities or individuals.

The GRM also recognizes that some grievances may fall outside the project's direct mandate or legal authority. In such cases, complainants are referred to appropriate institutions such as the Environmental Management Agency (EMA), the Labour Court, the Zimbabwe Human Rights Commission, the Gender Commission, or the judiciary. The RACP PMU will maintain coordination with these institutions to ensure complementarity and coherence in redress procedures.

The mechanism adopts a **proportional approach** consistent with the nature, scale, and risk profile of project interventions. Minor issues, such as temporary access restrictions or minor construction nuisances, can be addressed directly at the community level through informal negotiation and mediation. Complex grievances involving multiple stakeholders or legal implications are escalated to higher levels for formal resolution.

To ensure inclusiveness, the GRM caters for all affected groups, including women, youth, persons with disabilities, and marginalized communities. Dedicated outreach measures, such as translation of materials into local languages, use of pictorial posters, and engagement through local radio or social networks will be employed to enhance awareness and participation. Confidential channels are provided for sensitive cases, particularly those involving GBV or workplace harassment, to protect complainants and ensure survivor-centered handling.

From an operational standpoint, the RACP GRM links directly with the project's Environmental and Social Management System (ESMS). Data collected through grievance logs contributes to the project's monitoring and evaluation framework and informs corrective

action planning. The PMU Safeguards Specialist and Social Development Officer are responsible for ensuring that grievances are systematically tracked, analyzed, and reported in quarterly and annual safeguard performance reviews submitted to IFAD, AfDB, and national authorities.

The ultimate scope of the GRM extends beyond mere dispute resolution — it is a mechanism for strengthening social accountability, reinforcing community ownership, and embedding participatory governance within the RACP's sustainability framework. By institutionalizing transparent feedback loops and responsive management, the project ensures that every voice, particularly from vulnerable and rural communities, contributes to equitable and sustainable development outcomes.

3.0 PRINCIPLES AND STANDARDS

The GRM for the RACP is anchored on a set of fundamental principles and internationally recognized standards that ensure the system is transparent, legitimate, predictable, and responsive to the needs of all stakeholders. These principles draw from the Zimbabwean legal framework, the African Development Bank's Integrated Safeguards System (ISS 2023), the International Fund for Agricultural Development (IFAD) Social, Environmental and Climate Assessment Procedures (SECAP 2021), and the United Nations Guiding Principles on Business and Human Rights (UNGP, 2011). Together, they form the ethical and procedural foundation upon which grievance handling is conducted, ensuring consistency, fairness, and sustainability.

The GRM does not operate in isolation but as an integral element of the project's overall Environmental and Social Safeguards (ESS) architecture. It reinforces the implementation of Environmental and Social Management Plans (ESMPs), Labour Management Plans (LMPs), Stakeholder Engagement Plans (SEPs), and Integrated Pest Management Plans (IPMPs), ensuring that any adverse issues arising from these instruments are identified and addressed efficiently. The mechanism therefore functions as both a remedial and preventive tool, enabling continuous learning and improvement in safeguard performance. Thus the GRM relies on a robust accountability and inclusive approach summarised in **Figure 2**.

Accountability and Inclusivity Matrix

3.1 Legitimacy and Independence

The RACP GRM is structured to maintain legitimacy through clearly defined roles, responsibilities, and oversight mechanisms. Committees at each level, community, district, provincial, and national, these are constituted transparently and include representatives of women, youth, traditional leaders, local government authorities, and implementing agencies. This inclusive composition reinforces public confidence that grievances will be handled without bias. Each committee functions independently of project contractors or entities that could pose a conflict of interest. Oversight by the Project Management Unit (PMU) ensures uniform standards across all provinces while maintaining impartiality.

Legitimacy is also strengthened by continuous monitoring and auditing by independent institutions such as the Environmental Management Agency (EMA), the Gender Commission, and IFAD or AfDB supervision missions. These external bodies provide checks and balances, ensuring adherence to international best practices in grievance handling and reporting.

3.2 Accessibility and Inclusivity

Accessibility is central to the effectiveness of the GRM. Every individual, group, or organization affected by RACP activities must have the opportunity to lodge a grievance without discrimination or cost. Access channels include verbal submissions during community meetings, written letters, complaint boxes, SMS, WhatsApp, email, and toll-free numbers. Information about the GRM is disseminated widely in local languages through meetings, flyers, posters, and radio broadcasts to ensure communities in remote areas are aware of their rights and the procedures to follow.

The mechanism is deliberately inclusive, ensuring that vulnerable groups such as women, youth, persons with disabilities, the elderly, and indigenous populations can participate safely and confidently. Gender-balanced representation on grievance committees is mandatory. In cases of Gender-Based Violence (GBV) or Sexual Exploitation, Abuse and Harassment (SEAH), survivors are provided confidential and survivor-centered channels to report incidents through trained focal persons. These cases are handled discreetly in coordination with local health and law enforcement services and aligned with the IFAD Incident Response Protocols (2023).

3.3 Predictability and Timeliness

A predictable and time-bound process is vital to maintain confidence in the mechanism. The GRM sets clear procedural steps and timelines: acknowledgment of receipt within five working days, assessment and classification within ten days, and resolution of simple grievances within thirty days. Complex grievances involving multiple stakeholders or requiring investigations are resolved within sixty days. If a case remains unresolved, it is escalated to the next level of the hierarchy as indicated in the grievance flowchart.

Predictability also extends to communication. Complainants are informed of progress at each stage through SMS, phone calls, or written notifications. The outcome and agreed corrective actions are documented, and the complainant's satisfaction is confirmed before closure. This disciplined approach eliminates ambiguity and ensures fairness and transparency.

3.4 Fairness, Equity, and Cultural Appropriateness

The RACP GRM is grounded in the principles of fairness and respect for cultural norms. Dispute resolution processes incorporate local customs and traditional authority systems as entry points while maintaining adherence to statutory and safeguard requirements. Community elders, traditional leaders, and local councils play advisory roles to facilitate mutual

understanding and peaceful settlement. Equity ensures that no group or individual is unfairly advantaged or marginalized.

Decisions are based on objective evidence and stakeholder consultation rather than hierarchy or influence. Where needed, mediation is used to find balanced outcomes. The process aims not to assign blame but to restore relationships, rebuild trust, and promote sustainable solutions consistent with community values and environmental protection.

3.5 Confidentiality and Protection from Retaliation

Confidentiality is a non-negotiable principle, particularly in handling sensitive issues such as GBV, SEA, or workplace harassment. Information about complainants and the content of grievances is stored securely and only shared with authorized personnel directly involved in resolution. The system enforces strict data protection protocols to prevent victimization, stigma, or social exclusion.

A non-retaliation policy is in place to protect complainants, witnesses, and committee members from threats, coercion, or adverse repercussions. Awareness sessions are conducted to emphasize the right to voice concerns safely. The PMU is responsible for monitoring compliance and intervening immediately if intimidation or retaliation is reported.

3.6 Transparency and Accountability

Transparency enhances public confidence and deters misuse of the system. All steps of the grievance process are documented in a central database managed by the Safeguards Specialist and Social Development Officer at the PMU. Regular summaries of grievances, resolutions, and lessons learned are published in project newsletters, notice boards, and reports shared with stakeholders. However, personal data and sensitive information are excluded to safeguard privacy.

Accountability is achieved through clear assignment of responsibilities, periodic reviews by the Project Steering Committee, and independent evaluations by external monitors. Each committee level must prepare quarterly reports summarizing grievance trends, status, and challenges encountered. These reports are consolidated and submitted to IFAD, AfDB, and the Ministry for oversight.

3.7 Continuous Learning and Improvement

A key objective of the GRM is to serve as a feedback mechanism for institutional learning. Patterns of grievances such as recurring complaints about contractor performance, irrigation access, or compensation that provide valuable insights for improving project design and

implementation. The PMU integrates these findings into quarterly safeguard reviews and adjusts management plans accordingly.

Lessons from grievance data are also shared across provinces to foster peer learning. Capacity-building sessions are organised for grievance committees, contractors, and community representatives to strengthen responsiveness and consistency. Over time, the GRM evolves into a dynamic governance tool that promotes adaptive management and strengthens resilience across project activities.

3.8 Rights Compatibility and Legal Alignment

The mechanism is designed to complement, not replace, existing statutory and judicial processes in Zimbabwe. It is consistent with the Environmental Management Act, the Labour Act, and the Constitution of Zimbabwe (2013), which guarantees the right to administrative justice and participation in decision-making. Complainants retain the right to seek legal recourse in national courts or escalate unresolved cases to IFAD's Enhanced Complaints Mechanism or AfDB's Independent Recourse Mechanism.

Rights compatibility ensures that the GRM decisions respect human rights principles and national law. Any actions recommended through grievance resolution must be consistent with due process, non-discrimination, and fairness.

3.9 Ethical Integrity and Good Faith Engagement

The GRM promotes ethical conduct by requiring all actors, project staff, contractors, community leaders, and beneficiaries to engage in good faith and uphold integrity throughout the process. False reporting or manipulation of complaints for personal or political gain is discouraged through awareness campaigns and transparent procedures. Ethical integrity is reinforced by a code of conduct applicable to all committee members.

3.10 Summary of Core Standards

Table 1 summarises the alignment between GRM principles and the corresponding regulatory or institutional frameworks guiding RACP implementation.

GRM Principles

Principle	Guiding Framework	Purpose
Legitimacy	AfDB OS10, IFAD SECAP §1.8	Builds trust and credibility
Accessibility	UNGP 31, Constitution of Zimbabwe Sect 68	Ensures all can participate
Predictability	AfDB ESAP 2023	Establishes clarity and timelines

Principle	Guiding Framework	Purpose
Fairness	Labour Act, Traditional Leaders Act	Promotes impartial and just outcomes
Confidentiality	IFAD GBV Protocols 2023	Protects complainant identity and dignity
Transparency	EMA Sect 97, IFAD SECAP Sect 2.2	Promotes accountability and learning
Non-Retaliation	UNGP 31, Human Rights Act	Safeguards complainants and witnesses
Continuous Learning	IFAD SECAP Sect 3.6	Encourages adaptive management

4.0 INSTITUTIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

The effectiveness of the Grievance Redress Mechanism (GRM) depends on a clearly defined institutional framework that promotes coordination, accountability, and timely action across all administrative levels. The RACP operates through a decentralized structure that extends from the community to the national level, each tier serving distinct but complementary functions in grievance reception, assessment, and resolution. This section outlines the institutional architecture, roles, and responsibilities of all key actors involved in the management of grievances to ensure consistency with the principles of accessibility, transparency, and equity established under IFAD and AfDB safeguard systems as well as Zimbabwean law.

The GRM is built on a multi-tiered governance model composed of four operational levels: Community Grievance Redress Committees (CGRCs), District Project Implementation Units (DPIUs), Provincial Project Implementation Units (PPIUs), and the National Project Management Unit (PMU). Each level represents an escalation point that ensures grievances are handled efficiently, beginning where the issue arises and moving upward only when necessary.

4.1 Community Grievance Redress Committees (CGRCs)

At the grassroots level, the Community Grievance Redress Committee serves as the first point of contact for project-affected persons. It operates within irrigation schemes, business clusters, and surrounding communities. The CGRC is composed of seven to nine members, selected through community consultations to ensure balanced representation of gender, youth, farmers, traditional leaders, and vulnerable groups.

The committee's primary role is to receive, document, and attempt early resolution of complaints using participatory dialogue. Its functions include:

- Receiving oral or written complaints and recording them in the community grievance register.
- Acknowledging receipt of the grievance within three working days.
- Conducting initial verification or informal mediation with relevant parties.
- Escalating unresolved or complex grievances to the District Project Implementation Unit within ten days.
- Maintaining confidentiality, particularly for sensitive issues such as GBV/SEAH, and referring these immediately to the designated GBV focal person or appropriate service providers.
- Reporting monthly to the DPIU on the number, nature, and resolution status of grievances.

Members of the CGRC receive periodic training facilitated by the PMU and EMA to strengthen their understanding of environmental management, conflict sensitivity, gender-based violence referral protocols, and human rights protection. The CGRC also coordinates with traditional courts and local authorities to avoid duplication and ensure cultural legitimacy.

4.2 District Project Implementation Units (DPIUs)

The DPIU is the operational backbone of the GRM at the district level. It provides technical oversight and ensures consistency across all community committees within its jurisdiction. It is chaired by the District Agritex Officer or the District Development Coordinator, supported by the District Environmental Officer, Social Development Officer, and Gender Focal Person.

The DPIU is responsible for:

- Receiving escalated grievances from CGRCs or those lodged directly at district offices.
- Conducting a preliminary review to determine validity, scope, and required level of intervention.
- Convening hearings or mediation sessions involving relevant stakeholders.
- Coordinating with contractors or service providers to implement corrective actions.
- Ensuring that environmental or social grievances requiring technical input are referred to the appropriate specialists (e.g., engineers, environmental officers).
- Documenting all actions taken and submitting a detailed monthly report to the PPIU.

For grievances related to occupational health and safety, labour disputes, or contractual breaches, the DPIU liaises with the Ministry of Labour, the EMA, and the Rural District Council (RDC). Cases of alleged corruption or misuse of funds are reported to the Anti-

Corruption Commission through established government channels, while GBV/SEAH complaints are managed confidentially with referral to the Zimbabwe Gender Commission or Victim Friendly Units.

4.3 Provincial Project Implementation Units (PPIUs)

The PPIU operates as an intermediary level responsible for policy harmonization, data validation, and escalation management across districts. It ensures uniform grievance-handling standards are maintained and that all district-level actions align with national safeguard and donor requirements.

The PPIU composition typically includes the Provincial Agritex Officer, EMA Provincial Officer, Social and Gender Development Specialist, and representatives from the Ministry of Women Affairs, RDC Associations, and Farmer Unions.

The PPIU functions are to:

- Consolidate district grievance reports and monitor resolution trends.
- Review complex or multi-district grievances that cannot be resolved at the DPIU level.
- Provide technical and legal guidance to districts and communities.
- Coordinate provincial training, awareness campaigns, and information dissemination.
- Compile quarterly safeguard summaries and forward them to the PMU.
- Liaise with EMA and the Provincial Administrator's Office to ensure that grievances with environmental implications are addressed in line with statutory requirements.

The PPIU is also tasked with auditing the effectiveness of community-level committees and facilitating peer learning across districts. It ensures that marginalized groups are adequately represented and that the GRM continues to function inclusively.

4.4 National Project Management Unit (PMU)

The PMU hosts the apex Grievance Redress Committee (GRC) that provides strategic oversight, policy direction, and national coordination. This committee is chaired by the National Project Coordinator and includes the Environmental and Gender Safeguard Specialist, Gender Focal Person, Legal Advisor, and representatives from the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development, EMA, and IFAD's Country Office.

Its key responsibilities include:

- Reviewing escalated grievances that remain unresolved at the provincial level.
- Ensuring that all grievances are addressed in accordance with national laws and donor safeguard standards.
- Conducting periodic field audits to verify the effectiveness of GRM operations at lower levels.
- Coordinating communication with the IFAD and AfDB safeguard units on high-risk or systemic grievances.
- Overseeing the GRM information management system and ensuring timely data collection, analysis, and reporting.
- Providing capacity-building and refresher training across provinces.
- Ensuring integration of grievance data into national monitoring, evaluation, and learning systems.
- Preparing semi-annual and annual grievance performance reports for submission to the Project Steering Committee and funding partners.

The PMU also plays an instrumental role in strategic communication. Summaries of grievances and actions taken are published in project newsletters, websites, and dissemination bulletins. However, personal details of complainants are withheld to preserve confidentiality.

4.5 Independent and External Oversight

For grievances that remain unresolved after national-level deliberations or where complainants allege non-compliance with AfDB or IFAD safeguard policies, an independent recourse mechanism is available. These include:

- **IFAD's Enhanced Complaints Procedure** which allows affected persons to submit a complaint directly to the Office of Audit and Oversight.
- **AfDB's Independent Recourse Mechanism (IRM)** which investigates compliance failures or unaddressed grievances in Bank-financed projects.

The PMU supports complainants by providing guidance on how to access these mechanisms and by ensuring that all necessary documentation is available. It also collaborates with national watchdogs such as the Zimbabwe Human Rights Commission, the Gender Commission, and EMA for cases requiring impartial review.

4.6 Information Flow and Feedback Mechanisms

To maintain coordination and accountability, all levels of the GRM are connected through a centralized reporting chain. The information flow operates vertically with feedback loops:

- **Community to District:** Monthly reports submitted by CGRCs outlining number of grievances, resolution rate, and emerging concerns.

- **District to Provincial:** Monthly summaries capturing progress, pending cases, and patterns of recurrent issues.
- **Provincial to National:** Quarterly reports consolidating data across districts, including lessons learned and recommendations.
- **National to Funding Partners:** Semi-annual and annual consolidated reports submitted to IFAD and AfDB.

Feedback is returned downward through memos, meetings, and review sessions, ensuring that communities are aware of how their concerns have been addressed and what improvements have been made.

4.7 Capacity Building and Institutional Strengthening

Effective operation of the GRM requires continuous capacity enhancement at all levels. The PMU, in collaboration with EMA, IFAD, and AfDB, organizes training sessions focusing on:

- Environmental and social safeguard compliance.
- Conflict resolution and mediation skills.
- Data management and grievance logging.
- GBV/SEAH survivor-centered handling.
- Communication and confidentiality protocols.

Each committee level must have at least one trained focal person responsible for record-keeping and reporting. Annual review workshops are conducted to evaluate performance, share experiences, and update procedures as needed.

A summary of the roles and accountability lines for GRM is presented below

Summary of Roles and Accountability Lines

Level	Composition	Core Responsibilities	Accountability To
Community (CGRC)	7–9 community representatives including women, youth, traditional leaders	Receive, record, and resolve minor grievances; escalate unresolved cases	DPIU
District (DPIU)	AGRITEX, EMA, Social Development, Gender Officers	Mediate complex grievances; coordinate contractors and institutions	PPIU
Provincial (PPIU)	Provincial Agritex, EMA, Social/Gender Specialists	Oversee and harmonize district actions; produce quarterly reports	PMU

National (PMU)	National Project Coordinator, Safeguard Specialists, Legal Advisor	Oversight, reporting, training, escalation to IFAD/AfDB	Project Steering Committee & Donors
External	IFAD Complaints Office, AfDB IRM, National Commissions	Independent review of unresolved grievances	Funding Institutions

This visual aids stakeholders in understanding their position within the grievance-handling chain and reinforces the concept of accountability and inclusivity that underpins the RACP safeguard system.

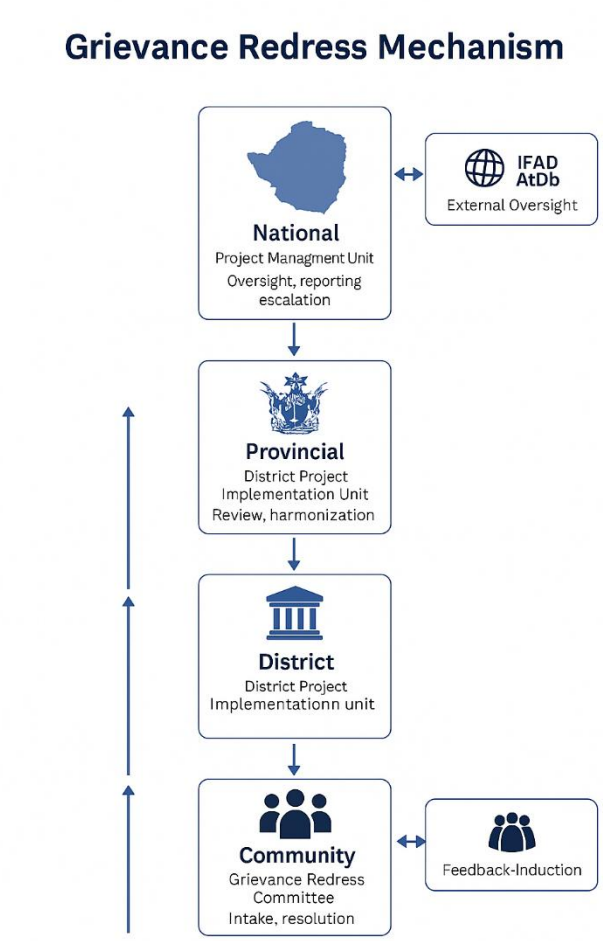
5.0 COMMUNICATION, OUTREACH AND AWARENESS STRATEGY

Effective communication and awareness are the lifeblood of a successful GRM. For the RACP, communication is not simply a procedural step but a deliberate strategy to empower communities, promote transparency, and build confidence in the system. The communication framework ensures that all stakeholders, from smallholder farmers and contractors to local authorities and national agencies, understand their rights, responsibilities, and available channels for redress. It also guarantees that information flows seamlessly between different levels of the GRM, fostering accountability and learning throughout the project.

The communication and outreach strategy is designed to meet five interrelated objectives:

1. To ensure that all project stakeholders are informed about the GRM's purpose, procedures, and benefits in a language and format they understand.
2. To promote inclusive participation and ensure marginalized groups, especially women, youth, persons with disabilities, and vulnerable households, ensuring they can access the mechanism without barriers.
3. To facilitate the prompt submission, acknowledgment, and resolution of grievances through multiple communication channels.
4. To maintain transparency and feedback loops between complainants, implementers, and oversight bodies.
5. To enhance institutional reputation by demonstrating accountability, responsiveness, and social responsibility in line with IFAD, AfDB, and Zimbabwean expectations.

The GRM communication approach is summarised by Figure 3.



GRM Communication Flow

5.1 Communication Principles

The communication approach adheres to four guiding principles that ensure messages are clear, credible, and culturally appropriate:

Clarity and Simplicity: All information must be concise, easy to understand, and free from bureaucratic language. It should be presented in local languages, using relatable examples from agricultural and rural life.

Cultural Sensitivity: The RACP operates across diverse communities in Zimbabwe where language, tradition, and power dynamics vary. Communication materials respect local customs and utilize acceptable channels such as chiefs, headmen, and ward councillors as conveyors of information while ensuring gender and generational inclusivity.

Two-Way Engagement: Communication is not a one-directional broadcast. It must allow for feedback, dialogue, and mutual learning. Community meetings, participatory monitoring

exercises, and field visits offer spaces for open discussion between the project team and stakeholders.

Transparency and Timeliness: Stakeholders are informed of decisions, actions, and progress within agreed timelines. Feedback is given whether a grievance is accepted, under investigation, or resolved.

5.2 Target Audiences

The communication strategy identifies and tailors messaging to different categories of stakeholders, ensuring that information reaches them through the most appropriate means:

- **Primary Audience:** Smallholder farmers, Agricultural Producer Groups (APGs), irrigation scheme members, and local community residents who are directly affected by RACP interventions.
- **Secondary Audience:** Contractors, service providers, labourers, local government officials, extension officers, and non-governmental partners who influence implementation or service delivery.
- **Tertiary Audience:** Provincial and national policy makers, donor representatives (IFAD, AfDB), environmental regulators (EMA), and media institutions that ensure oversight and dissemination of lessons learned.

Each audience receives customized information that matches their level of involvement, capacity, and influence.

5.3 Communication Channels and Tools

Given Zimbabwe's diverse socio-economic and linguistic landscape, the GRM employs multiple communication channels to ensure wide coverage and accessibility. The choice of tools balances formal reporting with informal community-based communication.

Community-Level Channels:

- Village and ward meetings facilitated by local leaders and AGRITEX officers.
- Poster displays and notice boards at irrigation schemes, business units, and markets.
- Information booths during community gatherings, agricultural shows, or training events.
- Suggestion boxes at easily accessible public points such as local councils, cooperative offices, or scheme centers.

- Use of local FM radio stations (in Shona, Ndebele, Tonga, and Nambia) to broadcast GRM procedures, timelines, and success stories.

Digital and Written Channels:

- Hotlines managed at district and PMU level to allow anonymous reporting.
- Dedicated email address and WhatsApp line for written submissions.
- Monthly SMS reminders to farmers and community representatives on reporting processes and updates.
- Simplified brochures and fact sheets distributed through extension officers and contractors.

Visual and Participatory Tools:

- Illustrated posters and infographics depicting step-by-step grievance procedures.
- Pictorial storyboards and theatre performances in communities with low literacy levels.
- Radio dramas and jingles that use humour and storytelling to communicate grievance pathways.
- Farmer Field Schools (FFS) discussions and participatory monitoring sessions incorporating grievance awareness modules.

The combination of these channels ensures that every individual regardless of literacy, gender, or access to technology can report a grievance and receive information about its resolution.

5.4 Key Messaging Themes

All communication efforts are built around consistent messages that reflect the values of accountability, inclusion, and fairness. Core messages include:

- "The RACP listens — your voice matters."
- "Report any concern safely and confidentially."
- "Every complaint will be acknowledged and resolved within clear timelines."
- "The grievance system protects your rights and supports fair development."
- "You can report through your committee, district, or directly via phone, SMS, or email."

Messages are repeated through different channels and contextualized to reflect local challenges such as land disputes, irrigation conflicts, or contractor performance issues.

5.5 Feedback and Reporting

Feedback is a vital part of trust-building. Complainants are regularly informed of their case status using the same channel through which they submitted their grievance. A unique case reference number is assigned to every grievance for easy tracking.

At each level of the mechanism, data on grievances received, resolved, and pending are summarized in monthly reports shared with stakeholders. At the community level, quarterly feedback sessions are organized where committees share anonymized summaries of grievances and how they were addressed. Provincial and national levels consolidate this information into semi-annual reports for submission to the Ministry and funding partners.

Where feasible, visual dashboards are developed to display performance indicators such as:

- Number of grievances received per quarter.
- Percentage resolved within timelines.
- Types and frequency of grievances.
- Geographic distribution of complaints.
- Lessons learned and preventive actions taken.

This information helps the project identify systemic issues for example, recurring land access disputes or contractor negligence and triggers for proactive corrective action.

5.6 Integration with Stakeholder Engagement Plan (SEP)

The communication and awareness strategy for the GRM is fully integrated into the broader SEP. All consultations, meetings, and outreach events under the SEP incorporate a GRM awareness component. Each consultation session begins with a short presentation on how to lodge grievances, confidentiality safeguards, and available support channels. This integration ensures consistency, avoids duplication, and reinforces community ownership of the mechanism.

5.7 Capacity Building in Communication

Capacity building is essential to ensure that all grievance focal persons, field officers, and communication assistants deliver accurate and consistent messages. The PMU, with support from the AfDB and IFAD communication specialists, will conduct regular training workshops covering:

- Effective communication and listening skills.

- Conflict-sensitive language and de-escalation techniques.
- Media engagement and public information management.
- Culturally sensitive communication approaches.
- Digital literacy for SMS, email, and database management.

Continuous mentoring and refresher sessions will maintain quality and consistency across provinces.

5.8 Communication Performance Monitoring

The effectiveness of communication efforts will be assessed using both quantitative and qualitative indicators. Examples include:

- Proportion of stakeholders who are aware of the GRM and can describe its process.
- Number of grievances submitted through various channels (indicating accessibility).
- Participation rates in GRM awareness meetings by gender and age group.
- Response time and satisfaction levels of complainants.
- Feedback from independent audits or supervision missions.

Findings are used to refine the communication strategy and improve future outreach activities.

6.0 COMMUNICATION, OUTREACH AND AWARENESS STRATEGY

Effective communication and awareness are the lifeblood of a successful Grievance Redress Mechanism (GRM). For the Resilience Agriculture Cluster Project (RACP), communication is not simply a procedural step but a deliberate strategy to empower communities, promote transparency, and build confidence in the system. The communication framework ensures that all stakeholders, from smallholder farmers and contractors to local authorities and national agencies to understand their rights, responsibilities, and available channels for redress. It also guarantees that information flows seamlessly between different levels of the GRM, fostering accountability and learning throughout the project.

The communication and outreach strategy is designed to meet five interrelated objectives:

1. To ensure that all project stakeholders are informed about the GRM's purpose, procedures, and benefits in a language and format they understand.
2. To promote inclusive participation and ensure marginalized groups, especially women, youth, persons with disabilities, and vulnerable households can access the mechanism without barriers.

3. To facilitate the prompt submission, acknowledgment, and resolution of grievances through multiple communication channels.
4. To maintain transparency and feedback loops between complainants, implementers, and oversight bodies.
5. To enhance institutional reputation by demonstrating accountability, responsiveness, and social responsibility in line with IFAD, AfDB, and Zimbabwean expectations.

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Two-Way Engagement: Communication is not a one-directional broadcast. It must allow for feedback, dialogue, and mutual learning. Community meetings, participatory monitoring exercises, and field visits offer spaces for open discussion between the project team and stakeholders.

Transparency and Timeliness: Stakeholders are informed of decisions, actions, and progress within agreed timelines. Feedback is given whether a grievance is accepted, under investigation, or resolved.

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- **Tertiary Audience:** Provincial and national policy makers, donor representatives (IFAD, AfDB), environmental regulators (EMA), and media institutions that ensure oversight and dissemination of lessons learned.

Each audience receives customized information that matches their level of involvement, capacity, and influence.

6.3 Communication Channels and Tools

Given Zimbabwe's diverse socio-economic and linguistic landscape, the GRM employs multiple communication channels to ensure wide coverage and accessibility. The choice of tools balances formal reporting with informal community-based communication.

Community-Level Channels:

- Village and ward meetings facilitated by local leaders and AGRITEX officers.
- Poster displays and notice boards at irrigation schemes, business units, and markets.
- Information booths during community gatherings, agricultural shows, or training events.
- Suggestion boxes at easily accessible public points such as local councils, cooperative offices, or scheme centers.
- Use of local FM radio stations (in Shona, Ndebele, Tonga, and other languages) to broadcast GRM procedures, timelines, and success stories.

Digital and Written Channels:

- Toll-free hotlines managed at district and provincial levels to allow anonymous reporting.
- Dedicated email address and WhatsApp line for written submissions.
- Monthly SMS reminders to farmers and community representatives on reporting processes and updates.
- Simplified brochures and fact sheets distributed through extension officers and contractors.

Visual and Participatory Tools:

- Illustrated posters and infographics depicting step-by-step grievance procedures.
- Pictorial storyboards and theatre performances in communities with low literacy levels.

- Radio dramas and jingles that use humor and storytelling to communicate grievance pathways.
- Farmer Field Schools (FFS) discussions and participatory monitoring sessions incorporating grievance awareness modules.

The combination of these channels ensures that every individual, regardless of literacy, gender, or access to technology, can report a grievance and receive information about its resolution.

6.4 Key Messaging Themes

All communication efforts are built around consistent messages that reflect the values of accountability, inclusion, and fairness. Core messages include:

- "The RACP listens — your voice matters."
- "Report any concern safely and confidentially."
- "Every complaint will be acknowledged and resolved within clear timelines."
- "The grievance system protects your rights and supports fair development."
- "You can report through your committee, district, or directly via phone, SMS, or email."

Messages are repeated through different channels and contextualized to reflect local challenges such as land disputes, irrigation conflicts, or contractor performance issues.

6.5 Feedback and Reporting

Feedback is a vital part of trust-building. Complainants are regularly informed of their case status using the same channel through which they submitted their grievance. A unique case reference number is assigned to every grievance for easy tracking.

At each level of the mechanism, data on grievances received, resolved, and pending are summarized in monthly reports shared with stakeholders. At the community level, quarterly feedback sessions are organized where committees share anonymized summaries of grievances and how they were addressed. Provincial and national levels consolidate this information into semi-annual reports for submission to the Ministry and funding partners.

Where feasible, visual dashboards are developed to display performance indicators such as:

- Number of grievances received per quarter.
- Percentage resolved within timelines.
- Types and frequency of grievances.
- Geographic distribution of complaints.
- Lessons learned and preventive actions taken.

This information helps the project identify systemic issues, for example, recurring land access disputes or contractor negligence and encourages proactive corrective action. The feedback setup is presented in Figure 4.

6.6 Integration with Stakeholder Engagement Plan (SEP)

The communication and awareness strategy for the GRM is fully integrated into the broader Stakeholder Engagement Plan (SEP). All consultations, meetings, and outreach events under the SEP incorporate a GRM awareness component. Each consultation session begins with a short presentation on how to lodge grievances, confidentiality safeguards, and available support channels. This integration ensures consistency, avoids duplication, and reinforces community ownership of the mechanism.

6.7 Capacity Building in Communication

Capacity building is essential to ensure that all grievance focal persons, field officers, and communication assistants deliver accurate and consistent messages. The PMU, with support from the AfDB and IFAD communication specialists, will conduct a training workshop covering:

- Effective communication and listening skills.
- Conflict-sensitive language and de-escalation techniques.
- Media engagement and public information management.
- Culturally sensitive communication approaches.
- Digital literacy for SMS, email, and database management.

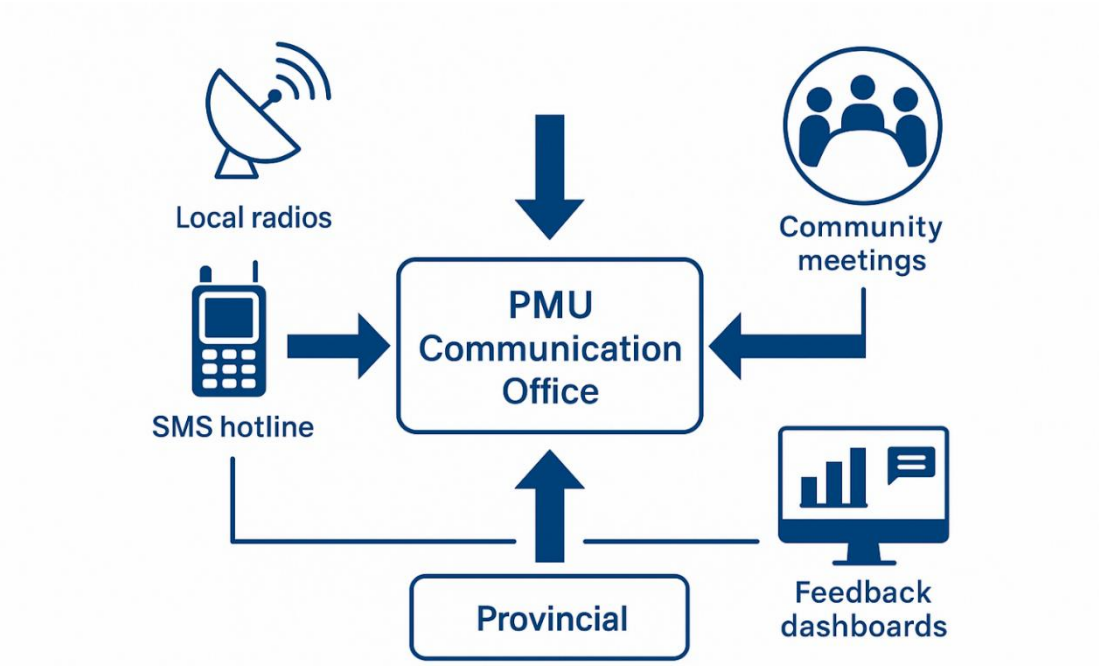
Continuous mentoring and refresher sessions will maintain quality and consistency across provinces.

6.8 Communication Performance Monitoring

The effectiveness of communication efforts will be assessed using both quantitative and qualitative indicators. Examples include:

- Proportion of stakeholders who are aware of the GRM and can describe its process.
- Number of grievances submitted through various channels (indicating accessibility).
- Participation rates in GRM awareness meetings by gender and age group.
- Response time and satisfaction levels of complainants.
- Feedback from independent audits or supervision missions.

Findings are used to refine the communication strategy and improve future outreach activities.



Feedback architecture

Figure 4 will help stakeholders and field officers quickly understand the communication ecosystem and their roles in maintaining transparency and trust within the RACP grievance process.

7.0 GRIEVANCE HANDLING PROCEDURE

The grievance handling procedure is the operational heart of the RACP Grievance Redress Mechanism. It defines the step-by-step process through which grievances are received, assessed, addressed, and closed. The procedure ensures that each concern raised by stakeholders is handled systematically and fairly, with a focus on problem-solving, transparency, and timely communication. It is designed to build confidence in the system, strengthen institutional accountability, and provide early warning for potential environmental or social risks that could affect project performance.

This procedure is fully aligned with the requirements of IFAD's SECAP (2021), AfDB's Integrated Safeguards System (ISS 2023), and Zimbabwe's Environmental Management Act [Chapter 20:27]. It also reflects the ethical principles of fairness, non-discrimination, and respect for human rights as outlined under the UN Guiding Principles on Business and Human Rights.

7.1 Step-by-Step Grievance Handling Process

The RACP grievance handling process follows an eight-step framework that ensures traceability, predictability, and fairness. Each step is monitored through an electronic and paper-based log to allow accurate reporting and verification (Figure 5).

Step 1: Grievance Uptake

Any person, group, or institution affected by the project can submit a grievance at any stage of project implementation. Grievances may be submitted orally or in writing through any of the following channels:

- Community grievance boxes, local offices, or project field officers.
- SMS or WhatsApp hotlines.
- Direct submission to the District or Provincial Project Implementation Unit.
- Email or written letter to the Project Management Unit (PMU).
- During community consultation meetings or stakeholder forums.

No fee is charged, and grievances can be submitted anonymously if preferred. Where literacy barriers exist, project staff assist in documenting complaints accurately without altering meaning.

Step 2: Registration and Acknowledgment

Upon receipt, the grievance is entered into the Grievance Register at the level where it was received. Each grievance is assigned a unique reference number and recorded with essential details including the date, complainant (if disclosed), nature of issue, location, and channel of submission.

Acknowledgment is provided to the complainant within **five working days**, either verbally, by SMS, or in writing. This acknowledgment confirms receipt, provides the reference number, and outlines the next steps including estimated timelines for resolution.

Step 3: Screening and Categorization

The grievance is screened to determine its eligibility, seriousness, and whether it falls within the project's scope. Screening also helps categorize grievances into one of three levels:

- **Category 1 (Simple)** — Minor issues that can be resolved at community level within 15 days.

- **Category 2 (Moderate)** — Issues requiring investigation or coordination with district or provincial authorities within 30 days.
- **Category 3 (Complex)** — Grievances involving legal, contractual, or multi-stakeholder implications, referred to the PMU for resolution within 60–90 days.

This categorization allows efficient allocation of responsibility and ensures that complaints are not delayed due to lack of clarity on authority.

Step 4: Assessment and Investigation

Once categorized, the responsible committee conducts an investigation. This may include interviews with affected persons, site visits, document reviews, and consultations with technical experts (e.g., engineers, environmental officers, or social specialists).

Investigations must be objective, evidence-based, and concluded within **ten working days** for simple cases and **twenty days** for complex cases. For sensitive grievances such as GBV or SEA, investigations are handled confidentially through trained focal persons and survivors are referred to appropriate service providers while maintaining anonymity and consent.

Step 5: Resolution and Response

Following investigation, the committee formulates an agreed resolution. This may involve corrective action, compensation, technical remediation, community dialogue, or referral to an external institution. The proposed solution must be discussed with the complainant to ensure understanding and acceptance.

Resolutions are documented in the Grievance Register and endorsed by the responsible officer or committee chair. Written or verbal communication of the decision is made within **five working days** of resolution.

Step 6: Implementation of Corrective Action

The responsible implementing agency (contractor, service provider, or project officer) executes the agreed corrective action promptly. The Environmental and Social Safeguards Specialist (s) at PMU level tracks implementation and verifies progress to ensure compliance and avoid recurrence of similar issues.

Step 7: Closure and Feedback

A grievance is closed once corrective actions are completed and verified to the satisfaction of the complainant and relevant authorities. The closure is recorded in the system and confirmed through a signed acknowledgment by the complainant or a representative, except for anonymous cases.

If the complainant remains dissatisfied, the case is escalated to the next institutional level;

(District → Provincial → National → IFAD/AfDB independent review).

Closure reports summarize all actions taken, outcomes achieved, and lessons learned.

Step 8: Monitoring, Reporting, and Learning

All grievances are tracked through the central database managed by the PMU. Periodic analyses are conducted to identify patterns, systemic challenges, or emerging risks. Monthly and quarterly reports are shared with stakeholders and integrated into the project's overall monitoring and evaluation framework.

Key performance indicators include:

- Percentage of grievances acknowledged within 5 days.
- Resolution rate within defined timelines.
- Percentage of complainants satisfied with outcomes.
- Number of recurring grievances and preventive actions implemented.

This continuous learning approach transforms the GRM into a dynamic management tool that improves project quality and fosters social accountability.

7.2 Escalation Mechanism

The escalation process ensures that grievances beyond the capacity of one level are efficiently transferred to the next authority without loss of information or delay.

- **Community to District:** Issues unresolved within 15 days or involving contractors are forwarded to the District Project Implementation Unit.
- **District to Provincial:** Cases requiring technical or multi-district coordination are referred to the PPIU.
- **Provincial to National:** Grievances with policy, legal, or reputational implications are handled by the PMU National GRC.
- **National to External:** If complainants are dissatisfied with the national-level resolution, they may seek redress from the **IFAD Enhanced Complaints Procedure** or the **AfDB Independent Recourse Mechanism**.

Throughout escalation, complainants are informed of progress and expected timeframes. Data is shared electronically using standardized reporting templates.

7.3 Special Handling Procedures for Sensitive Grievances

Certain grievances require special treatment due to their sensitive nature. The GRM recognizes three such categories:

i) **Gender-Based Violence (GBV) and Sexual Exploitation, Abuse, and Harassment (SEAH):**

Handled confidentially through a survivor-centered approach. Trained focal persons ensure privacy, informed consent, and safe referrals to health, psychosocial, or legal support services. Cases are never discussed in open meetings or documented with identifiable details.

ii) **Labour and Occupational Safety Concerns:**

Workers may raise grievances through dedicated labour focal points or site safety committees. Urgent issues, such as unsafe conditions, must be addressed within 24 hours.

iii) **Environmental Emergencies and Pollution Events:**

Incidents such as chemical spills, water contamination, or major land degradation trigger immediate notification to EMA and the PMU within 48 hours, followed by an investigation and remediation plan.

7.4 Documentation and Information Management

All grievances are recorded in both physical and digital formats using a standardized **Grievance Log Templates** that captures:

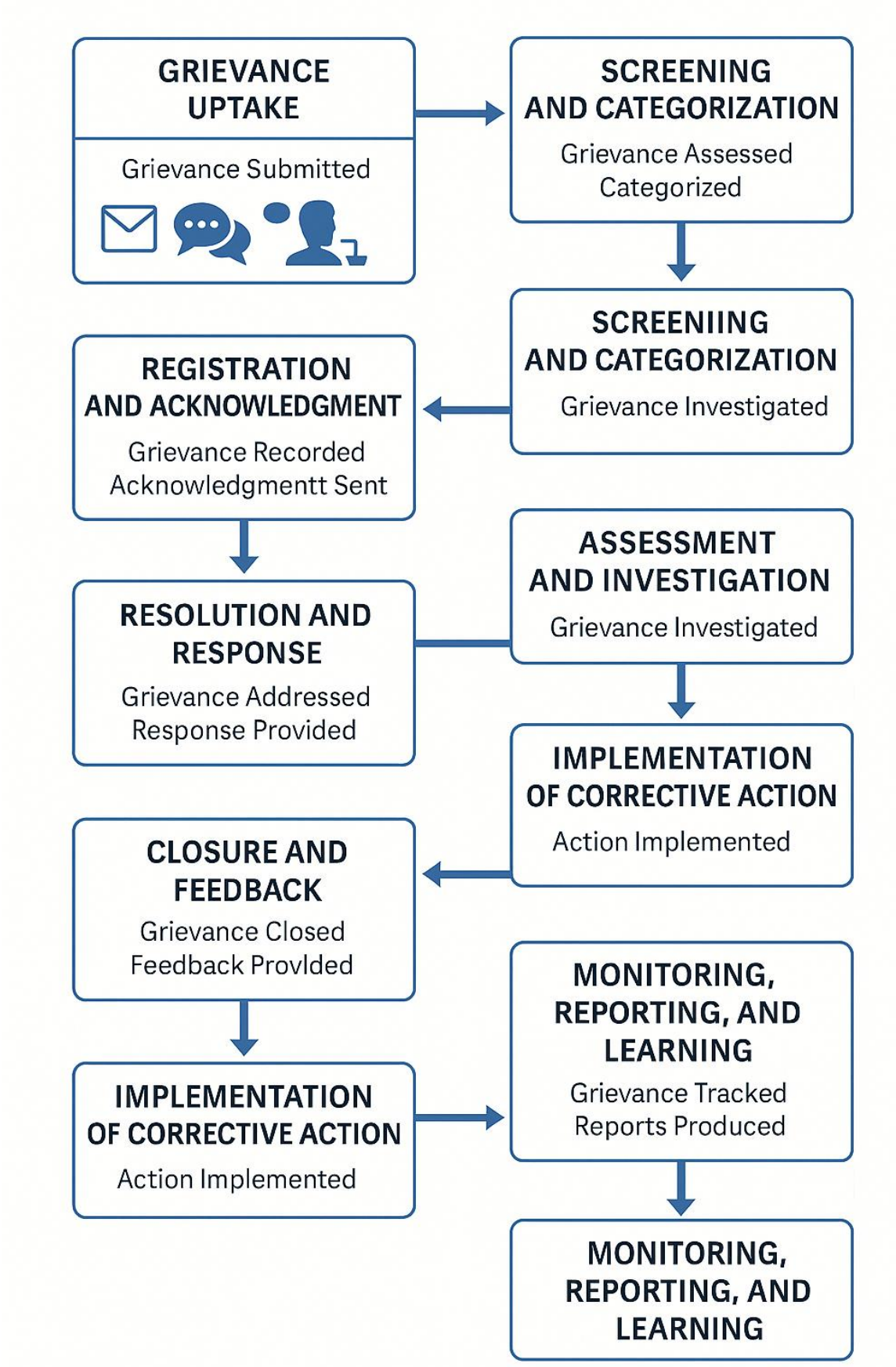
- Date of receipt and registration number.
- Description of grievance and category.
- Responsible level or officer.
- Actions taken and timeline.
- Outcome and status (open, in progress, closed).

The structure of the documents to be used when receiving the grievances are given in Appendix 1 and upon resolving a grievance Appendix 2 is the close out form.

The record system, managed at the PMU, ensures real-time tracking and easy retrieval for audits, reviews, and reporting. Confidential data is protected, and sensitive cases are coded without personal identifiers.

7.5 Institutional Accountability and Oversight

Each committee level reports upward through a structured accountability chain. The PMU's Safeguards Team verifies data consistency, ensures compliance with timelines, and validates closure of cases. The Project Steering Committee reviews quarterly summaries to assess systemic issues and corrective measures. External evaluations by IFAD and AfDB missions include random checks on grievance records to assess transparency and performance.



Steps of the grievance handling cycle

8.0 ACCESS CHANNELS

An effective Grievance Redress Mechanination must provide multiple, low-cost, culturally appropriate, and disability-inclusive channels through which any stakeholder can submit concerns. All access channels must be free, accessible to remote and marginalized communities, and adaptable to varying literacy levels. The channels described here meet the expectations of the AfDB ISS (2023), IFAD SECAP (2021), Zimbabwe's Environmental Management Act, and draw on good practice observed in comparator programmes including the ZAVaCEP GRM.

In-Person Reporting

In-person reporting is the most widely used and culturally familiar engagement method in rural Zimbabwe. Stakeholders can lodge grievances directly with Community Grievance Redress Committees, village heads or local traditional leaders, AGRITEX officers, District Project Implementation Unit Safeguards Officers, or Provincial Safeguards Specialists. This method is ideal for complainants who prefer verbal communication, have limited literacy, or lack mobile devices. Officers receiving complaints must document every submission using standardized GRM Intake Forms.

Community Drop-Boxes

Secure grievance drop-boxes are placed at irrigation scheme pump houses, ward centres, clinics, schools, council offices, and AGRITEX stations. These boxes provide a confidential, anonymous pathway for complainants who may fear stigma, retaliation, or social tension. Drop-boxes are clearly labelled in Shona, Ndebele, and English, and are opened weekly by a designated officer accompanied by a community representative.

Toll-Free Hotline

A national toll-free hotline based at the PMU provides real-time access for urgent grievances such as labour accidents, water contamination, or misconduct by contractors. Hotline attendants are trained to communicate in multiple local languages, including Shona, Ndebele, Tonga, Venda, and English. After-hours messages are recorded with a guaranteed call-back within the next working day. This channel is particularly important for women, youth, and workers who require discreet reporting.

SMS and WhatsApp Messaging

SMS and WhatsApp are widely used across Zimbabwe and offer low-cost, convenient options for rapid reporting. Complainants can submit text messages, photographs, voice notes, or location pins. These channels support anonymous reporting, and they are accessible to persons with disabilities, including those with hearing impairments who may prefer text-based reporting.

Email Submissions

Email reporting is available at district, provincial, and national levels and is suitable for NGOs, contractors, district officials, agribusiness partners, and individuals with internet access. Dedicated GRM email addresses ensure that submissions are received by trained officers who follow the standard operating procedures. Email reporting aligns with national EMA procedures, which accept written or digital submissions as valid complaint pathways.

Web-Based Submission

A user-friendly online GRM form is hosted on the project's website and allows for detailed submissions, including attachments such as photos, audio recordings, and documents. Online submissions feed directly into the central GRM database, triggering automatic acknowledgment. This channel enhances transparency and allows stakeholders to track the status of their submissions when they choose to provide contact information.

Community Focal Points

Each ward and irrigation scheme nominates trained GRM focal persons representing women, youth, leadership structures, persons with disabilities, and AGRITEX extension services. These individuals support complainants in completing forms, capturing verbal grievances, and referring sensitive issues to appropriate authorities. They are essential for ensuring access for people with limited mobility, low literacy, or social vulnerabilities. GBV and SEAH focal points handle sensitive disclosures confidentially and provide safe referrals.

Engagement through Traditional and Customary Structures

Zimbabwe's customary institutions remain important channels for communication and dispute resolution. Village heads, headmen, and chiefs are respected entry points for local grievances. While the GRM does not rely on traditional structures to resolve all issues, it recognizes their legitimacy and integrates them into early-warning systems, community engagement, and non-

sensitive dispute facilitation. Sensitive cases such as GBV or criminal matters are not handled through customary pathways and must be referred to formal institutions.

Special Accessibility Measures

The GRM ensures inclusion of persons with disabilities through sign-language support during district-level reporting, voice-note submission options, large-print materials, and accessible drop-box placement. For persons with low literacy, the mechanism accepts oral submissions, uses visual posters, and relies on focal persons for documentation support. Linguistic inclusion is achieved through translation of materials and hotlines into local languages. Remote communities benefit from mobile GRM outreach activities conducted during agricultural extension visits, VBU meetings, ward assemblies, and irrigation rehabilitation supervision missions.

Zero-Cost Principle

All channels are designed to be free to complainants. Toll-free numbers, free WhatsApp and SMS bundles during awareness drives, and cost-free access to offices remove financial barriers. No complainant pays to lodge, follow up, or receive feedback on a grievance. Meetings convened to address grievances are held in neutral, accessible local venues without cost to participants.

Confidential and Anonymous Reporting

The project guarantees that anyone can report a grievance anonymously via drop-boxes, SMS, WhatsApp, or web forms. Confidential reporting is available for sensitive issues, especially GBV and SEAH. Only designated officers access such cases, and all information is handled following strict confidentiality protocols. No complainant is required to reveal personal identity unless they choose to do so.

9.0 GRIEVANCE TRACKING, MONITORING AND REPORTING SYSTEM

An effective GRM relies not only on sound procedures but also on a robust monitoring and reporting framework that ensures every grievance is tracked, analysed, and used to inform decision-making. For the Resilience Agriculture Cluster Project (RACP), grievance tracking, monitoring, and reporting serve as the backbone of accountability, allowing project implementers, funders, and communities to evaluate how well the system performs in resolving disputes and preventing recurrence.

This section describes how the RACP will systematically capture, manage, and analyse grievance data from all levels of implementation, community, district, provincial, and national, and how such information will contribute to adaptive management, transparency, and compliance with IFAD, AfDB, and national safeguard frameworks.

9.1 Purpose of the Monitoring and Reporting System

The monitoring and reporting framework ensures that:

- All grievances are recorded, tracked, and closed transparently within defined timelines.
- Project implementers can identify patterns or recurring issues that require structural corrective actions.
- Communities remain informed about how their concerns are addressed, thereby maintaining trust and participation.
- IFAD and AfDB are regularly updated on safeguard compliance and effectiveness of redress actions.
- Lessons learned are systematically integrated into project planning, risk management, and policy improvement.

9.2 Core Components of the GRM Tracking System

The RACP grievance monitoring system operates through four interlinked components; **data collection**, **data storage**, **data analysis**, and **reporting and feedback,** all managed under the PMU's Environmental and Social Safeguards Unit.

(a) Data Collection

Each level of the GRM Community Grievance Redress Committees (CGRCs), District Project Implementation Units (DPIUs), Provincial Project Implementation Units (PPIUs), and the PMU, collects data using standardized templates. Data sources include:

- Grievance registers (paper-based and digital).
- Feedback forms from complainants.
- Meeting minutes and field investigation reports.
- SMS, hotline, and email submissions.
- Monthly progress updates from committees.

Field officers and focal persons are responsible for entering data weekly, ensuring that even remote communities with limited digital access are captured through manual reporting systems.

(b) Data Storage

All grievances are consolidated into a central digital **Grievance Management Database** housed at the PMU and backed up through cloud storage. This database captures essential fields such as:

- Unique grievance reference number.
- Complainant demographics (where provided).
- Issue category and severity.
- Actions taken and status updates.
- Date of resolution and responsible officer.
- Verification notes and feedback received.
- Sensitive or confidential cases (e.g., GBV/SEAH) are coded to restrict access and preserve anonymity.

(c) Data Analysis

Data analysis is carried out monthly and quarterly to identify trends, recurring issues, geographic hotspots, and response times. Analysis includes:

- Thematic mapping of grievances by type (environmental, social, labour, gender-based, etc.).
- Trend charts showing grievance frequency over time.
- Cross-tabulation of resolution rate by level (community, district, provincial).
- Identification of systemic issues requiring policy or operational adjustment.
- Visual dashboards (see infographic recommendation below) are produced to present this information in an accessible, evidence-based format.

(d) Reporting and Feedback

Reports are generated at four levels; monthly (community and district), quarterly (provincial), and semi-annually (national). The PMU consolidates all data into comprehensive safeguard reports submitted to IFAD, AfDB, and the Project Steering Committee. Summaries of grievances and their resolution outcomes are also shared with stakeholders through community notice boards, radio updates, and stakeholder review meetings.

9.3 Performance Indicators for GRM Monitoring

To measure the effectiveness of grievance management, the following key performance indicators (KPIs) as shown in Table 3 are applied across all levels.

Performance Indicators

Indicator	Description	Frequency	Target/Benchmark
Timeliness of acknowledgment	% of grievances acknowledged within 5 working days	Monthly	≥ 90%
Timeliness of resolution	% of grievances resolved within prescribed timeframe	Monthly	≥ 80%
Complainant satisfaction	% of complainants satisfied with the resolution outcome	Quarterly	≥ 75%
Grievance recurrence	% of grievances recurring within 6 months	Quarterly	≤ 10%
Gender and vulnerability inclusion	% of grievances lodged by women/youth/vulnerable groups	Quarterly	≥ 40%
GBV/SEAH case confidentiality	% of sensitive cases handled with full confidentiality and referral	Quarterly	100%
Transparency in reporting	Frequency of public disclosure of grievance summaries	Semi-annual	Twice yearly

These indicators will be reviewed annually and adjusted based on emerging risks or lessons learned.

9.4 Roles and Responsibilities in Monitoring

- **Community Grievance Redress Committees (CGRCs):** Collect data at the grassroots level, maintain registers, and submit monthly summaries to the DPIU.
- **District Project Implementation Units (DPIUs):** Verify community data, ensure completeness, and prepare district-level monthly summaries for the PPIU.
- **Provincial Project Implementation Units (PPIUs):** Consolidate district data, conduct data quality assessments, and submit quarterly summaries to the PMU.

- **Project Management Unit (PMU):** Manage the centralized database, perform trend analysis, and produce semi-annual and annual reports for IFAD, AfDB, and the Ministry.
- **Environmental Management Agency (EMA):** Provide external validation of environmental grievance responses and verify field remediation actions.
- **Funding Partners (IFAD/AfDB):** Review consolidated reports, provide oversight, and recommend strategic improvements.

9.5 Data Quality Assurance and Verification

To maintain integrity and reliability of grievance data, a three-tier quality assurance system is implemented:

1. **First-Level Verification:** Conducted at district level by safeguards focal persons before data submission.
2. **Second-Level Verification:** Provincial safeguards specialists check consistency, completeness, and timeliness of records.
3. **Third-Level Verification:** PMU reviews data for anomalies, cross-verifies with field observations, and validates with complainants where necessary.

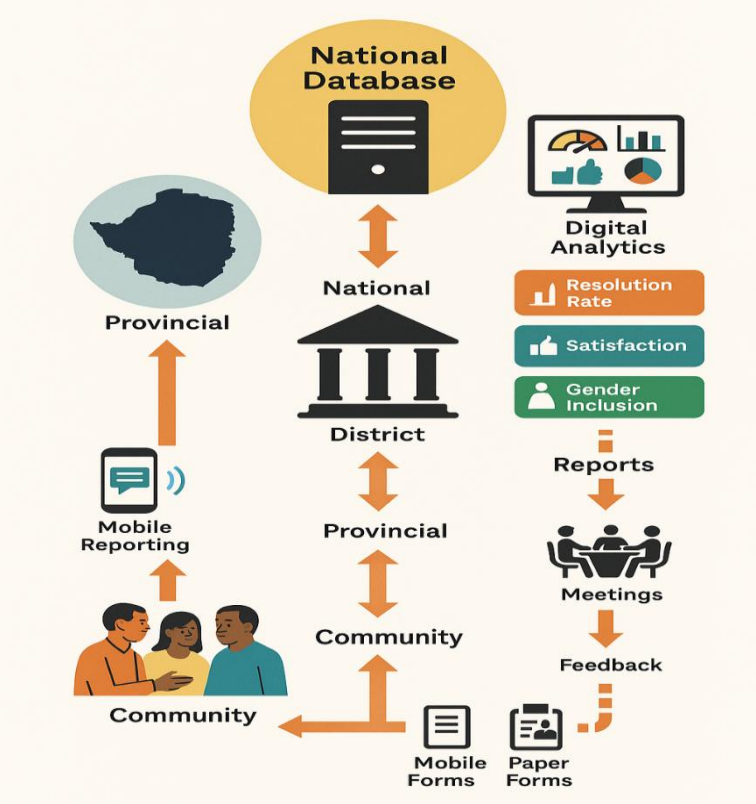
Independent audits and supervision missions by IFAD and AfDB may also review a sample of grievances to verify accuracy and fairness in reporting.

9.6 Reporting Formats and Frequency

Each level of the mechanism uses standardized templates to ensure uniformity in reporting.

- **Monthly Reports:** Prepared by CGRCs and DPIUs summarizing grievance numbers, resolutions, and pending cases.
- **Quarterly Reports:** Prepared by PPIUs consolidating district-level data, highlighting trends and challenges.
- **Semi-Annual Reports:** Compiled by PMU for submission to funding partners, incorporating analytical dashboards and corrective actions.
- **Annual Reports:** Integrate GRM findings into the project's Environmental and Social Performance Report and include recommendations for systemic improvements.

Summaries are presented both numerically and visually, enabling stakeholders to assess progress at a glance as shown in Figure 6.



GRM reporting paths

9.7 Feedback and Learning Mechanisms

The RACP GRM promotes learning by systematically feeding grievance data back into management decisions. This is achieved through:

- **Quarterly Reflection Meetings:** Held at provincial level to discuss patterns and identify policy-level solutions.
- **Annual Safeguard Review Workshops:** Bringing together all implementing partners to review grievance performance and share best practices.
- **Community Feedback Forums:** Conducted biannually to close the loop by informing communities about how their feedback has influenced project improvements.
- **Adaptive Management Integration:** Lessons from grievance monitoring are integrated into ESMP revisions, contractor performance evaluations, and future safeguard planning.

9.8 Transparency and Public Disclosure

The project commits to full transparency in reporting grievance outcomes. Public disclosure takes place through:

- Community notice boards displaying non-confidential summaries.
- Project newsletters and websites with anonymized data.

- Provincial review meetings with key stakeholders.
- Annual disclosure to IFAD, AfDB, and the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development.

This ensures communities are not only informed but also empowered to hold the project accountable.

10. REPORTING AND DISCLOSURE

A well-functioning GRM depends on systematic, transparent, and accountable reporting practices. Reporting is both an internal management tool and an external accountability obligation to communities, stakeholders, and development partners. The RACP GRM adopts robust mechanisms for internal reporting, public disclosure, and feedback to ensure that information flows efficiently across all levels of implementation and that stakeholders remain informed of grievance outcomes and system improvements. These systems adhere to AfDB and IFAD requirements on transparency, accessibility, and meaningful stakeholder participation.

Internal Reporting

Internal reporting is structured to provide timely insights into grievance trends, response efficiency, and emerging risks. Reporting begins at community level and flows upward through district and provincial structures to the national Project Management Unit.

Monthly reporting

Community Grievance Redress Committees and District Safeguards Officers compile monthly summaries capturing the number of grievances received, categorization by type, status of investigations, corrective actions taken, and unresolved cases. These are submitted to the Provincial Project Implementation Unit Safeguards Specialists for consolidation.

Quarterly reporting

Provincial Safeguards Teams prepare quarterly analytical reports synthesizing trends across districts, resolution times, recurring hotspots, sensitive cases, system gaps, and good practices. These reports are shared with the PMU and feed into RACP's quarterly implementation review meetings, risk assessments, and safeguard performance dashboards.

Semi-annual and annual reporting

The PMU produces semi-annual and annual consolidated GRM performance reports for decision-making at Steering Committee level. These reports inform contractor performance assessments, ESMP compliance audits, supervision missions, and annual work plan and budget (AWPB) adjustments. The annual report includes a detailed learning and improvement section describing system adjustments, capacity strengthening, and changes in grievance patterns.

Reporting templates are standardized across all levels to ensure consistency in formats, definitions, and data fields, enabling seamless aggregation and comparative analysis across provinces.

External Reporting

External reporting promotes transparency, reinforces trust in the mechanism, and ensures compliance with international safeguard obligations. Information disclosed publicly is always aggregated to protect privacy and confidentiality.

Public disclosure to communities

Summaries of grievances received, status of resolutions, and improvements made are shared with communities during ward meetings, irrigation scheme assemblies, VBU gatherings, and project sensitization events. These summaries avoid identifying individuals and focus on categories, trends, and lessons.

Disclosure through project communication platforms

The PMU publishes quarterly grievance summaries on the project's digital platforms, including the official website and noticeboards at district and provincial offices. The summaries include the number of grievances received, resolved, pending, and referred to external institutions, alongside key actions taken.

Reporting to development partners

IFAD and AfDB receive consolidated safeguard and GRM reports semi-annually and annually. These reports detail compliance with ISS and SECAP standards, analysis of persistent risks, actions taken to address systemic issues, and cases escalated to national regulators or donor accountability mechanisms. Sensitive grievances, especially GBV/SEAH, are reported in coded form in line with survivor-centered standards.

Regulator and local authority reporting

Where complaints relate to environmental or labour violations, summaries of actions taken are shared with EMA, Labour Inspectorate, Rural District Councils, and other statutory bodies as part of interagency coordination and legal compliance.

Feedback Loop

The feedback loop is central to the legitimacy and credibility of the GRM. It ensures that complainants and their communities receive timely, respectful, and accurate information about the status and outcome of grievances. It also strengthens accountability by demonstrating that project management is responsive to concerns raised.

Feedback to complainants

All complainants receive acknowledgment within the established timeline through their preferred communication channel. Updates on progress are provided throughout the resolution process. When a grievance is resolved, the outcome is communicated clearly, including any corrective actions taken and the expected timeline for implementation. Complainants are encouraged to provide a satisfaction assessment before closure.

Feedback to communities and local structures

Communities receive periodic updates summarizing grievances, thematic issues, completed corrective actions, and system improvements. These updates are provided during public meetings and through noticeboard postings, radio announcements, and local information channels. Visual summaries and infographics are used to aid understanding for low-literacy groups.

Institutional feedback into project improvement

Grievance patterns and findings feed directly into adjustments to ESMP implementation, contractor oversight, environmental monitoring, and stakeholder engagement activities. Lessons identified through monthly and quarterly reports are integrated into training sessions, policy updates, and community outreach activities. This ensures that the GRM acts not only as a problem-solving tool but as a catalyst for continuous improvement.

Verification and follow-through

After corrective actions are completed, the PMU and district safeguards teams verify implementation on the ground. Follow-up visits or calls are made to respondents and

community members to confirm the effectiveness of the resolution. This final verification closes the accountability loop and strengthens public trust.

10.0 CAPACITY BUILDING

The success of the GRM for the RACP depends heavily on the competence, awareness, and coordination capacity of all stakeholders involved in grievance management. This section outlines the structured approach to capacity building and continuous improvement aimed at ensuring that grievance handling is professional, consistent, and responsive at all levels, from community committees to the PMU.

Capacity building under the GRM is not a one-time activity but a continuous process integrated into the broader Environmental and Social Safeguards (ESS) strengthening agenda of the RACP. It aligns with the AfDB's Integrated Safeguards System (ISS 2023), IFAD's SECAP (2021) provisions on institutional capacity enhancement, and Zimbabwe's National Environmental Education and Communication Strategy (2017–2030).

Purpose and Objectives of Capacity Building

The overarching purpose of this capacity-building framework is to institutionalise effective grievance handling by equipping project personnel, local authorities, contractors, and community representatives with the necessary knowledge, skills, and attitudes. The specific objectives are:

1. To strengthen understanding of GRM principles, procedures, and institutional responsibilities at all implementation levels.
2. To enhance the ability of committees and focal persons to manage grievances in line with IFAD, AfDB, and national standards.
3. To promote a culture of accountability, transparency, and rights-based communication among project stakeholders.
4. To build technical capacity for managing sensitive cases such as GBV/SEAH, labour grievances, and environmental incidents.
5. To create mechanisms for peer learning, reflection, and continuous improvement through knowledge exchange.

10.1 Capacity Needs Assessment

Prior to the roll-out of training programmes, a structured **capacity needs assessment (CNA)** will be conducted in all provinces covered by the RACP. This assessment will identify:

- Existing knowledge gaps on grievance redress and safeguards.
- Level of awareness among communities, contractors, and district officers.
- Resource needs, such as communication materials, digital tools, or transport.
- Institutional coordination gaps that hinder timely grievance resolution.

The findings from the CNA will guide the design of tailored training modules and inform annual safeguard work plans.

10.2 Target Groups and Training Tiers

The training programme will be tiered to ensure that each stakeholder group receives content relevant to their functions (**Table 4**).

Training Groups

Target Group	Training Focus Areas	Facilitator/Lead Institution
Community Grievance Redress Committees (CGRCs)	Grievance recording, mediation, confidentiality, communication skills, GBV referral	District Safeguards Team (ToT)
District Project Implementation Units (DPIUs)	Case management, investigation techniques, coordination with contractors, data logging	Provincial Safeguards Specialists
Provincial Project Implementation Units (PPIUs)	Monitoring, data quality control, reporting formats, escalation protocols	PMU Safeguards Specialists
Project Management Unit (PMU) Staff	Oversight, data analytics, performance evaluation, adaptive management	IFAD/AfDB Safeguards Experts
Contractors and Service Providers	Labour grievance handling, OHS, community engagement, incident response	All Safeguard teams at various levels
Traditional Leaders and Local Councils	Community sensitisation, dispute mediation, social inclusion	RDCs, Ministry of Local Government, All Safeguard teams at various levels
Women, Youth, and Vulnerable Groups	Rights awareness, safe reporting channels, participation in GRM structures	PMU Gender and Social Inclusion Unit

10.3 Training Modules and Methodology

Training will be delivered through a blend of participatory and practical methods to ensure deep understanding and retention. The modules will cover:

1. **Introduction to the GRM:** Objectives, guiding principles, and institutional arrangements.
2. **Grievance Handling Procedures:** Step-by-step process from receipt to closure.
3. **Data Management and Reporting:** Use of grievance logs, forms, and the digital database.
4. **Communication and Awareness Techniques:** How to communicate grievance information clearly and inclusively.
5. **Conflict Resolution and Mediation:** Techniques for negotiation and peacebuilding in community settings.
6. **Gender-Based Violence (GBV) and SEAH Handling:** Survivor-centered approaches, confidentiality, and referral mechanisms.
7. **Environmental and Labour Grievances:** Technical response procedures, safety standards, and coordination with EMA.
8. **Monitoring and Learning:** Use of performance indicators to assess effectiveness.

Training will combine classroom sessions, case study discussions, role plays, field demonstrations, and simulations of grievance resolution meetings. Materials will be translated into Shona, Ndebele, and Tonga for regional applicability.

10.4 Frequency and Duration of Capacity Building Activities

The training programme will follow a structured schedule embedded in the project's annual work plan:

- **Induction Training:** Conducted at project inception for all focal persons and committee members.
- **Refresher Workshops:** To address emerging challenges and policy updates.
- **Annual Review and Learning Conferences:** National-level events to share results, innovations, and lessons across provinces.
- **On-the-Job Coaching and Mentorship:** Continuous mentorship by the PMU safeguards team through field visits.

Training frequency is guided by issues arising post induction critical to project phases such as irrigation construction or rehabilitation periods when grievances are most likely to arise.

10.5 Knowledge Management and Institutional Partnerships

The RACP promotes a culture of peer learning and knowledge exchange. Mechanisms include:

- **Experience-Sharing Forums:** Bringing together representatives from different provinces to share best practices and challenges.
- **Digital Knowledge Hub:** Hosting tools, templates, and success stories accessible to all project staff.
- **Learning Briefs and Newsletters:** Publications highlighting grievance trends, innovations, and human-interest stories.
- **South–South Exchange:** Collaboration with other IFAD- and AfDB-supported programmes in the region to learn from regional GRM models.

The project will collaborate with specialised institutions to deliver high-quality training and technical support, including:

- **Environmental Management Agency (EMA):** Technical training on environmental grievance response and reporting.
- **Ministry of Public Service, Labour and Social Welfare and NSSA:** Guidance on labour grievance and OHS compliance.
- **Zimbabwe Gender Commission and Victim Friendly Units:** Support for GBV/SEAH case management and survivor protection.
- **Universities:** Integration of environmental and social grievance case studies into local training curricula.
- **UN Agencies and Development Partners (UNDP, ILO, FAO):** Provision of technical inputs and resource materials on grievance redress best practices.

10.6 Frameworks and Indicators

Continuous improvement: It is built into the RACP GRM to ensure relevance, effectiveness, and alignment with evolving national and international standards. The following measures support this adaptive management approach:

1. **Annual Performance Reviews:** Assess GRM indicators, training effectiveness, and stakeholder feedback.
2. **Periodic Revision of Manuals:** Update operational guidelines and templates to reflect lessons learned.
3. **Integration with Safeguards Monitoring:** Use grievance data to inform broader environmental and social management improvements.

4. **Feedback Loops:** Encourage communities to evaluate the effectiveness of the GRM during review sessions.
5. **External Evaluations:** Commissioned midterm and endline evaluations by independent experts to assess performance and recommend refinements.

Monitoring: The Safeguards Specialists at the PMU works closely with the M&E Unit to ensure:

- Harmonised data collection and reporting templates.
- Consistent timeframes for quarterly and annual reporting.
- Integration of grievance indicators into the project's Results Framework.
- Automated data exchange between the GRM database and the M&E dashboard.

This integration ensures that grievance-related insights inform overall project management, resource allocation, and stakeholder engagement strategies. Table 5 presents a simplified monitoring table for key performance areas (KPA).

Monitoring Indicators

KPA	Monitoring Focus	Indicators	Verification
Accessibility	Extent to which stakeholders can access the GRM	% of project areas with functional grievance points; # of communication materials distributed	Field reports, awareness campaign logs
Efficiency	Timeliness and completeness of grievance handling	% of grievances acknowledged and resolved within timeline; average days to resolution	GRM database reports, case files
Fairness & Equity	Level of impartiality and inclusiveness	% of grievances resolved through dialogue or mediation; representation of women and youth in committees	Meeting minutes, committee membership lists
Accountability	Level of transparency and reporting	Frequency of grievance summaries shared publicly; number of quarterly reports submitted	Project bulletins, published reports
Learning & Adaptation	Extent of institutional learning and improvement	Number of lessons integrated into project design; revisions to GRM procedures	Annual safeguard review reports

Data Collection and Flow

The Monitoring, Evaluation, and Learning (MEL) process follows a bottom-up data collection approach, ensuring accuracy and ownership at every stage:

- **Community Level:** CGRCs record grievances in local registers and compile monthly summaries.
- **District Level:** DPIUs review and verify data for completeness and consistency.
- **Provincial Level:** PPIUs consolidate district summaries and analyse trends quarterly.

- **National Level:** The PMU aggregates all data into the central GRM database, generating dashboards and reports.

Data verification occurs at each stage to prevent duplication or underreporting. The system integrates both quantitative metrics (e.g., number of cases resolved) and qualitative insights (e.g., satisfaction levels, case narratives).

Digital tools may be employed for efficient data capture and visualisation, supported by periodic manual updates from field officers in low-connectivity areas.

Evaluation Mechanisms

Evaluation of the GRM is undertaken at two levels:

(a) Internal Evaluation – Conducted by the PMU's Safeguards and M&E teams quarterly and annually. The focus is on:

- Assessing compliance with timelines and procedures.
- Measuring performance against KPIs.
- Evaluating the consistency of grievance resolutions across provinces.
- Identifying emerging risk patterns (e.g., land conflicts, contractor grievances).

(b) External Evaluation – Commissioned at mid-term and project completion stages. Independent experts or partner institutions (such as EMA or a local university) conduct impartial reviews to:

- Evaluate effectiveness and fairness.
- Verify community perceptions of the GRM's legitimacy.
- Provide recommendations for policy or procedural reforms.

Findings from both internal and external evaluations are discussed in the Project Steering Committee and incorporated into management decisions.

Learning and Adaptation Processes

Learning under the GRM MEL framework is cyclical and participatory. It moves beyond reporting to ensure that data drives tangible improvements.

1. **Reflection Sessions:** Review meetings held at provincial and national levels bring together Safeguards Specialists, M&E Officers, and committee representatives to reflect on trends and share solutions.
2. **Learning Notes and Case Studies:** Documenting specific grievance cases that led to positive change (e.g., improved irrigation water scheduling, equitable compensation models).
3. **Feedback to Communities:** Biannual community feedback sessions report on how grievances influenced project decisions and resource allocation.
4. **Adaptive Management:** Revision of ESMPs, contractor contracts, and operational guidelines based on grievance trends.
5. **Knowledge Exchange:** Sharing insights with other IFAD- and AfDB-funded projects in Zimbabwe to promote harmonized safeguard practices.

Roles and Responsibilities in GRM MEL Implementation

- **Community Committees (CGRCs):** Collect and submit primary grievance data; track resolution outcomes.
- **DPIUs:** Validate and analyse data at district level; ensure timely upward reporting.
- **PPIUs:** Synthesize district data, identify trends, and coordinate quarterly review sessions.
- **PMU Safeguards and M&E Unit:** Maintain database, conduct performance analyses, and generate consolidated reports.
- **Project Steering Committee:** Review evaluation findings and guide policy reform.
- **Funding Partners (IFAD, AfDB):** Provide technical oversight and review semi-annual safeguard performance reports.
- **Independent Evaluators:** Conduct mid-term and terminal assessments.

Each institution has defined reporting obligations to avoid overlaps and ensure accountability.

A summary of the reporting setup for GRM is presented in **Table 6**.

Reporting Framework and Frequency

Report Type	Prepared By	Frequency	Content	Recipient
Monthly Summary	CGRC / DPIU	Monthly	Number of grievances, status, resolutions	PPIU
Quarterly Performance Report	PPIU	Quarterly	Trends, corrective actions, stakeholder feedback	PMU

Report Type	Prepared By	Frequency	Content	Recipient
Semi-Annual Safeguard Report	PMU	Bi-Annual	Consolidated grievance performance, lessons learned	IFAD / AfDB
Annual Review Report	PMU / Steering Committee	Annual	Impact evaluation, adaptive management updates	Government & Donors
Midterm & Endline Evaluation	Independent Experts	Once per project phase	Effectiveness, equity, and sustainability review	Steering Committee, IFAD, AfDB

All reports must include disaggregated data (by gender, age, location) and highlight cases that influenced project redesign or policy reforms.

Performance Review and Accountability Mechanisms

Performance dashboards are developed using visual analytics tools that summarise key grievance indicators at national and provincial levels. These dashboards support:

- Transparent discussion in stakeholder meetings.
- Real-time tracking of grievance handling speed.
- Early identification of provinces or contractors with recurring issues.

Accountability is reinforced through performance-linked feedback: provinces or contractors with exemplary grievance management practices are recognized during annual review workshops, while underperforming units receive targeted technical support and supervision.

Continuous Improvement and Institutional Learning Pathway

The RACP GRM operates under a philosophy of *learning by doing*. Continuous improvement is institutionalised through the following processes:

1. Integration of grievance analysis into annual planning and budgeting cycles.
2. Systematic updating of operational manuals to reflect emerging issues.
3. Joint IFAD–AfDB–Government supervision missions that review performance metrics and recommend improvements.
4. Annual "Safeguards Innovation Awards" recognising local committees or officers who demonstrate outstanding responsiveness.

5. Development of a Live GRM Toolkit, which is a digital and printed compendium of updated forms, case studies, and guidelines accessible to all implementing agencies.

11.0 INTEGRATION WITH NATIONAL SYSTEMS AND EXTERNAL RECOURSE

The RACP GRM operates alongside and in support of Zimbabwe's statutory systems. It complements rather than replaces legal, administrative, or customary routes. This integration ensures that complainants retain the right to seek justice through national institutions and, when appropriate, through development partner recourse mechanisms.

The mechanism recognises and works with the EMA for environmental offences, the Ministry of Public Service Labour and Social Welfare, and NSSA for labour grievances, the Zimbabwe Gender Commission and Victim Friendly Units for GBV and SEAH cases, Rural District Councils and District Development Coordinator (DDC) for local administration matters, and the civil courts for judicial resolution. The Project Management Unit maintains a directory of focal contacts within these institutions to streamline referrals and follow-up. Each referral is logged in the project database with a tracking number, expected turnaround time, and the official responsible for liaison.

Escalation to external development partner mechanisms is preserved. Complainants may approach the IFAD Enhanced Complaints Procedure or the AfDB Independent Recourse Mechanism where allegations involve non-compliance with safeguard policies. The Project Management Unit provides information and non-legal guidance to any complainant who requests assistance to access these mechanisms.

To improve coherence the RACP conducts semi-annual coordination meetings with regulators and justice sector representatives. These meetings review anonymised case summaries, identify bottlenecks, and agree on corrective actions that strengthen service delivery and respect for rights. **Table 7** summarises the linkages of the GRM to national and external mechanisms.

National and External Mechanisms Interfaced by the GRM

Mechanism	Mandate for GRM Interface	Typical Triggers	Expected Output	PMU Liaison	Service Standard
Environmental Management Agency	Enforcement of environmental law and permits	Pollution, waste, effluent, land degradation	Inspection record, compliance order, fine or	Environmental Safeguards Specialist	Initial action within 5 working days

Mechanism	Mandate for GRM Interface	Typical Triggers	Expected Output	PMU Liaison	Service Standard
			remediation plan		
Labour Inspectorate	Labour rights and OHS compliance	Wage arrears, unfair dismissal, unsafe conditions	Inspection report, compliance directive	Social Safeguards Specialist	Inspection within 10 working days
Zimbabwe Gender Commission and VFU	GBV and SEAH case management	Any GBV or SEAH allegation	Survivor-centered referral and case handling	GBV/SEAH Focal Person	Immediate referral within 24 hours
Rural District Council	Local permits and by-laws	Access, nuisances, local disputes	Council resolution or directive	DPIU Coordinator	Hearing within 15 working days
Civil Courts	Judicial remedy	Contractual or civil disputes	Court order or judgment	PMU Legal Advisor	As per court schedule
IFAD Enhanced Complaints Procedure	Alleged non-compliance with SECAP	Policy or process non-compliance	Assessment, problem-solving, independent review	PMU Coordinator	As per IFAD procedures
AfDB IRM	Alleged non-compliance with ISS	Policy or process non-compliance	Compliance review or problem solving	PMU Coordinator	As per IRM procedures

12.0 DATA PROTECTION, CONFIDENTIALITY AND NON-RETALIATION

The RACP GRM protects personal information and ensures safe reporting. All records are stored in a restricted database with role-based access. Sensitive cases such as GBV and SEAH are coded and stripped of identifiers. Only designated focal persons can access the full record for survivor support and lawful reporting.

Confidentiality is preserved from intake to closure. Communications with complainants use their preferred channel. Documents are watermarked and version controlled. Printed registers

are kept in locked cabinets at district and provincial offices. Data retention follows a minimum of five years after project closure unless national law requires a longer period.

Non-retaliation is mandatory. Any intimidation, threats, or harm against complainants, witnesses, or committee members triggers immediate incident reporting, protective measures, and referral to authorities. The Project Management Unit monitors retaliation risks, conducts unannounced check-ins with complainants where appropriate, and records actions taken to secure their safety.

A simplified data control approach is presented in Table 7.

Data Handling Controls

Control Area	Measure	Responsible Officer	Evidence
Access control	Role-based credentials and two-factor authentication	PMU IT Administrator	Access logs
Confidential cases	Code name, redacted fields, separate vault	GBV/SEAH Focal Person	Encrypted case file
Data in transit	Encrypted email attachments, password-protected documents	All reporting units	Transmission record
Physical security	Locked cabinets, visitor logbook	DPIU and PPIU Admins	Cabinet inventory, visitor register
Retention and disposal	Retention schedule and secure shredding	PMU Records Officer	Disposal certificate

13.0 GENDER, GBV/SEAH AND VULNERABILITY-SENSITIVE PROTOCOLS

The mechanism guarantees equal access for women, youth, persons with disabilities, and other vulnerable groups. Outreach materials use clear language and are translated into Shona, Ndebele, and relevant local languages. Community meetings are scheduled at convenient times and locations, and childcare support is encouraged during consultation sessions where feasible.

GBV and SEAH complaints follow a survivor-centered pathway. Reporting is voluntary and guided by informed consent. No details are discussed in public forums. Trained focal persons provide safe referrals to health services, psychosocial support, legal aid, and police Victim Friendly Units. Case handling respects confidentiality and the do no harm principle. The grievance database logs only coded metadata for such cases.

Workers have safe and confidential channels through site-level focal persons and labour committees. Urgent safety concerns are treated as incidents that require immediate corrective action and same-day communication to the responsible manager and district officer. The steps to be followed for survivor centred case handled are itemised in **Table 9**.

Survivor-Centered Handling Steps

	Step	Purpose	Time Standard	Responsible
1.	Safe intake by trained focal person	Create a confidential and supportive environment	Immediate	GBV/SEAH Focal Person

	Step	Purpose	Time Standard	Responsible
2.	Informed consent and options	Provide information and respect choices	Immediate	Focal Person
3.	Referral to services	Access health, psychosocial, legal support	Within 24 hours	Focal Person and District Social Worker
4.	Security and protection planning	Reduce risk of retaliation	Within 48 hours	Focal Person with VFU
5.	Case follow-up and wellbeing check	Support recovery and satisfaction	Weekly until stable	Focal Person

14.0 RISK MANAGEMENT AND CONTINGENCY ARRANGEMENTS

The GRM anticipates operating risks and establishes clear responses. Risks include low awareness in remote communities, fear of retaliation, data loss, delayed contractor action, high caseloads during peak construction, and institutional turnover. The contingency framework combines prevention, preparedness, response, and recovery (see **Table 10**).

GRM Risk Register and Controls

Risk	Early Warning Signal	Preventive Control	Contingency Action	Owner
Low awareness or access	Few submissions from remote wards	Quarterly radio segments and mobile clinics	Deploy outreach surge team and community champions	PPIU Communications
Retaliation against complainants	Reports of threats or avoidance of meetings	Clear non-retaliation messaging and confidential channels	Immediate protection referral and incident escalation	PMU Social Safeguards
Delayed contractor response	Repeated follow-ups in log	Contract clauses with penalties and performance triggers	Issue non-compliance notice and suspend payment milestones	DPIU and Engineer
Data breach or loss	Unusual access logs or missing files	Role-based access and backups	Isolate system, incident report, restore from backup	PMU IT

Risk	Early Warning Signal	Preventive Control	Contingency Action	Owner
Surge in grievances during works	Spike in weekly intake	Temporary staffing and mediation support	Extend hotline hours and deploy roving mediation team	PMU Coordinator
GBV or SEAH underreporting	Anecdotal reports without formal cases	Survivor-centered awareness and discreet focal points	Independent audit and targeted safe-space outreach	GBV/SEAH Focal Person
Turnover of committee members	Meeting gaps and late reports	Succession lists and routine training	Emergency induction packs and mentorship	PPIU Safeguards

A short incident command sheet describes who does what during emergencies and their contacts. The sheet is printed and posted at district offices and irrigation scheme notice boards.

15.0 RESOURCING, BUDGET AND IMPLEMENTATION PLAN

The Grievance Redress Mechanism requires predictable resources for staffing, outreach, training, and information systems. The budget below (**Table 11**) is indicative for a three-year period and will be refined annually with the work plan. Costs reflect national implementation across multiple provinces and districts with intensive irrigation rehabilitation.

Project GRM Indicative Budget, (USD)

Cost Category	**Cost**	**Notes**
Staffing and stipends for focal persons	85,000	Community, district, provincial
Capacity building and refresher training	55,000	Induction, GBV/SEAH, mediation
Communication and outreach	40,000	Radio, posters, meetings, translations
Hotline and ICT systems	35,000	Toll-free line, database, maintenance
Transport and field verification	50,000	Site visits, inspections
Monitoring, external audits and evaluations	25,000	Midterm and terminal reviews
Contingency and small remediation fund	20,000	For rapid corrective actions
Total	**310,000**	To be aligned with annual AWPB

The implementation plan staggers investments. Systems and training are front-loaded in year one. Field verification and continuous improvement receive stable allocations in following

years. The contingency fund supports small-scale remedial works or emergency communications, subject to PMU approval and transparent accounting.

16.0 IMPLEMENTATION AND EXIT STRATEGY

The implementation roadmap organises the mechanism into phases that build capacity, deliver services, and then consolidate learning for sustainability. It ensures regular review and a clear transition to long-term institutional ownership.

Phase 1: Set-up and Induction

Establish national, provincial, and district committees. Configure the database and hotline. Train focal persons. Publish communication materials. Align referral pathways with national institutions.

Phase 2: Roll-out and Stabilisation

Begin full operation at community level. Track performance against timelines. Conduct quarterly reviews and targeted refresher training. Implement contractor consequence management for delays.

Phase 3: Optimization and Scale

Introduce analytics dashboards and targeted outreach to low-reporting wards. Strengthen mediation capacity and peer learning. Integrate lessons into revised ESMPs and contracts.

Phase 4: Consolidation and Handover

Complete independent evaluation. Finalise the living toolkit. Embed the database and hotline in ministerial structures. Agree on budget lines for post-project continuity and assign permanent custodianship.

Exit Strategy

Sustainability requires a clear transfer of responsibilities. The hotline and database shift to the Ministry’s permanent structures with budgeted lines. Provincial and district committees are integrated into existing development coordination platforms. A compact sustainability plan lists custodians, funding sources, and service standards to be maintained after project closure.

BIBLIOGRAPHY

African Development Bank (AfDB) (2023) *Integrated Safeguards System (ISS): Updated Integrated Safeguards System*. Abidjan: African Development Bank Group.

African Development Bank (AfDB) (2023) *Borrower Guidance Note for Operational Safeguard 5: Labour Conditions, Health and Safety*. Abidjan: AfDB.

African Development Bank (AfDB) (2023) *Environmental and Social Assessment Procedures (ESAP).* Abidjan: AfDB.

African Development Bank (AfDB) (2023) *ESAP Basics Guide*. Abidjan: AfDB.

Constitution of Zimbabwe (2013) *Constitution of Zimbabwe Amendment (No. 20) Act*. Harare: Government of Zimbabwe.

Environmental Management Agency (EMA) (2003) *Environmental Management Act [Chapter 20:27]*. Harare: Government of Zimbabwe.

International Fund for Agricultural Development (IFAD) (2021) *Social, Environmental and Climate Assessment Procedures (SECAP) 2021*. Rome: IFAD.

International Fund for Agricultural Development (IFAD) (2022) *Complaints Procedure: EB 2022/136/R.27*. Rome: IFAD.

International Fund for Agricultural Development (IFAD) (2022) *SECAP Incident Management Procedures (Including GBV/SEAH Protocols)*. Rome: IFAD.

International Fund for Agricultural Development (IFAD) (2021) *SECAP Technical Guidance Notes (Volumes 1 & 2)*. Rome: IFAD.

International Fund for Agricultural Development (IFAD) (2024) *Enhanced Accountability Framework: Complaints and Compliance Procedures*. Rome: IFAD.

Ministry of Public Service, Labour and Social Welfare (1985) *Labour Act [Chapter 28:01]*. Harare: Government of Zimbabwe.

Ministry of Local Government and Public Works (1998) *Traditional Leaders Act [Chapter 29:17]*. Harare: Government of Zimbabwe.

United Nations (2011) *UN Guiding Principles on Business and Human Rights (UNGP)*. New York: United Nations.

World Bank Group (WBG) (2020) *Good Practice Note on Addressing Gender-Based Violence in Investment Projects*. Washington, DC: World Bank.

Zimbabwe Gender Commission (2015) *Gender Commission Act [Chapter 10:31]*. Harare: Government of Zimbabwe.

Zimbabwe Human Rights Commission (2012) *Human Rights Commission Act [Chapter 10:29]*. Harare: Government of Zimbabwe.

Zimbabwe Republic Police – Victim Friendly Unit (VFU) (2020) *Guidelines on Handling Sexual Offences and Child Protection Cases*. Harare: ZRP.

RACP GRIEVANCE INTAKE FORM

(To be completed by the receiving officer at Community, District or Provincial Level)

Section	Field / Description	Input / Notes
1. Case Identification	**Case Reference Number**	(Auto-generated or assigned sequentially)
	Date of Receipt	(DD/MM/YYYY)
	Location of Grievance	Ward, Village, Scheme, District, GPS (if available)
2. Complainant Information	**Complainant Name**	(Leave blank if anonymous)
	Gender	Male / Female / Other
	Age Group	<18, 18–35, 36–60, >60
	Contact Information	Phone number / WhatsApp / Address
	Preferred Communication Method	SMS / Call / WhatsApp / In-person / Email
	Representation (if any)	Name of representative (Traditional Leader, VDC, Family Member, NGO, etc.)
	Vulnerability Category	Woman / Youth / Elderly / Disability / Other (specify)
3. Grievance Details	**Type of Grievance**	Environmental / Social / Labour / Land / Contractor performance / Water access / GBV / SEAH / Corruption / Other
	Brief Description of the Grievance	(Capture in complainant's own words. Attach extra sheet if needed.)
	Date Issue Occurred	(DD/MM/YYYY or Approximate)
	Frequency of Occurrence	One-time / Recurring / Ongoing
	Immediate Risks	Safety risk / Environmental hazard / Risk of retaliation / None
	Supporting Documents or Evidence	Photos, letters, screenshots, witness names (not mandatory)
4. Nature of Resolution Expected (Optional)	**Complainant's Expected Outcome**	(What solution the complainant prefers. This does not determine the final decision.)
5. Initial Screening by Receiving Officer	**Category of Grievance (Screening)**	Level 1: Minor and quick to resolve; Level 2: Requires investigation; Level 3: Sensitive/GBV-SEAH; Level 4: Requires referral

	Referral Needed?	Yes / No. If yes, specify agency (EMA, Labour, VFU, RDC, PMU, etc.)
	Urgency Level	Normal / High / Critical
6. Receiving Officer Details	**Name of Receiving Officer**	
	Position / Institution	CGRC / DPIU / PPIU / PMU
	Signature	
	Date	
7. Acknowledgment to Complainant	**Acknowledgment Provided**	Yes / No
	Method	SMS / Call / Written slip / WhatsApp / In-person
	Date of Acknowledgment	
8. Official Use (Tracking)	**Entered into GRM Database By**	Name and signature
	Date Entered	
	Case File Opened	Yes / No

GRIEVANCE RESOLUTION / CLOSE-OUT FORM

Field Category	Database Field / Column Name	Description
1. Case Identification	Case Reference Number (CRN)	Auto-generated sequential number; unique for each grievance.
	Date Received	DD/MM/YYYY of initial grievance intake.
	Receiving Level	Community / District / Provincial / PMU.
	Location Details	Ward, Village, Scheme, District; GPS coordinates if available.
2. Complainant Information	Complainant Name	"Anonymous" if complainant chooses not to disclose.
	Gender	Male / Female / Other / Prefer not to say.
	Age Group	<18 / 18–35 / 36–60 / >60.
	Vulnerability Category	Woman / Youth / Disability / Elderly / Indigenous / Other.
	Contact Information	Phone number, WhatsApp, or address.
	Preferred Communication Channel	SMS / Phone call / WhatsApp / Email / In-person.
3. Grievance Description	Grievance Category	Environmental / Social / Labour / Land / Water / GBV / SEAH / Contractor Performance / Corruption / Other.
	Detailed Description	Narrative summary of the grievance in complainant's words.
	Date of Occurrence	DD/MM/YYYY or approximate date.
	Frequency	One-time / Recurring / Ongoing.
	Immediate Risk Flag	Safety / Environmental hazard / Retaliation risk / None.
	Supporting Evidence	Photos, documents, witness names, etc.

Field Category	Database Field / Column Name	Description
4. Screening and Classification	Screening Category	Level 1 (Simple), Level 2 (Moderate), Level 3 (Complex), Level 4 (Sensitive/GBV/SEAH).
	Referral Required	Yes / No. If yes, specify agency (EMA, VFU, Labour Inspector, RDC, etc.).
	Assigned Officer / Unit	Name, unit, or committee responsible.
	Date of Screening	DD/MM/YYYY.
5. Investigation	Investigation Required	Yes / No.
	Date Investigation Started	DD/MM/YYYY.
	Date Investigation Completed	DD/MM/YYYY.
	Investigation Findings Summary	Key issues, facts established, verification notes.
	Documents Attached	Investigation forms, site visit notes, photos.
6. Resolution Process	Proposed Resolution	Corrective action agreed upon by complainant and committee.
	Date Resolution Proposed	DD/MM/YYYY.
	Resolution Accepted by Complainant?	Yes / No / Partially.
	Responsible Party for Action	Contractor / PMU / DPIU / PPIU / EMA / Labour.
	Deadline for Corrective Action	DD/MM/YYYY.
7. Corrective Action Tracking	Status of Corrective Action	Not started / In progress / Completed / Pending external actor.
	Date Completed	DD/MM/YYYY.

Field Category	Database Field / Column Name	Description
	Verification by Safeguards Specialist	Name and signature; verification notes.
8. Closure	Date Case Closed	DD/MM/YYYY.
	Complainant Satisfaction Status	Satisfied / Not satisfied / Partially satisfied.
	Closure Confirmation Method	SMS / Call / Written confirmation / Verbal acknowledgement.
	Comments	Additional notes or follow-up requirements.
9. Escalation (if applicable)	Escalated to Next Level	Yes / No. Specify where.
	Date of Escalation	DD/MM/YYYY.
	Reason for Escalation	Delay / Disagreement / Complexity / Legal requirement.
10. Administrative Tracking	Logged By	Officer who entered the case in database.
	Date Entered in Database	DD/MM/YYYY.
	Last Updated On	DD/MM/YYYY.
	Remarks	Internal notes for PMU or auditors.

Appendix 19: Integrated Pest Management Plan

MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT

Integrated Pest Management Plan

Investing in rural people

Prepared by Raymond Makhanda

[Date]

EXECUTIVE SUMMARY

This Integrated Pest Management Plan (IPMP) provides a comprehensive and safeguards-compliant strategy for managing crop and livestock pests within irrigation schemes\ across the project's operational districts. The Plan is designed to strengthen productivity, reduce pest-related losses, minimise environmental contamination, and protect farmers and consumers from pesticide-related risks. It is fully aligned with the African Development Bank's Operational Safeguard 3 and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), as well as Zimbabwe's national legislation governing pesticide use, hazardous substances management and agricultural production systems.

The IPMP recognises the unique challenges and opportunities presented by irrigated agriculture production. These systems support continuous cropping and create favourable conditions for pests such as *Spodoptera frugiperda* (fall armyworm), *Tuta absoluta*, aphids, whiteflies (*Bemisia tabaci*), fruit flies (*Bactrocera dorsalis*), stemborers, cutworms, and red spider mites. Effective management of these pests requires a balanced and integrated approach.

The Plan promotes preventive and ecological strategies as the first line of defence. These include crop rotation, intercropping, field sanitation, synchronised planting, destruction of residues, use of resistant varieties, good water management, and habitat conservation to support natural predators. Mechanical and physical methods such as traps, hand-picking, pruning and soil solarisation are promoted to reduce pest pressure without reliance on chemicals. Biological options, including *Bacillus thuringiensis*, *Beauveria bassiana* and neem-based products, provide environmentally friendly alternatives that are safe for beneficial organisms.

Chemical pesticides are recommended only as a last resort when pest populations exceed economic thresholds. The IPMP outlines strict criteria for pesticide selection, including compliance with the Fertilizers, Farm Feeds and Remedies Act, exclusion of Highly Hazardous Pesticides, avoidance of persistent organic pollutants and adherence to recommended application, storage and disposal procedures. Safe pesticide life-cycle management (procurement, handling, use, triple-rinsing, disposal and record-keeping) is emphasised throughout the Plan.

Strong institutional arrangements underpin implementation. Farmers, Irrigation Management Committees are responsible for day-to-day Integrated Pest Management practices, supported by AGRITEX extension officers who provide technical guidance, scouting support and monthly field verification. DRSS plant protection specialists offer diagnostic support and update approved pesticide lists, while EMA ensures compliance with hazardous substance and environmental regulations. District and provincial project teams provide oversight, data consolidation and monitoring, while the Project Management Unit ensures adequate resource allocation and safeguard compliance.

A detailed Monitoring and Evaluation framework guides weekly scouting, monthly verification, quarterly multisectoral inspections, seasonal assessments and annual reviews. This system ensures early detection of outbreaks, strengthens compliance monitoring and enables adaptive management as pest dynamics shift under climate variability.

Capacity building forms a central pillar of the IPMP. Training programmes target farmers, youth, women, agro dealers, extension officers, irrigation scheme committees and regulatory

stakeholders. The programme emphasises practical, field-based learning, including pest identification, biological control, sprayer calibration, safe pesticide use, storage and disposal, record-keeping and emergency response. Demonstration plots and farmer field schools support hands-on learning.

The budget framework provides realistic Zimbabwe-specific cost estimates, incorporating subsistence rates (USD 75/day), fuel costs (USD 1.55 per litre), PPE, traps, training materials, demonstration costs, storage facilities, disposal pits and multi-sectoral inspection requirements. An estimated USD 31,372 is required annually to fully implement the IPMP, with multi-year budgeting recommended to sustain adoption and compliance.

The IPMP concludes with recommendations aimed at strengthening institutional coordination, increasing promotion of biological and preventive methods, ensuring safer pesticide use, improving monitoring and enforcement, supporting climate-smart pest management, enhancing sustainability through local ownership and securing adequate resources for long-term implementation.

In summary, this Integrated Pest Management Plan provides a practical, scientifically grounded and socially responsible framework that will enable irrigation schemes to manage pests effectively while safeguarding human health, protecting the environment and ensuring compliance with AfDB and IFAD standards. It lays a strong foundation for climate-resilient, productive and sustainable agricultural systems across the targeted districts.

ABBREVIATIONS

Full Meaning
African Development Bank
Agricultural Technical and Extension Services
Department of Research and Specialist Services
Environmental Management Agency
Environmental and Social Management Plan
Environmental and Social Impact Assessment
Grievance Redress Mechanism
Highly Hazardous Pesticide
Integrated Pest Management
Integrated Pest Management Plan / Pest Management Plan
International Fund for Agricultural Development
Irrigation Management Committee
Ministry of Lands, Agriculture, Fisheries, Water and Rural Development
Personal Protective Equipment
Persistent Organic Pollutant
Village Business Unit
World Health Organization

KEY TERMS AND DEFINITIONS

Term	Definition
Integrated Pest Management (IPM)	A sustainable approach to controlling pests that prioritises prevention, monitoring, biological control and safe, regulated pesticide use.
Highly Hazardous Pesticides (HHPs)	Pesticides classified by WHO or international conventions as posing high risks to human health or the environment and prohibited under the project.
Economic Threshold	The pest population level at which control measures must be taken to prevent economic loss.
Biological Control	Use of natural enemies such as predators, parasites or pathogens to suppress pest populations.
Spray Drift	Movement of pesticide droplets away from the target area during application, posing risks to people, water bodies and non-target crops.
Triple Rinsing	Method of cleaning used pesticide containers three times before puncturing and disposal.
Safeguards Compliance	Meeting requirements of AfDB, IFAD and national environmental regulations when conducting project activities.
Pesticide Storage Room	A secure, ventilated facility for safe pesticide storage and inventory control in irrigation schemes.
Grievance	Any concern, complaint or report related to pesticide use, environmental impact, safety issues or mismanagement requiring formal attention.
Beneficial Organisms	Natural predators or biological agents that help control pests, such as ladybirds, lacewings and parasitoids.

1.0 INTRODUCTION AND BACKGROUND

Agriculture is central to rural livelihoods across the project districts. Farmers depend on irrigated and rainfed production systems to secure food, support incomes and strengthen resilience against climate variability. The introduction or rehabilitation of irrigation schemes and village business units increases the capacity for year round production, but it also intensifies the risk of pests, diseases and weeds that can undermine productivity if not effectively controlled.

An Integrated Pest Management Plan is therefore required to guide responsible and sustainable pest management within the project area. The plan is designed to support climate smart agriculture, safeguard human health, protect water and soil quality and ensure compliance with national and international standards for pest and pesticide management. It promotes early detection, ecological approaches and safer pest management options before resorting to chemical pesticides.

The Integrated Pest Management Plan aligns fully with the requirements of AfDB Operational Safeguard 3 and the IFAD Social Environmental and Climate Assessment Procedures. These frameworks emphasise resource efficiency, pollution prevention, integrated pest and vector management, the avoidance of Highly Hazardous Pesticides and safe handling practices throughout the pesticide life cycle.

This chapter provides the context and justification for the Integrated Pest Management Plan and presents the key assumptions that shape its development and application within the project districts.

1.1 Overview of Agriculture in the Project Area

Agriculture in the target districts is characterised by smallholder production systems that combine irrigation, dryland cropping and livestock rearing. Farmers cultivate staple food crops, horticultural crops and engage in livestock activities depending on the local agro ecological conditions and market opportunities.

Key features of agriculture in the project area include:

- Reliance on irrigation to stabilise crop production across seasons
- Expansion of high value crops such as tomatoes, leafy vegetables, beans and maize
- Increased livestock keeping especially cattle, goats and poultry
- Dependence on agrochemical use for crop and livestock health
- Limited access to reliable pest surveillance and advisory services
- High vulnerability to climate related shocks that intensify pest outbreaks

The intensification of agricultural activities in rehabilitated irrigation schemes and village business units increases the likelihood of pest build up. Continuous cropping, increased humidity and year round vegetation cover create favourable conditions for pests and diseases to thrive. This highlights the need for a systematic and integrated approach to pest management.

1.2 Project Background

The project seeks to revitalise smallholder agriculture through improved irrigation infrastructure, strengthened value chains, enhanced farmer organisation and expanded climate smart agricultural practices. These interventions create a more productive and commercially oriented farming environment, but they also introduce new pest management requirements within irrigation schemes and surrounding communities.

Key project activities that influence pest dynamics include:

- Rehabilitation and construction of irrigation schemes
- Strengthening of village business units and market linkages
- Improved livestock production systems and veterinary support
- Introduction of conservation agriculture and soil health practices

As farmers adopt intensified production systems, the need for effective pest identification, monitoring and management becomes more critical. Without an Integrated Pest Management Plan, farmers may apply pesticides indiscriminately which increases environmental and social risks.

1.3 Integrated Pest Management Overview

Integrated Pest Management is a systematic approach that combines multiple complementary pest control practices to maintain pest populations at levels that do not cause economic damage. Integrated Pest Management promotes ecological balance, reduces reliance on chemical pesticides and strengthens long term farm resilience. The approach prioritises prevention and early intervention rather than reactive and chemical based control.

Core elements of Integrated Pest Management include:

- Understanding the biology and ecology of pests
- Regular monitoring and early detection
- Use of resistant varieties and clean planting material
- Cultural practices such as crop rotation and intercropping
- Mechanical and physical control such as traps and hand picking
- Biological control using natural enemies
- Responsible and minimal use of pesticides only when necessary

Integrated Pest Management is recognised globally as a climate smart and environmentally sound approach because it protects beneficial organisms, reduces input costs and avoids negative impacts on human health and natural ecosystems.

1.4 Rationale for the Integrated Pest Management Plan

The Integrated Pest Management Plan is required to respond to the increased pest pressures expected from intensified production within irrigation schemes and village business units. It also addresses social and environmental risks associated with pesticide use including farmer exposure, water contamination and biodiversity loss.

The rationale for the plan is based on the following factors:

- Intensification of crop production increases pest and disease risks
- Farmers often lack the knowledge to apply pesticides safely and responsibly
- Women and youth are particularly exposed to risks due to their roles in agriculture

- Over reliance on chemical pesticides can lead to resistance and higher costs
- Protection of water bodies and soils is essential for irrigation scheme sustainability
- Compliance with national legislation and international safeguards is mandatory
- Integrated Pest Management supports climate smart agriculture and resilience

The plan therefore promotes an approach that reduces chemical dependency and enables farmers to use safer and more sustainable pest management practices.

1.5 Objectives of the Integrated Pest Management Plan

The Integrated Pest Management Plan has the following overarching objective:

- To promote safe, environmentally sound and economically viable pest management practices within the project area.

The specific objectives are:

- To identify common crop pests within the target districts
- To assess current pest management practices and associated risks
- To promote preventive and ecological pest management approaches
- To ensure that pesticides are used only when necessary and in a safe manner
- To build the capacity of farmers, extension workers and agro dealers
- To strengthen surveillance, monitoring and reporting of pest outbreaks
- To ensure compliance with AfDB Operational Safeguard 3 and IFAD SECAP
- To protect vulnerable groups and minimise social and environmental risks

2.0 APPROACH AND METHODOLOGY

The development of the IPMP follows a practical, evidence based and farmer centred process. The approach integrates agronomic science, pest management principles and environmental and social safeguards to ensure that the final plan is realistic, compliant and fully aligned to conditions in the targeted irrigation schemes and village business units. The methodology combines desk study, field based assessments, expert analysis and stakeholder engagement to generate reliable information for identifying risks and proposing sustainable solutions.

2.1 Approach

The approach taken recognises that effective pest management depends on understanding local production systems, existing practices, farmer knowledge and the ecological conditions that influence pest behaviour. The goal is to support a climate smart and ecologically balanced pest management framework.

The approach is guided by the following principles:

- Use of science based Integrated Pest Management foundations
- Inclusion of farmer knowledge and extension experience
- Alignment with national legislation and international safeguards
- Focus on prevention, early detection and ecological balance
- Use of practical solutions that farmers can adopt without creating new risks
- Emphasis on training, behaviour change and institutional support

This approach ensures that the plan is not theoretical but grounded in what farmers, extension officers and district institutions can realistically implement.

2.2 Methodology

The methodology applied to generate the Integrated Pest Management Plan consists of sequential steps that build an evidence based understanding of pest risks, current practices and management gaps.

The methodology includes the following components.

Desk Review

A comprehensive desk review was conducted to understand the legal, institutional and policy environment for pest and pesticide management. This included a review of national legislation such as the Fertilizers Farm Feeds and Remedies Act and the Environmental Management Act. Relevant Statutory Instruments, pesticide regulations, sectoral guidelines and national pest management strategies were also reviewed.

Project documents such as the Project Implementation Manual, feasibility assessments and environmental and social instruments were analysed to identify anticipated pest related risks within irrigation schemes and village business units.

The desk review allowed the project team to clarify safeguard requirements under AfDB Operational Safeguard 3 and IFAD SECAP as well as identify international commitments that influence pesticide selection and handling.

Field Observations

Field visits were undertaken in targeted irrigation schemes and surrounding production areas. These visits allowed the team to observe crop and livestock production systems, common pests, farming practices, pest control behaviour, pesticide storage and disposal, and potential exposure pathways.

Field observations also covered environmental conditions such as proximity to water bodies, buffer zones, vegetation patterns and soil conditions that influence pest dynamics. This information was essential in understanding the environmental and social implications of pest management decisions.

Stakeholder Consultations

Consultations were held with district agricultural extension officers, irrigation management committees, livestock specialists, agro dealers, farmer groups and local leadership. The purpose was to gather their experiences and insights on pest challenges, pesticide access, knowledge gaps and existing coping practices.

The consultations ensured that local voices and indigenous knowledge systems inform the final pest management strategy. This strengthens ownership of the Integrated Pest Management Plan and enhances its likelihood of adoption.

Pest Identification and Risk Analysis

Information gathered from the desk review, field observations and consultations was used to identify major crop, livestock and invasive pests that threaten productivity in the target districts. For each pest category, the likelihood of occurrence, potential damage and environmental or social risk pathways were assessed.

The analysis also considered climatic trends and management practices such as continuous cropping, irrigation cycles and livestock movement patterns that influence pest populations.

Assessment of Current Pest Management Practices

Existing pest control methods used by farmers were evaluated to determine their effectiveness, environmental impact and alignment with Integrated Pest Management principles. The assessment examined the use of cultural, mechanical, biological and chemical methods, including the safety and appropriateness of pesticides in use.

This step identified areas requiring improvement, especially in safe handling, storage, disposal and adherence to recommended doses and pre harvest intervals.

Synthesis and Development of the Integrated Pest Management Plan

Findings from all steps were synthesised into a complete Integrated Pest Management framework tailored to the project context. The synthesis emphasised practical solutions, farmer training needs, institutional responsibilities, monitoring requirements and safe pesticide life cycle management.

The resulting plan forms a clear and workable guide for sustainable pest management across irrigation schemes and village business units.

3.0 CURRENT PEST MANAGEMENT PRACTICES IN THE PROJECT AREA

Current pest management practices in the targeted districts reflect a mix of traditional knowledge, farmer improvisation, partial adoption of Integrated Pest Management principles and significant reliance on chemical pesticides. These practices differ between irrigated schemes, rainfed fields and livestock production systems but share common challenges linked to limited training, inadequate advisory support and poor access to safer pest management technologies.

The introduction of intensified production in irrigation schemes increases the likelihood of pest outbreaks due to continuous cropping, higher humidity and the presence of multiple host plants throughout the year. Understanding current practices provides the foundation for designing a more sustainable and climate smart Integrated Pest Management Plan.

3.1 Pesticide Use in Horticulture and Crop Production

Smallholder farmers in the project districts rely heavily on pesticides to control common pests such as fall armyworm, aphids, stemborers, whiteflies, Tuta absoluta, cutworms and leafminers. This pattern mirrors national observations where pesticide use has become the default response to pest pressure in high value vegetable and maize production (DR&SS, 2020).

Key characteristics of current pesticide use include:

- Use of broad spectrum insecticides purchased from agro dealers
- Over application of pesticides due to fear of crop loss
- Mixing of multiple pesticides without technical guidance
- Limited understanding of pre-harvest intervals and residue risks
- Minimal use of protective clothing during application
- Poor calibration of knapsack sprayers leading to over dosing
- Discarding pesticide containers in open fields or water channels

Pesticide residues such as organophosphates and pyrethroids are often detected in horticultural produce, indicating challenges in safe use and adherence to recommended practices (Muzhinji and Ncube, 2021). These risks increase in irrigation schemes where farmers produce vegetables weekly for local markets.

3.2 Description of Current Pest Management Practices

Pest management across the project districts is dominated by chemical control while ecological and low cost measures are used inconsistently. Farmers combine methods but often lack a structured Integrated Pest Management framework that emphasises prevention and responsible use.

Current practices include the following categories.

Cultural Practices

These techniques remain widely used because they are familiar and low cost.

Examples include:

- Early planting to avoid peak pest pressure
- Crop rotation to disrupt pest cycles
- Intercropping maize with legumes to reduce stemborers
- Field sanitation and removal of infested residues
- Use of resistant varieties when available

Studies have shown that cultural practices can reduce pest damage by up to fifty per cent in smallholder systems when consistently applied (Prasad et al, 2017).

Mechanical and Physical Methods

Farmers use several physical control methods particularly for vegetable pests.

These include:

- Hand picking of caterpillars
- Use of homemade traps for fruit flies
- Application of ash, soapy water or sand on young crops
- Netting for brassicas in some schemes

While effective at a small scale, these methods require labour and are not applied throughout the field.

Biological and Botanical Measures

Biological control is emerging but still limited.

Commonly observed practices include:

- Use of neem extracts where neem trees are available
- Encouraging natural predators by reducing early spraying
- Occasional use of commercially available biopesticides in horticulture

Biopesticide adoption remains low due to cost and limited awareness despite evidence that they are safer and effective against pests like *Tuta absoluta* and whiteflies (Lacey et al, 2015).

Chemical Control

Chemical pesticides remain the dominant method of pest control.

Factors driving heavy reliance include:

- Immediate visible action on pests
- Limited extension advice on alternative methods
- Market pressure to maintain blemish free produce
- Availability of cheaper generics in rural shops

However, misuse of pesticides leads to several risks including environmental contamination, food safety concerns, pest resistance and increased farmer exposure. AfDB and IFAD both emphasise in their safeguards that chemical pesticides should be used only after other approaches fail and must be applied in full compliance with safety requirements (AfDB, 2023; IFAD, 2021).

Post Harvest Pest Control

Farmers apply protectant grain insecticides to maize, sorghum and cowpeas stored in household granaries.

Challenges include:

- Incorrect dosage
- Mixing pesticides with grain without protective measures
- Use of banned fumigants purchased informally
- Limited knowledge of hermetic storage technologies

Improper fumigation poses serious health risks especially to children and women who access storage areas frequently.

3.3 Major Gaps in Current Pest Management Practices

The assessment identified several systemic weaknesses:

- Limited knowledge of Integrated Pest Management principles
- Over dependence on chemical pesticides
- Use of unregistered or expired products
- Absence of record keeping for pesticide use
- Weak enforcement of national pesticide regulations
- Inadequate personal protective equipment
- Poor pesticide storage and container disposal practices
- Lack of trained agro dealers in remote areas
- Limited pest surveillance and early warning systems

These gaps justify the need for a structured and well supported Integrated Pest Management Plan.

4.0 POLICY, REGULATORY AND INSTITUTIONAL FRAMEWORK

Effective pest management must operate within a clear policy and regulatory environment that protects farmers, consumers and ecosystems. Zimbabwe has established legislative instruments that govern pesticide registration, distribution, use, storage and disposal. These laws work alongside international conventions and development partner safeguard standards which emphasise safe and sustainable pest management practices. The Integrated Pest Management Plan therefore aligns with national requirements and ensures compliance with AfDB and IFAD environmental and social safeguards.

4.1 National Legislative Framework

Zimbabwe has two principal legal instruments that regulate pest and pesticide management. These are detailed in the SACP Integrated Pest Management Plan document

and remain the basis upon which pest control activities must be conducted.

4.1.1 The Fertilizers Farm Feeds and Remedies Act [Chapter 18 12]

This Act regulates the manufacture, importation, sale and use of fertilisers, farm feeds and agricultural remedies including pesticides. Key provisions include:

- Registration of all pesticides before sale
- Specification of labelling and packaging requirements
- Quality control to protect farmers from substandard products
- Licensing of suppliers and distributors

The Act is implemented through Statutory Instrument 144 of 2012 which governs pesticide regulations, and Statutory Instrument 162 of 2014 which covers farm feeds and remedies. These regulations directly influence which pesticides may be used within the project area and prohibit the handling of unregistered or counterfeit products.

This Act is a cornerstone of pesticide management in Zimbabwe and is referenced directly in the SACP IPMP document.

4.1.2 Environmental Management Act [Chapter 20 27]

The Environmental Management Act provides the overarching legal framework for environmental protection in Zimbabwe. The Act is administered by the Environmental Management Agency (EMA) and contains provisions directly relevant to pest and pesticide management. These include:

- Regulation of hazardous substances including pesticides
- Licensing for storage, transportation and disposal of hazardous materials
- Control of pollution of air, soil and water bodies
- Requirement for environmental safeguards in project implementation

Relevant statutory instruments under this Act include the Environmental Management Hazardous Substances Regulations which guide safe handling, transport, and disposal of pesticides and empty containers. This aligns with the Integrated Pest Management Plan’s focus on safe pesticide life cycle management.

4.1.3 Public Health Act

The Public Health Act governs matters related to human health including exposure to hazardous chemicals. Improper pesticide use, food contamination and environmental pollution fall under its mandate. District health offices have authority to intervene where unsafe pesticide practices affect community health.

4.1.4 Plant Pests and Diseases Act

Although largely focused on plant quarantine and movement of plant materials, this Act empowers authorities to prevent the introduction and spread of pests of economic importance. It supports surveillance and early warning measures which are essential for Integrated Pest Management.

4.1.5 Occupational Safety and Health Regulations

Workers handling pesticides fall under occupational safety requirements which include provision of personal protective equipment, safe storage and appropriate training. These regulations are aligned with the IPMP's emphasis on protecting farmers, extension workers and agro dealers.

4.2 International Conventions and Treaties

Zimbabwe is party to several conventions that shape national pesticide policies. These conventions influence what chemicals can be procured or used in development projects.

4.2.1 Rotterdam Convention on Prior Informed Consent

The Rotterdam Convention requires the exchange of information between countries on hazardous chemicals and pesticides that are banned or severely restricted. Zimbabwe's compliance ensures that pesticides imported into the country meet safety requirements and are registered.

4.2.2 Stockholm Convention on Persistent Organic Pollutants

This convention bans or restricts persistent organic pollutants such as DDT and lindane. Zimbabwe is obligated to avoid use of listed chemicals and promote safer alternatives. This directly informs the pesticide selection criteria under the Integrated Pest Management Plan.

4.2.3 Basel Convention on Transboundary Movement of Hazardous Waste

The Basel Convention regulates movement and disposal of hazardous waste including obsolete pesticides and contaminated containers. This supports the Integrated Pest Management Plan's requirements for safe disposal through approved facilities.

4.3 Alignment with AfDB and IFAD Safeguard Standards

Both AfDB and IFAD require the adoption of Integrated Pest Management and the reduction of risks associated with pesticide use. These requirements are mandatory for all project supported activities.

4.3.1 AfDB Integrated Safeguards System Operational Safeguard 3

Operational Safeguard 3 on Resource Efficiency and Pollution Prevention emphasises:

- Preference for Integrated Pest Management and Integrated Vector Management
- Avoidance of Highly Hazardous Pesticides
- Safe procurement, storage and disposal of pesticides
- Training of farmers and project staff
- Use of pesticides only when justified by pest thresholds

The uploaded Malawi PMP document also reflects these requirements and reinforces the same obligations under AfDB supported projects .

4.3.2 IFAD Social Environmental and Climate Assessment Procedures

IFAD SECAP guidelines requires:

- Promotion of Integrated Pest Management
- Development of a Pest and Pesticide Management Plan where pesticides are likely to be used
- Screening out of Highly Hazardous Pesticides
- Ensuring that all pesticide use complies with FAO and WHO guidelines
- Strengthening capacity for safe handling and disposal

These requirements guide the design of the Integrated Pest Management Plan and ensure consistency with IFAD funded SACP interventions.

4.4 Institutional Framework

Implementation of the Integrated Pest Management Plan relies on several institutions with defined roles.

- **Ministry of Lands Agriculture Fisheries Water and Rural Development**
  Responsible for agricultural policy, extension services and regulation of pesticides through DR and SS.
- **Environmental Management Agency**
  Oversees hazardous substances, licensing, environmental protection and safe waste disposal.
- **Department of Research and Specialist Services**
  Responsible for pesticide registration, laboratory testing and technical oversight of pest management options.
- **Agricultural Extension Services**
  Provide frontline support to farmers on pest identification, Integrated Pest Management and good agricultural practices.
- **Local Authorities and Rural District Councils**
  Support enforcement of environmental and public health standards at community level.
- **Agro Dealers and Veterinary Suppliers**
  Required to sell only registered pesticides and provide accurate advice to farmers.
- **Farmer Organisations and Irrigation Management Committees**

Facilitate Integrated Pest Management adoption, record keeping, monitoring and collective action within irrigation schemes.

5.0 PEST IDENTIFICATION AND RISK ASSESSMENT

Understanding the major pests that affect crops and livestock in the project districts is essential for designing a strong and responsive Integrated Pest Management Plan. The pests present in the project area vary according to crop type, season, ecological conditions, irrigation intensity and farming practices. Risk assessment further identifies the likelihood of pest outbreaks, potential damage levels and environmental and social implications, allowing preventive and corrective measures to be properly targeted.

The information in this chapter draws from field observations, district extension reports, farmer consultations and verified national pest distribution records from the Department of Research and Specialist Services (DRSS). The chapter also aligns with AfDB Operational Safeguard 3 which requires identification of pest risks and safe management responses, as well as IFAD SECAP which emphasises early warning, Integrated Pest Management and avoidance of Highly Hazardous Pesticides.

5.1 Major Crop Pests in the Project Area

The project districts experience recurring pest outbreaks affecting both staple crops and high value horticultural commodities. These pests are aggravated by climate variability, prolonged warm seasons and intensified irrigation production.

Key crop pests include:

- **Fall armyworm** - Affects maize at vegetative and reproductive stages. Damage is significant under continuous mono cropping and delayed response. Widely reported across Zimbabwe during warm wet seasons.
- **African stemborer and pink stemborer** - Cause dead hearts, tunnelling and reduced grain formation. Present in maize and sorghum fields, especially where stover is left unburned or unincorporated.
- **Aphids** - Affect vegetables, beans and maize. They transmit viral diseases and multiply quickly under warm irrigated environments.
- **Whiteflies** - Severely damage tomatoes, beans and leafy vegetables in irrigation schemes. They transmit viral diseases such as Tomato chlorosis virus.
- ***Tuta absoluta*** - A highly destructive tomato pest that mines leaves, stems and fruit. Frequently recorded in horticultural clusters across Zimbabwe.
- **Leaf miners** - Affect vegetables including tomatoes, cabbages, cucumbers and beans. They thrive under high moisture and temperature conditions in green crops.
- **Cutworms** - Damage emerging seedlings especially in irrigated lands prepared early in the season.
- **Red spider mites** - Occur mainly during hot dry conditions, particularly in tomato and bean crops. They are commonly associated with overuse of broad spectrum insecticides.
- **Fruit flies** - Affect mangoes and several vegetable fruiting crops. High levels are observed where sanitation is inconsistent.

- **Storage pests** - Including maize weevils and larger grain borers which cause severe post harvest losses.

These pests reduce yields, increase production costs and lead to heavy reliance on chemical pesticides when not managed through early detection and preventive Integrated Pest Management measures.

5.2 Factors Driving Pest Proliferation in the Project Area

Several ecological and management factors contribute to recurring pest problems. These include:

- Continuous cropping under irrigation which maintains host plants year round
- High humidity and warm temperatures created by irrigation water
- Limited use of resistant crop varieties
- Inadequate crop rotation and intercropping
- Poor field sanitation and residue management
- Lack of effective surveillance and early warning
- Overdependence on chemical pesticides that disrupt natural predator populations
- Movement of livestock across communities increasing spread of ticks

Understanding these drivers is critical for strengthening preventive Integrated Pest Management interventions.

5.4 Environmental and Social Risks Associated with Pests and Pesticide Use

Pest outbreaks, if unmanaged, lead to significant losses, but the uncontrolled use of pesticides introduces several environmental and social risks.

Environmental risks include:

- Contamination of surface and groundwater sources from pesticide runoff
- Reduction of beneficial insects including bees and natural predators
- Soil degradation from repeated use of persistent chemicals
- Accumulation of pesticide residues in vegetables and grains
- Development of pesticide resistance in key pest populations

Social risks include:

- Exposure of farmers to hazardous chemicals especially women and youths who perform mixing, spraying and harvesting
- Respiratory problems, skin irritations and long term chronic health conditions
- Food safety risks for consumers from pesticide residues
- Increased financial burden due to repeated spraying and purchase of multiple products
- Greater vulnerability of children due to presence of chemicals near homes

AfDB Operational Safeguard 3 and IFAD SECAP emphasise the need to minimise these risks through safe pesticide handling, training, Integrated Pest Management adoption and strong oversight systems.

5.5 Pest Risk Categorisation and Implications

Based on likelihood of occurrence, potential damage and management difficulty, pests in the project area can be categorised as:

- **High risk**:
  Fall armyworm, *Tuta absoluta*, aphids, whiteflies, ticks
- **Medium risk**
  Stemborers, fruit flies, red spider mites, leaf miners
- **Low to emerging risk**
  Cutworms, mealybugs, and storage pests

This categorisation guides prioritisation of resources, early warning systems and training interventions. The pest profile and associated risks highlight the need for:

- Strong early detection and monitoring systems
- Farmer training in Integrated Pest Management practices
- Promotion of biological and botanical control options
- Reduction of over dependence on chemical pesticides
- Strengthened pesticide regulation, inspection and advisory services
- Safe handling, storage and disposal of pesticides
- Creation of community based reporting and rapid response mechanisms

6.0 INTEGRATED PEST MANAGEMENT STRATEGY

The Integrated Pest Management Strategy defines how the project will prevent, detect and control pests in a manner that protects farmers, consumers, the environment and irrigation infrastructure. Because the project focuses on irrigation schemes and Village Business Units, the strategy prioritises ecological approaches that reduce pest pressure in intensive production systems where crops are grown year round, humidity is high and pest cycles are continuous.

The strategy aligns with AfDB Operational Safeguard 3 which requires the use of Integrated Pest Management over chemical based control, and with IFAD SECAP which promotes sustainable, climate smart and socially responsible pest management.

6.1 Principles Governing the Integrated Pest Management Strategy

The strategy is guided by the following principles:

- Prevention is the most effective form of pest management
- Multiple complementary techniques are preferred over reliance on a single method
- Chemical pesticides are used only when absolutely necessary and after thresholds are reached
- Natural enemies and ecosystem services must be preserved
- Monitoring and early detection guide management decisions
- Pesticide use must comply with national regulations and international safeguards
- Farmers, especially women and youths in irrigation schemes, require continuous training
- Safe pesticide life cycle management applies from procurement to disposal

These principles ensure that pest management is practical for farmers while protecting health and environmental integrity.

6.2 Integrated Pest Management in Irrigation Schemes

Irrigation schemes create stable conditions for pests due to continuous moisture, green biomass and presence of multiple host plants. The strategy therefore places strong emphasis on prevention and regulation of production practices within these schemes.

Key measures include:

- Use of resistant and early maturing varieties to escape heavy pest pressure
- Proper land preparation and residue management to reduce harbouring of pests
- Enforcement of synchronised planting to minimise staggered fields that attract pests
- Intercropping and crop rotation to disrupt pest cycles
- Regular scouting of fields including borders, canals and drainage areas
- Field sanitation such as removal of infested plant materials, rotten fruits and volunteer plants
- Regulation of fertiliser use, avoiding excessive nitrogen which attracts sap sucking pests
- Introduction of biological control in protected horticulture blocks
- Encouraging habitat for natural predators around scheme boundaries

Irrigation canals, drains and waterlogged zones can also promote mosquito breeding and snail proliferation. These are addressed through routine clearing, improved water flow and integrated vector management approaches consistent with OS3 requirements.

6.3 Preventive Integrated Pest Management Measures

Preventive measures reduce pest establishment and are the backbone of the strategy. These measures are environmentally sound, low cost and well suited for irrigation schemes.

Preventive measures include:

- Crop rotation with legumes and non host crops
- Use of certified seed and clean planting materials
- Planting dates aligned to avoid peak pest seasons
- Removal and safe destruction of infested residues
- Maintenance of recommended plant spacing to reduce humidity
- Use of mulching and soil health practices that strengthen plant vigour
- Weed management to remove alternate hosts such as black jack, milkweed and jimson weed
- Use of raised seedbeds and protected nurseries in horticulture
- Installation of insect proof netting in nurseries and greenhouse edges
- Encouraging birds and predatory insects by conserving hedgerows

The preventive approach is consistent with FAO Integrated Pest Management guidance and reduces the need for chemical interventions.

6.5 Mechanical and Physical Control Measures

This measure applies where labour availability is relatively high and pests can be physically removed or obstructed.

Examples include:

- Hand picking of caterpillars and egg masses

- Yellow sticky traps for aphids and whiteflies
- Light traps for moths in horticultural blocks
- Fruit fly baiting and trapping systems
- Destruction of infested fruits and leaves
- Soil solarisation in horticultural nurseries
- Use of sand, ash or lime around seedling bases to deter cutworms

These methods are low cost, safe and effective when applied consistently across blocks.

6.6 Biological and Botanical Control Measures

Biological control strengthens natural ecological processes and reduces chemical pesticide use.

Options applicable to the project include:

- Conservation of natural enemies such as ladybird beetles, lacewings, spiders and parasitoids
- Use of biopesticides based on Bacillus thuringiensis and Beauveria bassiana for caterpillars and whiteflies
- Neem extracts prepared locally for sap sucking pests
- Application of entomopathogenic fungi in protected cropping
- Encouraging flowering plants around to support pollinators and beneficial insects

Biological control is essential for long term sustainability and aligns with global best practice in horticulture and irrigated farming.

6.7 Chemical Control as a Last Resort

Chemical pesticides are used only when preventive, biological and mechanical measures fail, and only when pest populations exceed economic injury thresholds. This follows AfDB OS3 requirements for safe and justified pesticide use.

Key considerations include:

- Use of only registered pesticides listed under [Chapter 18 12] and approved by DRSS
- Avoidance of Highly Hazardous Pesticides in line with IFAD SECAP
- Strict adherence to label instructions including dilution rates and pre harvest intervals
- Rotation of pesticide active ingredient groups to delay resistance
- Use of calibrated knapsack sprayers to reduce overdosing
- Provision of full personal protective equipment to applicators
- Prevention of spraying near water bodies and canals
- Safe disposal of empty containers through triple rinsing and secure burial pits

Chemical control is reserved for confirmed outbreaks and documented through irrigation scheme record keeping.

6.8 Surveillance and Early Warning in Irrigation Schemes

Monitoring and surveillance are central to Integrated Pest Management success.

The strategy includes:

- Weekly scouting in irrigation blocks
- Designation of trained lead scouts in each scheme

- Use of pest incidence recording forms consistent with DRSS standards
- Communication of alerts through WhatsApp groups or extension officers
- Linking district plant protection specialists to irrigation scheme committees
- Rapid response to pests before they spread across blocks

Surveillance reduces unnecessary spraying and shifts pest management towards informed and timely responses.

6.9 Safe Pesticide Life Cycle Management

The safe handling, storage, use and disposal of pesticides follow national regulations and international safeguards. The strategy promotes the following:

- Procurement from registered suppliers only
- Centralised pesticide storage at scheme depots with lockable rooms
- Use of proper shelves, ventilation and hazard signage
- Triple rinsing of containers
- Secure disposal pits lined and located away from water channels
- No reuse of pesticide containers for food or water
- Training of farmers in emergency response for spills and exposure incidents

These measures reduce health and environmental risks, particularly for women and youths who dominate labour in irrigation schemes.

6.10 Integration of Climate Smart Pest Management

Climate change increases pest survival rates, accelerates pest population cycles and shifts pest distribution.

The Integrated Pest Management strategy incorporates climate adaptation through:

- Promotion of drought and heat tolerant crop varieties
- Encouraging water management practices that reduce waterlogging and snail or mosquito proliferation
- Use of shade nets to reduce heat stress on crops
- Monitoring of seasonal weather forecasts from the Meteorological Services Department
- Adjustment of planting calendars based on climate advisories

These measures support resilience and reduce vulnerability to emerging pest threats.

6.11 Institutional Support for Integrated Pest Management Implementation

Sustainable implementation requires coordinated roles from:

- District Extension Officers
- DRSS Plant Protection Specialists
- Irrigation Management Committees
- Agro dealers and veterinary suppliers
- EMA environmental inspectors

Each actor contributes to monitoring, training, enforcement and feedback systems that strengthen Integrated Pest Management across the districts.

7.0 INTEGRATED PEST MANAGEMENT PLAN

The Integrated Pest Management Plan provides the operational guidance required to manage pests in a sustainable, safe and economically viable manner across irrigation schemes and Village Business Units. The plan builds on the principles in Chapter 6 and translates them into clear actions, responsibilities and recommended practices. The focus is on prevention, judicious use of chemical pesticides, preservation of natural enemies and protection of farmers, consumers and the environment.

This chapter aligns with AfDB Operational Safeguard 3 and IFAD SECAP provisions which require environmentally sound pest management, avoidance of Highly Hazardous Pesticides and full compliance with national pesticide regulations.

7.1 Recommended IPM Measures for Major Crop Pests

The recommended measures are grouped by pest type and adapted for intensified irrigated production systems.

Fall armyworm (*Spodoptera frugiperda*)

- Synchronised planting within irrigation blocks
- Destruction of crop residues after harvest
- Weekly scouting for egg masses and early instars
- Encouraging natural enemies such as *Cotesia spp*
- Application of *Bacillus thuringiensis* based biopesticides when small larvae are detected
- Chemical control only when infestation exceeds threshold and using registered insecticides

African and pink stemborers (*Busseola fusca* and *Sesamia calamistis*)

- Avoiding late planting
- Field sanitation including removal of stalks and volunteer maize
- Intercropping maize with legumes such as cowpea
- Use of tolerant maize varieties
- Application of selective biopesticides at early crop stages if required

Aphids (*Aphis* spp)

- Avoid excessive nitrogen fertiliser
- Use of reflective mulch in horticulture blocks
- Promotion of natural predators such as ladybirds
- Neem extract application in nurseries and early crop stages
- Targeted chemical control if heavy infestation persists

Whiteflies (*Bemisia tabaci*)

- Removal of alternate hosts such as Solanum spp
- Installation of yellow sticky traps in nurseries and tunnels
- Use of insect proof netting in protected structures
- Application of *Beauveria bassiana* based biopesticides
- Chemical use only when thresholds are exceeded

Tuta absoluta

- Use of insect proof netting in tomato seedling production
- Field sanitation including destruction of infested fruits
- Use of pheromone traps for early detection
- Application of *Bacillus thuringiensis* or other approved biopesticides
- Rotation of insecticide modes of action when spraying becomes necessary

Leaf miners (*Liriomyza* spp)

- Destroy affected leaves and plant residues
- Avoid early heavy spraying which kills parasitoids
- Use of selective products or biopesticides when required

Cutworms (*Agrotis* spp)

- Deep ploughing before planting
- Clean field borders and remove weeds
- Use of ash or lime around seedlings
- Soil drenching with recommended products when necessary

Red spider mites (*Tetranychus urticae*)

- Maintain good irrigation scheduling to reduce heat stress
- Avoid early and repeated pyrethroid use which flares mite populations
- Application of Beauveria bassiana or approved miticides only when required

Fruit flies (*Bactrocera dorsalis*)

- Collection and destruction of fallen fruits
- Use of bait stations and fruit fly traps
- Bagging of fruit for horticultural crops
- Sanitation in mango orchards and vegetable plots

Stored grain pests (*Sitophilus zeamais*, *Prostephanus truncatus*)

- Promotion of hermetic storage technologies
- Cleaning and disinfecting granaries before loading
- Avoid use of banned fumigants
- Use of registered grain protectants only when needed

7.2 Pesticide Selection Criteria

Pesticide selection follows national legislation and international safeguards to ensure human and environmental safety.

The criteria include:

- Product must be registered under the Fertilizers Farm Feeds and Remedies Act
- Product must not appear on the FAO WHO Highly Hazardous Pesticides list
- Only products approved by DRSS shall be used
- Preference given to selective pesticides that spare beneficial organisms
- Use of WHO Class U and Class III pesticides as first option where effective
- Avoidance of persistent organic pollutants banned under the Stockholm Convention
- Clear labelling, packaging and expiry dates must be verified before purchase

Approved lists from DRSS and EMA will be incorporated in the annex of the final plan.

7.3 Safer Use, Handling and Storage Requirements

Safe pesticide management applies throughout the pesticide life cycle.

All irrigation schemes shall:

- Source pesticides only from registered suppliers
- Maintain lockable pesticide storage rooms with ventilation
- Store pesticides separately from seeds, feeds or food items
- Maintain up to date pesticide use and stock records
- Ensure availability of PPE including gloves, masks, boots and overalls
- Use calibrated sprayers to avoid overdosing
- Restrict pesticide preparation and mixing to designated areas
- Maintain emergency washing facilities or clean water at spray sites

7.4 Container Management and Disposal

Empty pesticide containers must never be reused for food or water.

Irrigation schemes shall:

- Triple rinse containers immediately after emptying
- Puncture containers to prevent reuse
- Store temporarily in a marked waste area
- Dispose through a lined burial pit located away from water channels
- Collaborate with EMA for bulk disposal where feasible

7.5 Communication and Reporting Protocols

A structured communication system enhances early detection and coordinated response.

Key elements include:

- Lead scouts in each block reporting pest levels weekly
- WhatsApp groups linking farmers with extension officers
- Rapid mobilisation of schemes when thresholds are reached
- Reporting suspected pesticide poisoning cases to health facilities
- Immediate reporting of Highly Hazardous Pesticides found in circulation

7.6 Integration of IPM into Irrigation Scheme Governance

Effective governance ensures discipline and collective action.

Integrated Pest Management responsibilities include:

- Scheme committees enforcing synchronised planting
- Managing pesticide stores, records and disposal pits
- Extension officers conducting routine training and verification
- District specialists supporting diagnosis and recommendation
- Collective decisions on spraying to avoid uneven field conditions

7.7 Summary IPM Action Framework

The Integrated Pest Management Action Plan includes:

- Preventive cultural and agronomic measures applied season long
- Biological and botanical solutions applied early
- Mechanical and physical controls based on labour availability
- Chemical control only as last resort and with strict compliance
- Continuous monitoring and farmer training
- Safe pesticide life cycle management
- Coordination across irrigation blocks

This forms the operational backbone of pest management for the project.

8.0 MONITORING AND EVALUATION FRAMEWORK

The Monitoring and Evaluation framework ensures that implementation of the Integrated Pest Management Plan is systematic, traceable and aligned with both environmental and social safeguards. Because irrigation schemes and Village Business Units operate under intensified production cycles, monitoring must be frequent, structured and practical. This chapter therefore outlines what will be monitored, who is responsible, how often activities will be carried out and how information will be reported and used to strengthen decision making.

The framework is designed to support early detection of pests, enforcement of safe pesticide practices, improvement of Integrated Pest Management adoption and continuous learning within scheme communities.

8.1 Key Monitoring Indicators

To evaluate Integrated Pest Management performance, the project tracks specific, measurable indicators. These indicators focus on pest levels, behaviour change, environmental protection and compliance with safe pesticide use requirements.

Table 48 below presents the core indicators to be monitored.

Table 48: Integrated Pest Management Monitoring Indicators

Indicator Category	Indicator	Purpose
Pest pressure	Pest incidence and severity for major pests including *Spodoptera frugiperda*, *Tuta absoluta*, aphids and ticks	Early detection, timely response
IPM adoption	Use of cultural, mechanical, biological and botanical controls	Measure shift away from chemical dependence
Pesticide use	Frequency, correctness and justification for chemical application	Ensure pesticides are last resort
Safety	Proportion of farmers using PPE during spraying	Reduce exposure risks
Storage and disposal	Condition of pesticide storage rooms and disposal pits	Prevent environmental contamination

Indicator Category	Indicator	Purpose
Training	Number of farmers and agro dealers trained in Integrated Pest Management	Strengthen capacity and behaviour change
Environmental risks	Incidents of contamination of canals, drains or water bodies	Protect ecosystems within irrigation areas
Health and social risks	Reported pesticide poisoning or exposure incidents	Protect vulnerable groups

These indicators create a reliable foundation for tracking improvements and identifying emerging challenges.

8.2 Monitoring Responsibilities

Integrated Pest Management monitoring requires collaboration among farmers, committees, extension officers and regulatory authorities. The roles are clearly divided to ensure accountability at every stage as presented in Table 49 .

Table 49: Roles and Responsibilities in Integrated Pest Management Monitoring

Actor	Monitoring Responsibilities
Farmers	Daily scouting, reporting pest outbreaks, following Integrated Pest Management practices, safe pesticide handling
Irrigation Management Committees	Enforce synchronised planting, supervise pesticide storage and disposal, ensure weekly pest checks
Extension officers	Conduct monthly field assessments, verify Integrated Pest Management adoption, support diagnosis
DRSS plant protection specialists	Provide diagnostic support, confirm invasive pests, update thresholds
EMA officers	Inspect hazardous substance storage, verify safe disposal
District and provincial project teams	Consolidate reports, track trends, coordinate capacity building

This distribution of responsibilities ensures that pest monitoring is continuous and grounded in local structures.

8.3 Monitoring Schedule

Monitoring occurs at several levels and frequencies. Routine activities allow for day to day observations while structured assessments ensure periodic compliance verification as recommended in Table 50.

Table 50: Monitoring Schedule

Frequency	Monitoring Activity	Led by
Weekly	Field scouting in irrigation blocks	Farmers and block scouts
Bi weekly	Review of pesticide stocks and disposal areas	Scheme committees
Monthly	Field verification of Integrated Pest Management adoption and pesticide safety	Extension officers
Quarterly	Multisectoral Integrated Pest Management compliance inspections	DRSS, EMA, veterinary, extension
Seasonal	Pre planting and post harvest Integrated Pest Management review	District teams
Annually	Project wide Integrated Pest Management performance evaluation	Provincial team

This schedule captures both immediate pest pressures and longer term compliance issues.

8.4 Reporting and Data Management

Monitoring is only useful when findings are communicated clearly and promptly. The reporting system ensures that information moves efficiently from farmers to district teams. Monitoring data are organised and shared through structured reporting channels. This allows the project to detect trends, initiate corrective action and maintain accurate records of pesticide use and Integrated Pest Management adoption.

Key reporting requirements include:

- Weekly scouting forms submitted to extension officers
- Monthly Integrated Pest Management reports compiled by extension officers
- Storage of pesticide inventory records at scheme depots.
- District consolidation of Integrated Pest Management reports into quarterly summaries
- Use of WhatsApp groups for rapid alerts on new pest outbreaks
- Integration of findings into annual project performance reviews

These reporting pathways provide real time situational awareness and allow rapid mobilisation when pest levels rise unexpectedly.

8.5 Evaluation Mechanisms

Evaluation goes beyond routine monitoring and involves assessing whether Integrated Pest Management is achieving its intended environmental, agronomic and social outcomes. These evaluations guide strategic improvements and resource allocation.

Evaluation will focus on:

- Reduction in frequency and volume of pesticide use
- Increased use of preventive and biological control methods
- Reduction in pest related crop losses in irrigation schemes
- Adoption of safe pesticide practices including PPE use
- Effectiveness of capacity building activities
- Compliance with national legislation and safeguard requirements

Evaluations form an essential feedback loop for improving Integrated Pest Management implementation.

8.6 Feedback and Adaptive Management

Integrated Pest Management must remain dynamic because pest behaviour changes with climate variation, cropping patterns and irrigation water management. For this reason, the project uses adaptive management to refine strategies as new information becomes available.

Adaptive management will be guided by:

- Weekly analysis of scouting reports
- Adjustments to thresholds based on observed pest trends
- Introduction of new resistant varieties or biopesticides in response to pest shifts
- Revision of pesticide selection lists when regulations change
- Updating training modules to address gaps identified during monitoring
- Strengthening enforcement when unsafe practices are repeatedly observed

This approach maintains relevance and ensures the Integrated Pest Management Plan remains effective under evolving conditions.

8.7 Budget Requirements for Monitoring and Evaluation

Implementation of the monitoring system requires targeted resources. These costs enable training, field verification, and proper storage and disposal of pesticides.

The budget will cover:

- Training and refresher courses for farmers and block scouts
- Printing of field forms, record sheets and monitoring tools
- Protective clothing for field inspections
- Transport costs for district and provincial verification visits
- Maintenance of pesticide stores, signage and disposal pits
- Annual review meetings and documentation

A detailed costed budget will be prepared at district and provincial levels based on the scale of irrigation schemes.

9.0 IMPLEMENTATION ARRANGEMENTS

Effective implementation of the Integrated Pest Management Plan requires clear roles, reliable coordination mechanisms, strong institutional backing and continuous engagement with farmers. Because the project operates primarily in irrigation schemes and Village Business Units, implementation must be practical, decentralised and closely integrated with existing agricultural support systems. This chapter outlines the institutional arrangements that will guide Integrated Pest Management execution at community, district, provincial and national levels.

The arrangement follows a cascading structure that begins with farmers and local committees and extends upward to regulatory agencies and project management units. This ensures that all activities, from pest scouting to pesticide regulation, are coordinated and consistent across all supported schemes.

9.1 Institutional Roles and Responsibilities

Integrated Pest Management implementation depends on a well defined distribution of responsibilities. Each institution plays a distinctive role that contributes to safe, effective and sustainable pest management.

Below is a structured description of roles, followed by a summary table for quick reference.

Farmers

Farmers are the primary implementers of Integrated Pest Management practices. Their responsibilities include:

- Applying preventive, biological and mechanical Integrated Pest Management measures
- Conducting regular scouting in fields and reporting pest outbreaks
- Using pesticides responsibly and only as a last resort
- Wearing personal protective equipment during application
- Participating in training sessions and adopting recommended practices
- Managing disposal of containers through approve scheme disposal pits

Irrigation Management Committees

These committees maintain order and collective discipline within irrigation schemes. Their roles include:

- Enforcing synchronised planting and good agronomic practices
- Managing pesticide storage rooms and issuance records
- Coordinating block level scouting and reporting
- Facilitating awareness sessions with extension officers
- Ensuring proper maintenance of disposal pits

Agricultural Extension Officers

Extension officers are the technical backbone of Integrated Pest Management implementation. They are responsible for:

- Providing continuous advisory services on pest identification and control
- Conducting monthly monitoring visits to irrigation schemes
- Supporting synchronised planting, crop rotation planning and sanitation campaigns
- Recording and reporting Integrated Pest Management performance to district offices
- Liaising with DRSS specialists for diagnosis and threshold guidance

DRSS Plant Protection Specialists

These specialists provide scientific and technical support for pest management. Their responsibilities include:

- Confirming diagnoses of major and emerging pests
- Advising on resistant varieties, biological control agents and thresholds
- Supporting training of extension officers and scheme leaders
- Updating approved pesticide lists based on national data
- Leading surveillance of invasive pests

Environmental Management Agency

EMA ensures environmental protection in relation to pesticide handling. Its responsibilities include:

- Inspecting pesticide storage facilities at scheme level
- Checking compliance with hazardous substance regulations
- Monitoring disposal of pesticide containers and obsolete stocks
- Advising on environmental safeguards linked to Integrated Pest Management

District and Provincial Project Teams

These teams provide coordination and oversight for Integrated Pest Management across all supported areas. Their responsibilities include:

- Consolidating monitoring data from extension officers
- Ensuring that all districts comply with AfDB OS3 and IFAD SECAP standards
- Producing quarterly Integrated Pest Management performance reports
- Planning annual Integrated Pest Management review meetings
- Facilitating procurement of trainings, tools and PPE

Project Management Unit (PMU)

At the highest level, the PMU ensures strategic oversight, resource allocation and compliance with safeguard requirements. PMU responsibilities include:

- Integrating Integrated Pest Management requirements into project work plans
- Ensuring adequate budget allocation for Integrated Pest Management
- Coordinating with national regulatory bodies such as DRSS and EMA
- Reviewing provincial Integrated Pest Management reports and approving action plans
- Leading periodic safeguard compliance audits

A summary of the responsibilities each actor carries is presented in Table 51.

Table 51: Summary of Implementation Responsibilities

Actor	Key Responsibilities
Farmers members	Scouting, preventive Integrated Pest Management, safe pesticide use, reporting
Irrigation Management Committees	Synchronised planting, storage management, disposal oversight
Extension Officers	Technical support, monthly monitoring, reporting
DRSS Specialists	Diagnostics, thresholds, technical backstopping
EMA	Compliance inspections, disposal regulation
District and Provincial Teams	Oversight, data consolidation, planning
PMU	Strategic oversight, budgeting, safeguards compliance

9.2 Coordination Mechanisms

Good Integrated Pest Management implementation depends on communication and joint planning, particularly because pests spread quickly across irrigated blocks. Coordination ensures that decisions made in one part of the scheme do not undermine efforts elsewhere.

Coordination mechanisms include:

- Monthly coordination meetings between extension officers and scheme committees
- Use of shared communication platforms such as WhatsApp for early warnings
- Quarterly multisectoral inspections involving DRSS, EMA and veterinary officers
- Joint training programmes that bring together farmers from irrigation schemes s
- Development of integrated seasonal calendars combining agronomy, Integrated Pest Management and climate advisories

These mechanisms ensure that knowledge, decisions and actions are harmonised across all levels.

9.3 Resources and Inputs Required for Integrated Pest Management Implementation

Integrated Pest Management implementation requires specific resources related to training, monitoring, safe pesticide handling and storage. These must be budgeted for at district and provincial levels.

Key resource needs include:

- Personal protective equipment for farmers and pesticide handlers
- Pesticide storage structures or secure rooms at scheme level
- Scouting kits including hand lenses, pheromone traps and record books
- Disposal pits for containers
- Biopesticides and botanical alternatives for demonstration plots

- Transport allowances for field monitoring staff
- Training materials and demonstration site preparation costs

Ensuring the availability of these inputs strengthens the credibility and practicality of Integrated Pest Management interventions.

9.4 Integration of Integrated Pest Management into Routine Agricultural Support

To ensure sustainability beyond the project period, Integrated Pest Management must be embedded into routine extension, farmer support and local governance systems.

This integration includes:

- Incorporating Integrated Pest Management into all farmer field days and trainings
- Embedding Integrated Pest Management messages in irrigation scheme by-laws
- Linking Integrated Pest Management surveillance to DRSS national pest monitoring systems
- Including Integrated Pest Management indicators in district agricultural reports
- Encouraging agro dealers to promote safer alternatives and provide correct advice

This mainstreaming approach ensures that Integrated Pest Management remains a continuous practice rather than a one-off project activity.

9.5 Risk Management and Corrective Actions

Implementation risks may arise from farmer reluctance, pesticide misuse, weak enforcement or rapid pest outbreaks. The plan includes early detection and corrective mechanisms to address these risks.

Corrective actions include:

- Immediate retraining of farmers where unsafe practices are repeatedly observed
- Temporary suspension of pesticide use where Highly Hazardous Pesticides are found
- Mobilisation of emergency extension support during severe pest outbreaks
- Strengthening of storage facilities if structural weaknesses are observed
- Targeted environmental inspections where contamination risks are suspected
- Provision of PPE to high risk groups when exposure incidents occur

These responses ensure that risks are reduced before they escalate into larger environmental or social impacts.

9.6 Sustainability Considerations

For long term sustainability, the Integrated Pest Management implementation arrangements promote:

- Behaviour change through continuous training
- Ownership by farmers and committees
- Strong collaboration with government regulatory bodies
- Use of low cost preventive and biological control options
- Integration with climate smart agriculture practices
- Continued knowledge sharing through irrigation structures

These factors ensure that Integrated Pest Management becomes a permanent feature of farming systems in the project districts.

10.0 TRAINING AND CAPACITY BUILDING PROGRAMME

Effective Integrated Pest Management depends on the knowledge, skills and confidence of farmers, extension officers, and scheme committee leaders. Because the project operates in intensified production environments, where pests can spread rapidly and where pesticides are often the default control measure, capacity building becomes central to achieving safe, sustainable and environmentally responsible pest management. This chapter outlines the training priorities, delivery approaches and target groups required to strengthen Integrated Pest Management implementation across irrigation schemes.

The programme emphasises practical learning, behaviour change and farmer centred methods that translate directly into improved agronomy, safer pesticide practices and reduced environmental risks.

10.1 Objectives of the Capacity Building Programme

The training programme aims to ensure that all actors understand Integrated Pest Management principles, apply the recommended practices and manage pesticides safely throughout their life cycle.

To achieve this, the capacity building programme focuses on the following objectives:

- Strengthen farmer understanding of preventive Integrated Pest Management practices
- Improve pest identification skills, including recognition of beneficial organisms
- Promote biological and botanical alternatives to reduce reliance on chemicals
- Build competence in safe pesticide handling, storage and disposal
- Ensure correct calibration and use of knapsack sprayers
- Enhance ability to make threshold based decisions before spraying
- Equip irrigation committees with management and record keeping skills
- Strengthen extension officers' capacity to support monitoring and adaptive management

These objectives ensure that capacity building directly supports safer, more effective and more sustainable pest management.

10.2 Target Groups for Training

Different groups within irrigation schemes require different levels of training based on their roles and responsibilities.

The programme targets the following groups:

- Farmers including women and youth who conduct most field activities
- Irrigation Management Committees overseeing scheme governance
- Extension officers who provide technical backstopping
- Agro dealers supplying pesticides and advisory services
- DRSS and EMA local officers involved in compliance and diagnostics

Targeting each group ensures that all components of the Integrated Pest Management system are strengthened.

10.3 Key Training Themes

Training themes are selected to address the most critical knowledge gaps observed during field assessments and consultations. The content also aligns with national pesticide regulations and international safeguard requirements.

The key training themes include the following areas.

Integrated Pest Management principles and practices

Participants will learn the foundations of Integrated Pest Management, how pests develop, how environmental conditions influence outbreaks and how the Integrated Pest Management hierarchy guides decision making.

Pest identification and early detection

Training includes practical identification of major pests such as *Spodoptera frugiperda*, *Tuta absoluta*, and *Bemisia tabaci*, as well as recognition of symptoms, damage patterns and early infestation signs.

Beneficial organisms and biological control

Participants will learn to identify natural enemies such as ladybird beetles, lacewings, and spiders, and to use *Bacillus thuringiensis*, *Beauveria bassiana* and neem based biopesticides appropriately.

Cultural and mechanical Integrated Pest Management methods

Farmers will practice crop rotation planning, intercropping, sanitation, residue destruction and use of traps and physical barriers.

Safe and responsible pesticide use

Training will cover proper mixing, dilution, application, adherence to pre harvest intervals, protective equipment use, and understanding pesticide labels and toxicity classes.

Calibration and maintenance of sprayers

Hands on demonstrations will teach participants how to calibrate knapsack sprayers to ensure correct dosage and avoid overuse of chemicals.

Storage and disposal of pesticides and containers

Participants will learn correct storage room layout, labelling, ventilation, record keeping and safe triple rinsing and disposal of containers.

Record keeping and reporting

Training will guide irrigations scheme on maintaining pesticide registers, tracking usage patterns and reporting pest alerts.

These themes are designed to be modular, allowing training sessions to be tailored to the needs of each district or production system.

10.4 Training Delivery Approaches

Because farmer learning is most effective when training is practical, the programme prioritises hands on, field based and participatory methods.

The following approaches will guide training delivery.

- Farmer field schools within irrigation schemes to demonstrate Integrated Pest Management practices over seasons
- Demonstration plots showcasing crop rotation, biological controls and trap systems
- Practical sessions on sprayer calibration and safe mixing
- Group walkthroughs of pesticide storage areas to evaluate compliance
- Use of visual tools such as picture based pest identification charts
- In season scouting exercises led by extension officers
- Peer learning where high performing farmers mentor others
- WhatsApp groups used for pest alerts and sharing observations

These methods ensure that learning remains relevant, vivid and closely tied to real field conditions.

10.5 Training Frequency and Scheduling

Training must be aligned with cropping seasons, irrigation schedules production cycles.

To ensure effectiveness, the programme will follow the schedule below:

- Pre season training at the start of each planting cycle focusing on preventive Integrated Pest Management
- In season refresher sessions aligned with pest emergence periods
- Monthly practical sessions on safe pesticide use and sprayer calibration
- Quarterly Integrated Pest Management review meetings at scheme level
- Annual district level training for extension officers and agro dealers

These sessions maintain continuity and reinforce behaviour change throughout the agricultural cycle.

10.6 Training Materials and Tools

To support effective learning, the following materials will be prepared and distributed across project areas:

- Integrated Pest Management training manuals adapted for irrigation schemes
- Pest identification guides with images of pests and beneficial organisms
- Step by step pictorial guides on safe pesticide handling
- Posters on storage room layout and hazard signage
- Calibration charts for knapsack sprayers
- Data collection books for scouts and IMC
- Demonstration inputs such as pheromone traps, biopesticides and resistant varieties

These tools help ensure consistent messaging across districts.

10.7 Capacity Building for Institutional Actors

Institutional actors must be equipped with specialised knowledge to provide consistent support and regulatory oversight.

Training for institutions will include:

- Advanced Integrated Pest Management modules for extension officers
- Laboratory diagnostic support and pest threshold training for DRSS specialists
- Environmental safeguards training for EMA inspectors on pesticide waste and storage
- Safeguard implementation workshops for district and provincial project teams

Strengthening these institutions ensures long-term sustainability of Integrated Pest Management services.

10.8 Expected Outcomes of the Capacity Building Programme

The training and capacity building activities are expected to produce observable improvements in the way pests are managed within irrigation schemes.

Expected outcomes include:

- Increased adoption of cultural, biological and mechanical Integrated Pest Management practices
- Improved ability of farmers to identify pests early and respond appropriately
- Reduction in inappropriate pesticide use and associated risks
- Strengthened compliance with national laws and safeguard requirements
- Improved monitoring and reporting capacity at scheme levels
- Enhanced environmental protection including better container disposal and reduced contamination risks

These outcomes reinforce the overall objectives of the IPMP and contribute to safer, more resilient and more productive agricultural systems.

11.0 ENVIRONMENTAL AND SOCIAL SAFEGUARDS INTEGRATION

The success of the IPMP depends not only on controlling pests but also on ensuring that pest management practices do not cause unintended harm to people, water systems, soils, biodiversity or the broader environment. In irrigation schemes, where production intensity is high and pesticide use is more frequent, environmental and social safeguards become central to maintaining safety, compliance and sustainability. This chapter demonstrates how Integrated Pest Management practices are harmonised with AfDB Operational Safeguard 3 and IFAD SECAP requirements, and how risk prevention is embedded into day to day agricultural activities.

The integration of safeguards focuses on reducing exposure, preventing contamination, avoiding Highly Hazardous Pesticides, coordinating with regulatory bodies and ensuring that vulnerable groups such as women, youths and children are adequately protected.

11.1 Alignment with AfDB and IFAD Safeguard Standards

Integrated Pest Management implementation must respect the standards and obligations set by the financing institutions. The project is required to adopt a preventive and integrated approach to pest management that minimises chemical use and protects both the environment and communities.

AfDB Operational Safeguard 3

Operational Safeguard 3 emphasises:

- Pollution prevention and control
- Integrated Pest Management instead of chemical dependence
- Avoidance of Highly Hazardous Pesticides
- Safe storage, application and disposal of pesticides
- Protection of water bodies, soils and biodiversity within project areas

By embedding Integrated Pest Management within irrigation schemes, the project directly addresses these requirements and promotes safer alternatives such as biological and botanical controls.

IFAD SECAP Requirements

IFAD's Social Environmental and Climate Assessment Procedures require:

- Promotion of Integrated Pest Management in all agricultural value chains
- Implementation of a Pest and Pesticide Management Plan where chemicals are used
- Screening out of prohibited chemicals including persistent organic pollutants
- Strengthening capacity for safe handling, storage and disposal
- Robust monitoring and reporting systems for pesticide risks

Chapter 7 and Chapter 8 of this document provided the specific actions that operationalise these requirements.

Integrated Pest Management 11.2 Environmental Safeguards Integration

implementation must protect the physical environment of irrigation schemes. These areas often include canals, drains, rivers, wetlands and shared grazing lands where contamination risks are high.

Safeguard measures that protect environmental integrity include the following.

Protection of Water Resources

Irrigation systems create direct pathways for contamination through runoff, spillages and drift. Environmental safeguards therefore emphasise:

- Buffer zones between fields and canals
- Avoidance of pesticide mixing and washing near water channels
- Immediate containment of spillages
- Storage rooms located away from boreholes and waterways
- Monitoring of water quality in canals during peak spraying periods

These measures reduce the risk of pesticides entering surface or groundwater systems.

Soil Health and Biodiversity Conservation

Healthy soils and diverse ecosystems are central to long term pest suppression. Safeguard integration therefore promotes:

- Reduced use of broad spectrum pesticides that harm beneficial insects
- Use of mulching, compost and soil improving practices to strengthen plant resilience
- Conservation of hedgerows and vegetation that support predators and pollinators
- Avoidance of soil contamination through incorrect disposal of leftover pesticide mixtures

These practices enhance ecological balance in production landscapes.

Climate Resilience Integration

Climate change intensifies pest cycles. To address this, safeguards promote climate resilient approaches such as:

- Adoption of resistant and tolerant varieties
- Use of weather based advisories for pest forecasting
- Improved irrigation scheduling to avoid excess moisture that favours pests
- Integration of shade nets and microclimate controls where applicable.

This ensures that pest management remains effective under shifting climatic conditions.

11.3 Social Safeguards Integration

Social safeguards ensure that pest management does not put farmers or nearby communities at risk. Irrigation schemes involve a diverse group of participants including women, youths, elderly people and casual labourers. Protecting all these groups from exposure is essential.

Key social safeguard considerations include the following.

Protection of Farmers and Sprayers

Farmers who handle pesticides face the highest exposure risks. Safeguard measures therefore include:

- Mandatory use of personal protective equipment during spraying
- Training on proper mixing, dilution and handling
- Prohibition of children and pregnant women from mixing or applying pesticides
- Ensuring that emergency washing points are available
- Encouraging immediate medical attention in case of poisoning symptoms

These measures significantly reduce occupational health risks.

Protection of Consumers

Consumers must be protected from pesticide residues on horticultural produce and cereals. Safeguards promote:

- Respect of pre-harvest intervals
- Use of selective and less persistent pesticides
- Adoption of biological controls in leafy vegetables and tomatoes
- Regular inspection of fields that pack and supply fresh produce.

This ensures food safety and consumer confidence.

Protection of Vulnerable Groups

Women and youths often perform tasks such as washing pesticide containers, harvesting recently sprayed crops and weeding. Safeguards ensure:

- Their roles are considered in risk assessments
- Training is adapted for different literacy levels
- Chemical handling roles are limited to trained adults
- Disposal sites are fenced and marked to prevent accidental access

Addressing gender and age vulnerabilities strengthens equity and safety.

11.4 Grievance Redress Mechanism for Pesticide Related Issues

A functioning grievance system ensures that any concerns raised by community members regarding pesticide use, exposure, contamination or unsafe practices are promptly addressed.

Grievances may relate to:

- Spray drift affecting nearby households
- Water contamination in canals or boreholes
- Misuse of pesticides
- Health effects experienced by workers or community members
- Use of unregistered or dangerous chemicals

The mechanism will follow the project's established grievance procedure which includes:

- Receipt of complaints at scheme
- Documentation and acknowledgement of grievances
- Investigation and corrective action by extension officers or relevant authorities
- Escalation to district or provincial teams if unresolved
- Feedback to the complainant on actions taken.

This system ensures transparency, trust and early correction of unsafe practices.

11.5 Emergency Preparedness and Response

Although Integrated Pest Management reduces risks, emergency situations may still arise. These can include pesticide spillages, poisoning incidents, chemical fires or sudden invasive pest outbreaks.

Safeguards therefore require the following preparedness actions:

- Availability of first aid kits and clean water at mixing areas
- Training farmers on recognising early symptoms of pesticide poisoning
- Emergency contact lists for health facilities, EMA and DRSS
- Clear instructions on stabilising victims before medical attention
- Spill response procedures including containment and reporting
- Rapid mobilisation of technical teams during severe pest outbreaks

These actions ensure timely and safe responses during emergencies.

11.6 Compliance and Enforcement Mechanisms

To maintain safety standards, compliance must be monitored regularly and corrective actions enforced where necessary. The project integrates compliance checks into routine monitoring activities described in Chapter 8.

Compliance checks include:

- Verification that only registered pesticides are used
- Inspection of pesticide storage rooms and container disposal sites
- Observation of PPE use during monthly inspections
- Reviews of pesticide purchase records
- Environmental inspections of irrigation canals and drains
- Checking for banned or Highly Hazardous Pesticides in local markets

Non-compliance triggers corrective actions ranging from immediate retraining to reporting to DRSS, EMA or local authorities.

11.7 Long Term Sustainability of Safeguards

Safeguard integration must continue beyond the life of the project. Sustainability will be achieved through:

- Continuous training and behaviour change among farmers
- Strong partnerships with EMA, DRSS, and extension departments
- Embedding Integrated Pest Management and safety rules into irrigation scheme by laws
- Strengthening scheme structures to enforce safe practices
- Promoting low-cost biological controls that persist beyond the project period
- Handing over surveillance and reporting systems to district agricultural structures

This ensures that environmental and social protections remain in place even after project exit.

12.0 BUDGET AND RESOURCE REQUIREMENTS

Successful implementation of the IPMP requires adequate and predictable resources to support training, monitoring, safe pesticide handling, storage infrastructure, protective equipment and extension support. Because irrigation schemes and Village Business Units operate throughout the year, the budget must also reflect the recurring nature of scouting, field inspections and capacity building. This chapter outlines the estimated costs needed at community, district and provincial levels to ensure full execution of the Integrated Pest Management Plan.

The budget is based on standard national cost structures, subsistence allowances applicable across Zimbabwe and prevailing market prices for fuel, stationery, protective clothing and demonstration materials. All figures are presented in United States Dollars.

Budget Assumptions

The cost estimates are based on the following assumptions:

- Daily subsistence allowance per officer per day is USD 75 (Breakfast 10, Lunch 20, Supper 15, Accommodation 30).
- Fuel price is USD 1.55 per litre and an average district field visit consumes 25 litres.
- Monthly monitoring visits involve one extension officer plus one district specialist per targeted scheme.
- Quarterly multisectoral inspections involve three officers (DRSS, EMA, AGRITEX) for two days.

- Training of farmers requires venue, refreshments, stationery, PPE demonstration items and trainer costs.
- Storage facilities, disposal pits and demonstration plots require once-off capital investments.

These assumptions reflect real planning conditions commonly used by government departments and development projects across Zimbabwe.

Estimated Annual Integrated Pest Management Budget

Table 52 below provides an annualised estimate supporting irrigation schemes

Table 52: Annual Integrated Pest Management Budget Estimate

Budget Item	Description	Unit Cost (USD)	Quantity per Year	Total (USD)
Fuel for routine monitoring	25 litres per visit × 1.55	39 per visit	48 visits	1,872
Subsistence for monitoring	75 per officer per visit × 2 officers	150 per visit	48 visits	7,200
Quarterly multisectoral inspections	3 officers × 2 days × 75	450 per quarter	4 quarters	1,800
Training of farmers	50 farmers per session, venue, refreshments, materials	600 per training	6 trainings	3,600
Training of extension officers & committees	District level technical sessions	1,200 per session	2 sessions	2,400
PPE for farmers (gloves, masks, aprons)	15 USD per set	200 farmers	3,000	
Sprayer calibration kits	Measuring cylinders, buckets, markers	150 per scheme	6 schemes	900
Pest scouting kits	Hand lenses, forms, stationery, traps	80 per kit	30 kits	2,400
Pheromone and sticky traps	For *Tuta absoluta*, whiteflies, fruit flies	300 per year	1	300
Demonstration plots	Seeds, biopesticides, markers	200 per plot	6 plots	1,200
Construction of pesticide storage rooms	Repair or upgrade	1,000 per room	2 rooms	2,000
Construction of lined disposal pits	500 per pit	6 pits	3,000	
Printing of Integrated Pest Management materials	Manuals, posters, scouting forms	1,200	Lump sum	1,200
Annual Integrated Pest Management review meeting	District level meeting	1,500	1	1,500

Estimated Annual District Total: USD 31,372

Budget Efficiency and Cost Saving Measures

Several measures can improve cost efficiency without compromising effectiveness.

These include:

- Combining monitoring visits with other district extension activities to reduce fuel usage
- Establishing shared pesticide stores for multiple sites
- Using community labour for construction of disposal pits under supervision
- Bulk purchasing of PPE and training materials
- Integrating Integrated Pest Management topics into existing district agriculture training cycles
- Using digital platforms to reduce printing costs

Such measures ensure that the Integrated Pest Management system remains financially sustainable.

Resource Mobilisation Opportunities

In addition to project resources, opportunities for resource mobilisation include:

- Partnerships with agro dealers for subsidised biopesticide demonstration kits
- Collaboration with DRSS for supply of pheromone traps and resistant varieties
- EMA support for hazardous waste disposal
- Local government contributions to storage room construction
- Farmer contributions in labour for Integrated Pest Management infrastructure
- Climate adaptation funds targeting pest related climate risks

These partnerships help expand the reach and sustainability of Integrated Pest Management interventions.

The budget presented in this chapter provides a realistic pathway for institutionalising Integrated Pest Management across irrigation schemes in Zimbabwe.

13.0 CONCLUSION AND RECOMMENDATIONS

The Integrated Pest Management Plan provides a comprehensive and practical framework for managing pests within irrigation schemes and Village Business Units across the project districts. The approach emphasises prevention, ecological balance, farmer empowerment and compliance with national and international safeguards. By integrating agronomic science, community-based practices and strong institutional support, the Plan positions the project to achieve sustainable increases in productivity while minimising environmental and social risks.

Implementation of this Plan will require discipline, coordination and continuous learning. Farmers, irrigation management structures, extension officers, DRSS, EMA and the Project Management Unit all play distinct yet interdependent roles. The strategies outlined in earlier chapters, ranging from routine scouting and biological control to safe pesticide storage and adaptive monitoring, provide a foundation for safer, more resilient and climate-smart agriculture.

The success of this Integrated Pest Management Plan will ultimately depend on the degree to which farmers adopt and consistently apply the recommended practices. Continuous training, supportive governance structures and adequate resource allocation will be critical. Equally important is the need for ongoing surveillance to detect emerging pests, evolving pesticide resistance patterns and shifting risks brought by climate change.

To ensure full achievement of Integrated Pest Management objectives, the following key recommendations are made.

Strengthen Institutional Coordination

Institutions must work together to harmonise training, monitoring, inspections and technical support. Quarterly multisectoral collaboration involving DRSS, EMA, AGRITEX and veterinary departments should be institutionalised.

Increase Support for Biological and Preventive Measures

Biological controls, certified seed, resistant varieties, crop rotations, intercropping, sanitation and water management practices must be scaled up to reduce reliance on chemical pesticides, especially in horticulture and irrigated maize.

Invest in Continuous Capacity Building

Training should be ongoing and adapted to seasonal challenges. Farmer field schools, demonstration plots and refresher courses for extension officers will help sustain adoption of best practices.

Ensure Safe and Responsible Pesticide Use

Only registered pesticides should be used, and Highly Hazardous Pesticides must remain prohibited. Clear guidance on mixing, application, PPE use, pre-harvest intervals and container disposal is essential to protect farmers and consumers.

Maintain Strong Monitoring and Enforcement

District teams should prioritise monitoring Integrated Pest Management indicators, inspecting storage rooms, verifying disposal pits and ensuring compliance with national laws and AfDB/IFAD safeguards. Deviations should trigger immediate corrective action.

Promote Climate-Smart Pest Management

Climate change is altering pest patterns in Zimbabwe. Integration of weather advisories, heat/stress management, tolerant varieties and improved irrigation scheduling must be prioritised to maintain sustainability and resilience.

Support Sustainability Through Local Ownership

Embedding Integrated Pest Management rules in irrigation scheme by-laws, strengthening IMC, and ensuring farmer ownership of practices will promote sustainability during and beyond the project’s lifespan.

Allocate Adequate Budget and Resources

Reliable financing for monitoring, training, PPE, safe storage, disposal pits and demonstration materials is essential. Without sufficient resource commitment, Integrated Pest Management risks becoming fragmented and ineffective.

BIBLIOGRAPHY

African Development Bank (AfDB) 2023, *Integrated Safeguards System: Operational Safeguard 3 – Biodiversity and Ecosystem Services*, African Development Bank Group, Abidjan.

Agricultural Research Council 2020, *Fall Armyworm Integrated Pest Management Guide for Africa*, ARC South Africa, Pretoria.

Environmental Management Agency (EMA) 2012, *Statutory Instrument 12 of 2007: Hazardous Substances, Pesticides and Toxic Substances Regulations*, Government of Zimbabwe, Harare.

FAO 2015, *International Code of Conduct on Pesticide Management*, Food and Agriculture Organization of the United Nations, Rome.

FAO 2017, *Guidance on Highly Hazardous Pesticides*, Food and Agriculture Organization of the United Nations, Rome.

FAO 2022, *Integrated Pest Management Guidelines for Smallholder Farmers*, FAO Plant Production and Protection Division, Rome.

FAO & WHO 2016, *Pesticide Residues in Food: Joint Report of the 2016 Joint FAO/WHO Meeting on Pesticide Residues (JMPR)*, FAO/WHO Joint Secretariat, Rome & Geneva.

Government of Zimbabwe 1971, *Fertilizers, Farm Feeds and Remedies Act [Chapter 18:12]*, Government Printer, Harare.

Government of Zimbabwe 2002, *Environmental Management Act [Chapter 20:27]*, Government Printer, Harare.

IFAD 2021, *Social, Environmental and Climate Assessment Procedures (SECAP) Guidelines*, International Fund for Agricultural Development, Rome.

IFAD 2020, *Guidelines for Preparing a Pest and Pesticide Management Plan*, International Fund for Agricultural Development, Rome.

Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) 2021, *National Plant Protection Strategy*, Government of Zimbabwe, Harare.

Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) 2022, *DRSS Registered Pesticides List*, Department of Research and Specialist Services, Harare.

UNEP 2001, *Stockholm Convention on Persistent Organic Pollutants*, United Nations Environment Programme, Geneva.

UNEP & FAO 2010, *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*, Secretariat of the Rotterdam Convention, Geneva & Rome.

WHO 2020, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification 2020*, World Health Organization, Geneva.

World Bank 2019, *Environmental, Health and Safety Guidelines: Annual Crop Production*, World Bank Group, Washington DC.

PRIORITY CROP PESTS FOR RACP

A. MAJOR FIELD CROP PESTS

1. Fall Armyworm

Spodoptera frugiperda
A major pest in maize, sorghum and irrigated cereals, present throughout Midlands.

2. African Stemborer

Busseola fusca
A chronic problem in maize, particularly where crop residues are not destroyed.

3. Pink Stemborer

Sesamia calamistis
Common in warm irrigated zones and wetter field margins.

4. Cutworms

Agrotis spp
Observed during land preparation and early crop establishment.

5. Leaf Miners

Liriomyza spp
Affect tomatoes, beans and leafy vegetables, especially under irrigation.

6. Aphids

Aphis spp, *Rhopalosiphum maidis*, *Myzus persicae*
Occur on vegetables, maize, tobacco and horticultural crops.

7. Whiteflies

Bemisia tabaci
A key vector of viral diseases in tomatoes and leaf vegetables.

8. Red Spider Mites

Tetranychus urticae
Common under hot, dry irrigated conditions and in protected structures.

9. Thrips

Thrips tabaci
Affects onions, tomatoes and legumes.

B. HORTICULTURAL CROP PESTS

1. Tomato Leafminer

Tuta absoluta
A high-risk pest in tomatoes grown in VBUs and gardens.

2. Fruit Flies

Bactrocera dorsalis
A major pest in mangoes, cucurbits and tomatoes.

3. Diamondback Moth

Plutella xylostella
Severe in cabbage and brassicas under irrigation.

4. Cutworms (Horticulture)

Agrotis ipsilon and related spp
Damage seedbeds and newly transplanted seedlings.

5. Tomato Hornworm / Caterpillars

Helicoverpa armigera
Persistent in irrigated tomato blocks.

6. Whiteflies and Greenflies

Bemisia tabaci and *Aphis gossypii*
Cause sap-sucking and transmit viral diseases.

7. Powdery Mildew (Vector Interactions)

Erysiphe cichoracearum
Though fungal, its management is linked to insect activity and humidity.

C. STORED GRAIN PESTS

1. Maize Weevil

Sitophilus zeamais
Widespread in household granaries and grain aggregation centers.

2. Larger Grain Borer

Prostephanus truncatus
A destructive pest in warmer low-lying areas such as Muzarabani.

3. Flour Beetles

Tribolium castaneum
Affects milled grain and stored pulses.

4. Bean Bruchids

Acanthoscelides obtectus
Attack stored beans.

D. INVASIVE OR EMERGING PESTS OF CONCERN

1. Fall Armyworm

Spodoptera frugiperda
Though naturalised, it remains an invasive threat.

2. Tomato Leafminer

Tuta absoluta
Continues to spread and develop pesticide resistance.

3. Larger Grain Borer

Prostephanus truncatus
Increasing presence in warm lowveld zones.

4. Desert Locust (Regional monitoring importance)

Schistocerca gregaria
Not currently present but monitored due to regional outbreaks.

F. SUMMARY TABLE OF PRIORITY PESTS

Category	Key Pests	Scientific Names
Field crops	Fall armyworm, stemborers, cutworms, aphids	*Spodoptera frugiperda*, *Busseola fusca*, *Agrotis* spp, *Aphis* spp
Horticulture	*Tuta absoluta*, whiteflies, fruit flies, DBM	*Tuta absoluta*, *Bemisia tabaci*, *Bactrocera dorsalis*, *Plutella xylostella*
Stored grain	Maize weevil, LGB, bruchids	*Sitophilus zeamais*, *Prostephanus truncatus*, *Acanthoscelides obtectus*
Emerging pests	Fall armyworm, *Tuta absoluta*	As listed above

RESTRICTED, PROHIBITED AND HIGH-RISK PESTICIDES

A. HIGHLY HAZARDOUS PESTICIDES (HHPs) – BANNED FROM PROJECT USE

These pesticides fall under **WHO Class Ia (Extremely Hazardous)** or **Class Ib (Highly Hazardous)** categories.
Under AfDB OS3, IFAD SECAP and FAO/WHO guidelines, these are **strictly prohibited**.

Active Ingredient	Classification	Reason for Restriction
Aldicarb	WHO Class Ia	Highly toxic; groundwater contamination
Aldrin	Stockholm Convention	Persistent organic pollutant (POP)
Camphechlor (Toxaphene)	Stockholm Convention	POP, banned globally
Chlordane	POP	Long-term soil and water contamination
Dieldrin	POP	Bioaccumulation and extreme toxicity
Endrin	POP	Very persistent and carcinogenic
Heptachlor	POP	Banned for agricultural use
Lindane (Gamma-HCH)	POP	Endocrine disruptor; persistent pollutant
Parathion (ethyl and methyl)	WHO Ia/Ib	Extremely hazardous
Methyl bromide	Ozone Depleting	Banned except for critical uses
Mercury-based fungicides	Highly Hazardous	Toxic to humans and aquatic life
Monocrotophos	Class Ib	Very harmful to birds and farmers
Phorate	Class Ia	Highly systemic toxin
Phosphamidon	Class Ia	Neurotoxic
Methamidophos	Class Ib	Restricted due to poisoning cases

These chemicals **must never be used** within the project area.

B. ZIMBABWE-RESTRICTED PESTICIDES (Not Allowed Under the Project)

Zimbabwe's **Fertilizers, Farm Feeds and Remedies Act** restricts various pesticides due to misuse, poisoning cases or environmental concerns. Even if legally restricted nationally, the project prohibits their use entirely.

Active Ingredient	Restriction Basis
Carbofuran	Highly toxic; improper use by farmers
Diazinon	Hazardous around water bodies
Fenamiphos	Soil and groundwater contamination
Methomyl	Acute toxicity to humans
Endosulfan	Banned in Zimbabwe (2012)

C. PESTICIDES NOT ALLOWED NEAR WATER BODIES

Because irrigation schemes operate next to canals, drains and reservoirs, the following pesticides are **prohibited** due to high aquatic toxicity:

Active Ingredient	Reason
Cypermethrin	Highly toxic to fish and aquatic insects
Lambda-cyhalothrin	Persistence in sediment
Deltamethrin	Kills beneficial aquatic organisms
Chlorpyrifos	High toxicity; drift risk
Profenofos	Strong effect on aquatic invertebrates

Biological options are preferred in these zones.

D. RESTRICTED USE IN RRIGATION SCHEMES (Allowed Only Under Strict Guidance)

These pesticides are **not banned**, but due to misuse risks, the project will allow them only when:

- thresholds are reached
- correct PPE is available
- extension officers supervise
- proper disposal procedures are followed

Active Ingredient	Notes
Imidacloprid	Allowed only in seed treatment; harmful to bees
Acetamiprid	Lower risk but requires controlled use
Mancozeb	Avoid use near wetlands; follow re-entry intervals
Metalaxyl	Must follow label rates to avoid resistance
Permethrin	Restricted near water bodies; toxic to fish

E. BOTANICAL AND BIOPESTICIDE PRODUCTS APPROVED FOR PROJECT USE

The following low-risk products are **recommended**, especially for horticulture crops:

Biopesticide / Botanical	Target Pests
***Bacillus thuringiensis* (Bt)**	Caterpillars, *Spodoptera*, *Tuta absoluta*
Beauveria bassiana	Whiteflies, aphids, thrips
Neem extracts (*Azadirachta indica*)	Soft-bodied insects
Metarhizium anisopliae	Soil pests, locust hoppers
Pyrethrum (natural)	General soft-bodied pests

These are fully compliant with AfDB and IFAD safeguards.

F. SUMMARY OF ALLOWED VS PROHIBITED CHEMICALS

Category	Status for IPMP	Notes
WHO Class Ia / Ib	**Prohibited**	Never to be procured or used
POPs (Stockholm Convention)	**Prohibited**	Persistent environmental toxins
Highly toxic organophosphates	**Prohibited**	Unsafe for farmers
Synthetic pyrethroids near water	**Restricted**	High aquatic toxicity
Neonicotinoids	**Restricted**	Bee protection required
Copper fungicides	**Allowed with caution**	Avoid buildup in soils
Biopesticides	**Fully allowed**	Preferred under Integrated Pest Management
Neem/plant extracts	**Fully allowed**	Safe and sustainable

Appendix 20: Temperature trends and precipitation table for Midlands

Month	Temperature (°C)	Precipitation (mm)
January	24.48	240
February	24.05	210
March	23.55	215
April	21.87	60
May	20.09	20
June	18.00	10
July	17.38	0
August	18.21	5
September	25.71	20
October	27.38	80
November	27.89	230
December	25.73	240

Appendix 21: Terms of References

ENVIRONMENTAL MANAGEMENT AGENCY

All communications should be addressed to "The Director General"
685/686 Lorraine Drive/Faber Road, Bluffhill,
P O Box CY 385, Causeway, Harare
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Telephone 08677006244; E-mail: registry@ema.co.zw,

17/1/1/3A

17 SEPTEMBER 2025

ZIRA MAVUNGANIDZE
IFAD
HARARE

PROPONENT: +277 2072 362 **CONSULTANT: SIRDC: sirdc.esi@gmail.com**

RE: PROSPECTUS REVIEW FOR RESILIENCE AGRICULTURE CLUSTER PROJECT (PROJECT NUMBER 20830)

The above matter refers.

You are advised to carry out and submit an Environmental Management Plan for **each of the Provinces** for the proposed project in terms of the Environmental Management Act, CAP 20:27. The Environmental Management Plan should be structured in the format:

1. An executive summary
2. A table of contents
3. List of acronyms
4. Introduction / project background
5. Full project description
6. Impact identification and analysis
7. Location map for the proposed site
8. EMP implementation plan
9. Decommissioning plan
10. Proof of stakeholder consultation from Local Authority, and surrounding land users

Your EMP presentation should also be able to satisfy the provisions of the statutory regulations of the **Environmental Management Act** and be of professional standard in quality and presentation.

However, let it be known that several factors will play a determining role in the consideration of the EMP study and, as such, the acceptance of this prospectus shall in no way be interpreted as implied acceptance and granting of the EIA certificate by the Agency.

TOGETHER - PROTECTING THE ENVIRONMENT
Amb. Z.Nsimbi (Chairperson); Mrs R Dhobbie (Vice Chairperson) Mrs T Chimanikire (Member); Mrs A Dhlamini (Member); Dr S Sibanda (Member); Mr T Shoko (Member); Ms A K Khan (Member); Dr K. Siziba (Member); Mr W Makamure (Member); Mr M Mwagura (Member);Mr.A Chigona (Member)

ENVIRONMENTAL MANAGEMENT AGENCY

Please do not hesitate to contact us on any environmental issues related to the implementation of your project and you are advised not to implement the project until an EIA certificate has been granted.

Thank you

C. MUSHAVA
DIRECTOR: ENVIRONMENTAL PROTECTION
FOR: DIRECTOR GENERAL
Ce: PEM: MATABELELAND NORTH PROVINCE
: PEM MIDLANDS PROVINCE
: PEM MASHONALAND WEST PROVINCE
: PEM MASHONALAND CENTRAL PROVINCE
: PEM MASHONALAND EAST PROVINCE

PROTECTION
HARARE ZIMBABWE
22 SEP 2025
TELEPHONE

RECEIVED BY: .....
DESIGNATION: .....
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DATE: .....
I.D NUMBER: .....

Amb. Z.Nsimbi (Chairperson); Mrs R Dhobbie (Vice Chairperson) Mrs T Chimanikire (Member); Mrs A Dhlamini (Member); Dr S Sibanda (Member); Mr T Shoko (Member); Ms A K Khan (Member); Dr K. Siziba (Member); Mr W Makamure (Member); Mr M Mwagura (Member):Mr.A Chigona (Member)

Appendix 22: Baseline data

Indicator	Provincial Overview (Midlands Province)	Kwekwe District	Chirumhanzu District
Biophysical Profile	Largely agrarian with varied ecosystems; semi-humid climate	Mixed topography; vulnerable to erosion and sedimentation	Predominantly rolling terrain; significant rainfall variability
Primary Livelihoods	Smallholder maize, groundnuts, tobacco, and horticulture	Mixed crop-livestock systems; mining as supplemental income	Rainfed agriculture; mainly maize, sorghum, and groundnuts
Gender Dynamics	Women significantly contribute but face resource constraints	Women make up 50% of agricultural workforce	Women have limited access to land and resources
Youth Dynamics	Youth underrepresented in governance	High unemployment; few opportunities for youth	Dispersed population; youth face significant challenges in employment
Vulnerability & Risk	Prone to climate variability and recurrent droughts	High exposure to flooding and drought; poor infrastructure	Land degradation; limited access to services intensifies vulnerability
Health/WASH	Inadequate water and sanitation facilities	Limited access to clean water; health services deficient	Inadequate sanitation facilities contributing to health risks