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

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) REPORT

RESILIENCE AGRICULTURE CLUSTER PROJECT (RACP) FOR ZIMBABWE

IN
MATEBELELAND NORTH
PREPARED BY

ENVIRONMENTAL SCIENCE INSTITUTE
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 three targeted irrigation schemes in the Gwayi Catchment within Matebeleland North Province. These include Lukosi, Msuna and Tshongokwe. 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 includes 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 high vulnerability to drought, declining water security, siltation of dams, degraded riverbanks and pressure on catchment vegetation. Communities depend largely on smallholder crop and livestock production and have expressed strong support for improved irrigation functionality, water management systems and economic opportunities. Provincial unemployment and labour indicators show notable vulnerability with the 2022 census analysis reporting an overall provincial unemployment estimate of 22.7% (female 31.6%, male 17.9%).

The project area is located in Matabeleland North Province (area 75,025 km²) and is sparsely According to the 2022 census, the area has a population of 827,645 people and a population density of roughly 11 persons/km².

The province is semi-arid to arid and highly drought-prone. Average annual precipitation across wide parts of Zimbabwe has historically averaged 600–700 mm/year but is highly variable spatially and temporally. Many parts of Matabeleland North routinely receive 400–600 mm/year, with increasing frequency and length of dry spells and more intense drought episodes reported in recent years. These climate patterns drive the province's high vulnerability to drought and declining water security.

Soils are generally low-fertility sandy to shallow loams (Kalahari basin edge), with widespread indications of catchment degradation. Siltation of smallholder dams and weirs, and erosion/declining riverbank stability are reported regionally as key concerns for water storage and irrigation viability.

The province contains major protected and high-value natural areas (e.g., Hwange National Park and the Zambezi/Victoria Falls corridor) with associated biodiversity and cultural heritage values that are sensitive to hydrological change and land degradation.

Summary of Stakeholder Consultations

Consultations were conducted between August and September 2025 across all three schemes. They involved farmers, traditional leaders, women and youth groups, district authorities, 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 the Table 1.

Table 1:Stakeholder input summary

Location	**Dates**	**Key Issues Raised**	**Responses / Commitments**
Lukosi	Multiple Meetings	Boundary fence, Irrigation functionality	security of crops and scheme, Repair of canals and siphons
Msuna	Field meetings	Pump failures, Farming Equipment	Replacement pumps and water reservoirs, new farm equipment
Tshongokwe	Multiple meetings	Soil erosion risks, Dam siltation, Gender mainstreaming	Gabion installation, Dam deepening Participation of all genders in decision making at all levels

Summary of Major Positive Impacts

The project is expected to deliver the following positive impacts:

- Improved food security through year-round crop production in the three schemes and surrounding communities.
- Improved water access at all the schemes through modern conveyance, repaired canals and dam scooping and solar powered pumping.
- Improved incomes for more than two thousand farmers through enhanced supply reliability and reduced input losses.
- Increased household income due to higher yields and improved productivity.
- 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.
- Better and improved farm infrastructure and services
- Strengthened community cohesion and skills through training modern irrigation and climate smart practices.

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.
- Water Resource Depletion due to Over-abstraction of water from rivers or boreholes during dry seasons.
- 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.
- Temporary disturbance of eleven kilometres of access roads and associated dust and noise affecting two hundred to three hundred households.
- Risks of injury during excavation and installation activities.
- Possible contamination of water bodies through poor handling of oils, fuels and pesticides.
- Potential disputes over water allocation among farmers if water governance is not adequately strengthened.

These 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

Impact Category	Positive or Negative	Key ESMP Measures
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

Table 3: ESMP Cost Categories and Estimates

Category	Cost Estimate (USD)
Environmental mitigation	45 000
Social inclusion and safeguards	27 000
Climate adaptation and IPM	36 000
Grievance management and awareness	15 000
Health and safety systems	18 000
Monitoring and independent audits	27 000
Capacity building for farmers, IMCs, and district teams	12 000
Total ESMP Cost	**180 000**

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
MN- 1	Water contamination risks from upstream livestock access, siltation and agrochemical use	Proper siting of stockpiles away from drainage lines Construct cattle exclusion fencing around intakes	Q3 2026	75,000	100% completion of WASH facilities.	Contractor / PIU	EMA/AfDB/IFAD
MN-2	Gender inequality & exclusion of vulnerable households	Establish gender- and youth-sensitive stakeholder committees and allocate plots fairly	Q2 2026		Women >40%, Youth >25 % involved	PIU/RDCs	AfDB/IFAD
MN-3	Soil Erosion/Siltation Impact	Mulching and conservation farming Maintenance of buffer zones, silt traps	Q4 2026	45 000	100 % of pump houses secured.	Contractor /PIU	PIU
MN- 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)
ESIA	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 Resilience Agriculture Cluster Project (RACP) is led by the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) of the Government of Zimbabwe. The Ministry is officially mandated under the Agricultural Sector Coordination Act and related statutes to oversee policy development, implementation, and monitoring of agricultural programmes nationwide. It is formally registered as a government line ministry and operates under the authority of the Civil Service Commission, with its statutory functions defined in the Government Gazette.

RACP is financed through a blended arrangement between the African Development Bank (AfDB) under its Climate Action Window (CAW) and the International Fund for Agricultural Development (IFAD), complemented by the Government of Zimbabwe counterpart contributions. The project forms part of the Ministry's broader mandate to drive climate-resilient agricultural transformation and rural development, building directly on lessons learned from the Smallholder Agriculture Cluster Project (SACP).

Operationally, RACP is implemented through a dedicated Project Implementation Unit (PIU) established within the Department of Irrigation and Water Development. The PIU is responsible for planning, procurement, contract management, environmental and social safeguards compliance, and overall project monitoring. It works in close collaboration with provincial and district agricultural extension offices, catchment councils under the Zimbabwe National Water Authority (ZINWA), and Rural District Councils (RDCs).

Beyond its own structures, the Ministry will engage with local water user associations, farmer organisations, and private-sector partners to implement specific activities such as irrigation rehabilitation, market infrastructure development, catchment restoration, and climate information services. This approach ensures that RACP interventions are locally owned and responsive to community priorities, while meeting AfDB and IFAD safeguard and performance standards.

By situating RACP within the Ministry's institutional framework and linking it to national and district-level actors, the project embeds accountability, sustainability, and inclusive participation across all 18 target districts spanning the Gwayi, Sanyati, Manyame and Mazowe catchments.

1.2 Background

Agriculture remains the backbone of Zimbabwe's economy, employing over 60 percent of the population and underpinning food security and rural livelihoods. Yet the sector is increasingly exposed to climate change, recurrent droughts, erratic rainfall and land degradation. Over the past two decades, rural households have experienced deepening poverty and food insecurity, compounded by weak infrastructure, underperforming irrigation systems and limited access to reliable markets.

To address these systemic challenges, the Government of Zimbabwe, through the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD), in partnership with the African Development Bank (AfDB) and the International Fund for Agricultural Development (IFAD), designed the Resilience Agriculture Cluster Project (RACP). This initiative builds on the lessons of the Smallholder Agriculture Cluster Project (SACP), which piloted climate-smart interventions, market linkages and inclusive governance structures, and takes the approach further by scaling up investments in climate-proof infrastructure, sustainable natural resource management and rural enterprise development to create a more resilient and inclusive agricultural sector.

RACP will be implemented in five provinces: Matabeleland North, Midlands, Mashonaland West, Matebeleland North and Mashonaland East. In Matabeleland North, the targeted Districts are Hwange, Lupane, Binga and Nkayi, which are within the Gwayi catchment. This catchment combines high climate vulnerability with significant agricultural potential, but it remains underserved in irrigation, storage and market infrastructure. The districts are home to more than 6.6 million people, the majority of whom are smallholder farmers who are dependent on rainfed agriculture.

The overarching goal of RACP is to enhance climate resilience, agricultural productivity and inclusive rural development. Specifically, the project seeks to:

- Improve water availability and irrigation efficiency through rehabilitation of schemes, water harvesting and solar-powered systems, addressing critical issues such as, broken and aging infrastructure, water supply challenges insufficient sanitation and social infrastructure at Lukosi, Msuna and Tshongokwe irrigation schemes
- Strengthen agricultural value chains by upgrading feeder roads, constructing markets and establishing post-harvest facilities with cold storage at Lukosi irrigation scheme.

- Promote sustainable catchment and land management through afforestation, gully reclamation and soil conservation measures in Tshongokwe Scheme.
- Enhance climate risk preparedness via early warning systems, weather index insurance and ICT-based alerts.
- Support social inclusion by prioritising women, youth and vulnerable groups in governance structures, training programmes and rural enterprises, which includes specific technical system conversions to ensure equitable participation of women and the elderly in Tshongokwe Irrigation Scheme

The project is anchored in the MLAFWRD and will be managed by a Project Implementation Unit (PIU) supported by provincial and district agricultural extension structures. It will collaborate closely with catchment councils, Rural District Councils (RDCs) and farmer-based organisations. Development partners, non-governmental organisations and the private sector will provide technical and financial support, particularly in value chain development and climate-smart technologies.

RACP directly contributes to Zimbabwe's National Development Strategy 1 (NDS1), National Climate Policy and commitments under the Paris Agreement and the Sustainable Development Goals (SDGs), particularly SDG 2 (Zero Hunger), SDG 6 (Clean Water), SDG 13 (Climate Action) and SDG 15 (Life on Land). Investing in resilient agriculture supports Zimbabwe's ambition to achieve middle-income status by 2030, as outlined in Vision 2030.

In response to climate shocks, land degradation and failing irrigation systems in Binga, Hwange, Nkayi and Lupane districts (Lukosi, Msuna and Tshongokwe Irrigation schemes), the Government of Zimbabwe, through MLAFWRD, has initiated RACP to formalise and scale up climate-smart smallholder agriculture. The project will rehabilitate irrigation schemes, establish solar-powered Village Business Units and household water harvesting systems, and restore degraded catchments under structured Environmental and Social Management Plans (ESMPs), thereby enhancing productivity while stabilising soils and landscapes in alignment with Section 97 of the Environmental Management Act [Chapter 20:27]. This includes mandatory WASH infrastructure construction to eliminate public health risks (e.g., at Chippa and Tsakare) and the installation of security fencing and cages to combat infrastructure theft across all seven sites. The Ministry has commissioned the Scientific and Industrial Research and Development Centre (SIRDC) through its Environmental Science Institute (ESI) to undertake the required Environmental and Social Management Plan (ESMP) studies and

prepare the associated reports, reflecting its commitment to high standards of health, safety and environmental stewardship.

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 Matebeleland North, 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 four catchments, with a focused emphasis on the specific conditions found in Matebeleland North.

Beyond compliance, the ESMP serves a strategic role in mainstreaming cross-cutting 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 Matebeleland North Province.

1.4 Geographic Scope

The Resilience Agriculture Cluster Project (RACP) will be implemented across Matebeleland North, covering 4 climate-vulnerable districts distributed across Gwayi catchment area. Manyame and Mazowe (see Figure 1).

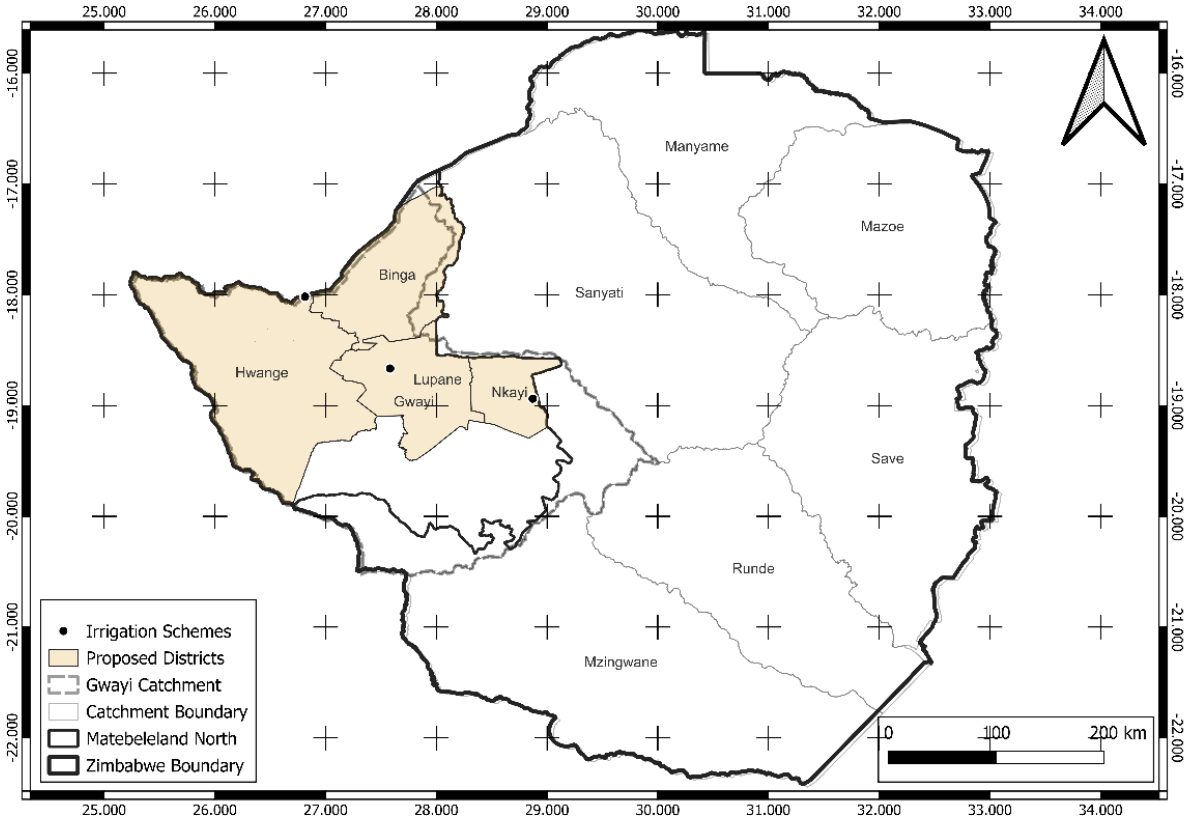

Figure 1: Location Map

These areas were selected based on their high exposure to climatic hazards, significant reliance on rain-fed agriculture, and the presence of under-utilised but potentially productive irrigation and market systems. Within each province, the project targets specific districts: Binga, Hwange, Nkayi and Lupane in Matebeleland North. A list of some of the proposed irrigation schemes earmarked for resuscitation is given in Table 5. Collectively, these districts are home to about 600 000 people, the majority of whom are rural smallholder farmers who are dependent

on mixed crop livestock systems. (cattle, goats, and poultry), along with supplementary activities like petty trading and casual labour.

The catchments represent distinct biophysical settings. Mazowe traverses productive Highveld zones with a history of smallholder irrigation and high-value crop production. By spanning these diverse agro-ecological zones, the project is positioned to address region-specific vulnerabilities while creating a coherent framework for climate-smart and inclusive agricultural development, particularly in Matebeleland North. It anticipated that the RACP will extend to two more districts, Binga and Nkayi, upon approval by relevant local leadership and administration.

The ESMP covers all major components of the RACP project area within the Matebeleland North geographical scope, which include rehabilitation and modernisation of irrigation systems, upgrading of feeder roads and market facilities, establishment of solar-powered Village Business Units, restoration of degraded catchments and provision of climate information services. It also applies to associated activities such as capacity building, stakeholder engagement, and the operation and maintenance of project-supported infrastructure.

Table 5: Proposed Irrigation Schemes

Province	**District**	**Irrigation Scheme**
Matebeleland North Province	Lupane	**1.** Tshongokwe
	Hwange	**2.** Lukosi **3.** Msuna

1.5 Project Justification

Agriculture remains the cornerstone of Zimbabwe's economy and a critical source of livelihood for the majority of the rural population, contributing significantly to food security, employment, and national income. However, this vital sector faces growing structural and climate-related challenges that threaten its productivity and long-term sustainability. Across Matabeleland North is a province characterised by semi-arid conditions, fragile soils, and high climatic variability, with intensified impacts of climate change, and more frequent droughts, erratic rainfall patterns, and rising temperatures disrupting traditional farming cycles. These climatic shocks are compounded by widespread land degradation, declining soil fertility,

siltation of water bodies, and the progressive loss of vegetation cover, all of which reduce agricultural potential and undermine ecosystem resilience.

Smallholder farmers, who constitute the backbone of rural production systems in Matabeleland North, are particularly vulnerable. Most depend on rain-fed agriculture, leaving them exposed to rainfall variability and prolonged dry spells that severely limit crop yields and livestock productivity. Water scarcity, coupled with deteriorating irrigation infrastructure, constrains the expansion of irrigated agriculture, a key adaptation strategy for climate resilience.

At the same time, persistent gender inequalities and youth marginalisation continue to constrain equitable participation in decision-making, resource allocation, and rural enterprise development. Without a comprehensive and coordinated intervention that addresses these interconnected challenges, rural livelihoods in Matabeleland North will remain trapped in a cycle of low productivity, vulnerability, and poverty, and these conditions are likely to worsen under future climate scenarios.

The Resilience Agriculture Cluster Project (RACP) has been designed as a transformative response to these systemic challenges, integrating climate-resilient infrastructure investments with inclusive institutional, technological, and market development approaches. At its core, the project seeks to rehabilitate and modernise existing irrigation schemes, expand water harvesting and storage infrastructure, and restore degraded catchments to improve water availability and land productivity. These physical interventions are complemented by the development of post-harvest and market infrastructure, including cold storage facilities and feeder road upgrades, to strengthen value chains, reduce losses, and improve market access for smallholder producers.

In addition, RACP places strong emphasis on enhancing adaptive capacity through climate information services, early warning systems, and weather-index insurance, providing farmers and local institutions with the tools to anticipate and respond to climatic risks. Targeted capacity-building programmes will strengthen water user associations, irrigation management committees, and local governance structures, ensuring effective operation and maintenance of infrastructure and equitable resource distribution. Gender equality and youth empowerment are central to the project’s design, with deliberate measures to promote their participation in governance structures, access to productive assets, and engagement in emerging rural enterprises.

The project's integrated design aligns closely with Zimbabwe's national development agenda, including Vision 2030, which aims to achieve upper middle-income status through inclusive and sustainable economic growth, and National Development Strategy 1 (NDS1), which prioritises climate resilience, food security, and agricultural modernisation. It also complies with the safeguard policies and performance standards of the African Development Bank's Integrated Safeguards System (ISS) and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), ensuring that all interventions meet international best practice requirements for environmental sustainability, social inclusion, and risk management.

Building on the successful experiences and lessons of the Smallholder Agriculture Cluster Project (SACP), RACP adopts a cluster-based approach that leverages synergies between infrastructure, institutional capacity, market access, and natural resource management. By integrating environmental, social, and economic objectives, the project aims not only to enhance productivity and income but also to deliver co-benefits such as biodiversity conservation, catchment restoration, and improved nutrition.

In this context, the project is justified as a timely, strategic, and catalytic intervention to reverse environmental degradation, strengthen adaptive capacity, and unlock the productive potential of smallholder agriculture in Matabeleland North and beyond. By embedding sustainability, inclusivity, and climate resilience into the heart of rural development, RACP will play a pivotal role in transforming Zimbabwe's agricultural sector into a dynamic driver of food security, poverty reduction, and sustainable growth.

1.6 Project Description

The Resilience Agriculture Cluster Project (RACP) is a strategic investment targeting climate-proof agriculture across Zimbabwe's most vulnerable yet agriculture-potential districts. Built as a scaled expansion of the Smallholder Agriculture Cluster Project (SACP), it integrates infrastructure rehabilitation, catchment restoration and inclusive value chain development to transform smallholder farming in Matebeleland North for three identified irrigation schemes (Lukosi, Msuna and Tshongokwe) that are implemented in an environmentally and socially manner, in compliance with national legislation and AfDB/IFAD safeguard policies.

2.0 OVERVIEW

The Resilience Agriculture Cluster Project (RACP) is a flagship climate-resilient agricultural development programme spearheaded by the Government of Zimbabwe in partnership with the African Development Bank (AfDB) and the International Fund for Agricultural Development

(IFAD). It is designed to transform Zimbabwe's smallholder agriculture from a subsistence-based system into a market-oriented, climate-smart, and nutrition-sensitive sector, while strengthening the resilience of rural livelihoods to climate variability and economic shocks. Building on the foundations and lessons of the Smallholder Agriculture Cluster Project (SACP), RACP scales up investments in infrastructure, institutional capacity, and value chain development to deliver inclusive and sustainable growth in some of the country's most vulnerable agricultural regions, including Matabeleland North. The overall goal of RACP is to increase household incomes, enhance food and nutrition security, and build adaptive capacity among smallholder farming communities through climate-proofed production systems and improved market integration. The project's total cost is estimated at USD 77.2 million, co-financed through a grant from the AfDB's Climate Action Window (CAW) and Government of Zimbabwe contributions, with additional support from the private sector and community stakeholders.

2.1 Beneficiaries, Affected Persons and Vulnerability Status

The rehabilitation of the Tshongokwe (Lupane District), Lukosi and Msuna (Hwange District) irrigation schemes under the Resilience Agriculture Cluster Project (RACP) will directly benefit approximately 97 smallholder farmers, the majority of whom are women (about 75–80%). Beneficiaries are drawn from poor, rural households that rely heavily on irrigation for food security, income generation and resilience to climate variability.

Across the three schemes, a high proportion of beneficiaries are female-headed households, with additional vulnerable groups including elderly persons, low-income households, and at least one person with a disability. Youth participation is currently low, indicating the need for targeted inclusion measures during project implementation.

The project is not expected to cause physical or economic displacement, and all potential adverse impacts are anticipated to be temporary, localised and reversible, mainly occurring during construction activities. Affected persons are limited to scheme members and may experience short-term access restrictions or minor disruptions.

In line with IFAD SECAP and RACP safeguard principles, the project adopts a do-no-harm approach, prioritises gender equality and inclusion of vulnerable groups, and incorporates mitigation measures through the ESMP, including stakeholder engagement, accessible grievance redress mechanisms and monitoring of gender and vulnerability indicators.

RACP's approach is structured around three interlinked components, each addressing critical constraints along the smallholder agricultural transformation pathway:

1. **Inclusive, Climate- and Nutrition-Sensitive Value Chain Development**
   This component focuses on building stronger and more competitive agricultural value chains by empowering smallholder producers, farmer organisations, and agribusinesses. It supports the mobilisation, technical training, and governance strengthening of Agricultural Producer Groups (APGs) to improve their capacity to participate in high-value markets. Matching grants, concessional finance, and targeted incentives will be deployed to catalyse private-sector investments in value chains such as sorghum, millet, sunflower, sesame, citrus, beef, poultry, and piggery. Key interventions include capacity building in business development, marketing, and financial literacy; facilitation of smallholder access to quality inputs and climate-smart production technologies; and support for agro-processing, storage, and distribution infrastructure to increase value addition and competitiveness.
2. **Climate-Proofing of Productive and Domestic Infrastructure**
   Recognising the centrality of water and infrastructure to resilient agricultural systems, this component prioritises the rehabilitation, expansion, and modernisation of essential rural infrastructure. Major investments will target the rehabilitation of existing irrigation schemes to enhance water use efficiency, reliability, and equity in water distribution. The project will also establish solar-powered boreholes, multipurpose water points, and rainwater harvesting systems to improve water availability for both productive and domestic uses, particularly in climate-stressed areas. Complementary infrastructure such as livestock watering points, nutrition gardens, and feeder roads will be constructed or upgraded to support integrated farming systems, reduce transaction costs, and enhance access to input and output markets.
3. **Strengthened Institutional Capacities for Climate Governance and Finance**
   To sustain climate resilience beyond the project's implementation period, RACP invests in strengthening the institutional and policy environment for climate risk management and disaster response. This includes establishing a national Resilience Platform to coordinate adaptation and resilience-building efforts across government, development partners, and the private sector. The component also supports the development of national and sub-national climate finance strategies, enabling

Zimbabwe to access and manage climate finance more effectively. Capacity-building programmes will target government institutions, civil society organisations, and local governance structures to improve planning, budgeting, and policy implementation for disaster risk reduction, adaptation, and resilience financing.

By integrating these three pillars: value chain competitiveness, climate-resilient infrastructure, and institutional strengthening, RACP represents a holistic and forward-looking approach to rural transformation. It not only addresses immediate productivity and livelihood challenges but also lays the foundation for long-term climate resilience, environmental sustainability, and inclusive economic growth in Matabeleland North and across Zimbabwe's agricultural heartlands.

In Matebeleland North, specifically Hwange and Lupane Districts, the baseline situation shows a semi-arid climate with annual rainfall of 500–650 mm, average temperatures of 10–35°C (see 4.1.2 Climate), and sandy to loamy soils of medium to low fertility. Populations rely heavily on rain-fed agriculture and livestock, with limited infrastructure grid electricity coverage is 20–30% and roads are mostly gravel. Existing smallholder irrigation schemes (e.g., Msuna, Lukosi, Tshongokwe) face challenges including water scarcity, aging infrastructure, theft of transformers/cables, and frequent power outages. Alternatives to improve irrigation include grid-only connections, diesel generators, solar-grid hybrid systems with security hardening, rainwater harvesting and micro-catchment storage, and conversion to drip/micro-irrigation. Consultations highlighted the need for reliable, low-maintenance solutions that ensure equitable access while minimizing environmental impacts such as soil erosion and water contamination.

2.1.1 Irrigation and Water Systems

RACP will rehabilitate and modernise approximately 64.7 hectares of irrigation schemes in Matebeleland North. The hectares covered by each scheme are shown in Table 6.

Table 6: Hectarage Covered by Each Irrigation Scheme

District	Irrigation Scheme	Location	Hectares
Hwange	Msuna	18°01'00"S and 26°48'49"E	24.2
	Lukosi	18°56'18"S and 28°52'13"E	28.5
Lupane	Tshongokwe	18°39'56"S and 27°34'57"E	12

Facilities at Tshongokwe Irrigation Scheme, water supply depends on Tshongokwe Dam, which is silted and experiences low inflows in dry months, supplemented by solar-powered boreholes (see Plate 1).The drip and border-strip systems will be repaired or replaced to stop leakage, while drainage structures will be introduced to reduce waterlogging and crop damage.

Many existing irrigation schemes in the province operate below capacity or have become non-functional due to inadequate maintenance, damaged conveyance systems, obsolete pumps, and sedimentation in dams and canals (see Plate 1, Plate 2, and Plate 3). These physical constraints are further exacerbated by socio-economic challenges, including limited access to credit, low adoption of climate-smart technologies, weak extension services, and a lack of tailored capacity-building support for smallholders.

a.

b.

Plate 1: Main Conveyance Systems Components at Tshongokwe Irrigation Scheme

Facilities at Lukosi Irrigation Scheme

The Lukosi Irrigation Scheme facilities, which utilize a Border Strip Surface Irrigation system, are primarily gravity-fed from the upstream Kalope Dam, meaning there is no pumping unit. The head works control is managed by two 320mm Cast Iron (CI) gate valves and a Woltman Helix turbine water meter used for flow measurement. Water is conveyed through a 300mm AC pipeline from the dam wall, which feeds into a network of 500mm lined trapezoidal canals and subsequently 250mm lined trapezoidal canals.

Water delivery relies on Kalope Dam, which has been heavily silted and is at risk of contamination from upstream mining activities. RACP will finance desilting of the dam, establish a routine monitoring system for water quality, and rehabilitate the main conveyance pipeline and infield canals, which currently leak and lose substantial volumes of water. The absence of drainage has led to waterlogging and soil damage, which will be corrected through new drainage channels and soil conservation structures Plate 2 Perimeter fencing will be replaced to prevent livestock intrusion, while potable water and sanitation systems will be upgraded to restore public health standards.

a.

b.

Plate 2: Lukosi Canals, Control Plates and Stilling Basin and Old Float Tide Gauge

Facilities at Msuna Irrigation Scheme

The irrigation scheme utilizes a Sprinkler Irrigation System, abstract water directly from the Zambezi River. The head works consist of a pumping unit responsible for lifting water from the river. Water is conveyed to the fields via the conveyance system. The scheme features essential infrastructure, including a functional shed for storage or shelter and an unlined fish pond used as support infrastructure. Other key components include the existing infield roads and drains, a perimeter fence, and designated infrastructure for Water and Sanitation (WASH), which are common to the other schemes and are earmarked for improvement Plate 3.

Situated along the Zambezi River, lifts water through ageing submersible electric pumps vulnerable to breakdowns and unstable power supply. The project will replace these with energy-efficient hybrid systems and supplement them with solar-powered pumps to ensure a steady supply. The infield drag-hose sprinklers and HDPE conveyance network will be modernised to reduce losses (see **Error! Reference source not found.**). The scheme's p roximity to the Zambezi presents expansion opportunities, and RACP will provide technical support to optimise water abstraction without compromising river health.

a.	b.

Plate 3: Water Abstraction Point at the Zambezi River and Components of the Sprinkler System

Infrastructure deficits beyond the farm gate present additional barriers to agricultural transformation. Poorly maintained feeder roads restrict farmers' ability to transport produce to markets, increasing post-harvest losses and lowering farm gate prices. The absence of modern storage and processing facilities results in high levels of food spoilage, especially for perishable crops such as horticultural products, while weak linkages to value chains limit income diversification opportunities.

2.1.2 Market and Post-Harvest Infrastructure

The irrigation schemes under review are currently grappling with substantial post-harvest and market access challenges, which continue to undermine agricultural productivity and farmer incomes. At Lukosi, access to markets is severely constrained by deteriorating feeder roads and the absence of cold storage infrastructure. To address these issues, the Resilience Agriculture Cluster Project (RACP) will rehabilitate the feeder road linking the scheme to the tarred main road, install solar-powered cold storage facilities, and establish structured market points to facilitate efficient produce handling and distribution.

In Msuna, although the scheme holds strong potential to supply nearby tourism hubs and urban centres, farmers lack organised market facilities and adequate storage capacity. RACP will respond by establishing a post-harvest centre equipped with cold storage and by strengthening linkages with private sector off-takers to improve market integration and value chain participation.

Tshongokwe farmers have reported frequent losses of perishable commodities due to the absence of structured markets and inadequate post-harvest handling. The programme will construct a market shed, integrate the scheme into regional market networks, and support

transport logistics to ensure the timely and efficient movement of goods to market. Nkayi faces similar constraints, with poor feeder roads and a lack of organised market infrastructure limiting farmers' ability to realise full value for their produce. RACP will upgrade rural roads, establish market sheds at ward centres, and promote aggregation models that connect farmers to regional markets such as Bulawayo. Cold storage facilities will also be introduced to reduce post-harvest losses and improve the shelf life of perishable commodities. To overcome these barriers, the project will provide basic storage and market infrastructure, including mobile sheds and improved feeder roads, thereby linking producers to strategic markets in Hwange and Victoria Falls.

2.1.3 Catchment and Landscape Restoration

Siltation of dams and erosion of riverbanks are pressing environmental concerns across the three irrigation schemes, Lukosi, Msuna, and Tshongokwe. In Lukosi, catchment degradation around Kalope Dam, driven by vegetation clearance and overgrazing, has reduced storage capacity and destabilised soils. Msuna faces erosion along the Zambezi River banks due to uncontrolled livestock access, while Tshongokwe.

experiences siltation from upstream cultivation. To address these challenges, the Rural Agricultural Competitiveness Programme (RACP) will implement a suite of interventions, including tree planting, stone bund construction, vegetative filter strips, community-led gully reclamation, rotational grazing, conservation agriculture, and the establishment of nurseries and community woodlots to restore degraded landscapes and protect water catchments.

2.1.4 Climate Information and Early Warning Systems

All districts of interest for RACP in Matebeleland North lack reliable, site-specific climate information. RACP will install automated weather stations in all districts to provide rainfall forecasts, pest alerts, and flood warnings. These will be linked to an ICT platform accessed by farmers through mobile phones and community notice boards. Extension officers will be trained to interpret and disseminate this information, while farmer groups will be piloted into weather-index insurance schemes to buffer losses from droughts or floods.

2.1.5 Capacity Building and Social Inclusion

The Rural Project Areas (RPAs) observed that Irrigation Management Committees (IMCs) are established at all three existing schemes, Lukosi, Msuna, and Tshongokwe, but face notable gaps in technical and financial management capacity. To strengthen institutional performance, the Rural Agricultural Competitiveness Programme (RACP) will deliver structured training

covering governance, financial record-keeping, infrastructure operation and maintenance, and environmental safeguards. At Lukosi, support will focus on formalising an operations and maintenance (O&M) fund and enhancing monitoring of drainage and waste systems. In Msuna, training will prioritise pump maintenance and safe water abstraction, while at Tshongokwe, modules will address sanitation, equitable water distribution, and improved record-keeping. Social inclusion remains central to the programme, with a minimum of 50 percent of IMC seats reserved for women and at least 30 percent for youth, promoting equitable participation in leadership and capacity-building.

2.1.6 Integration and Sustainability

Applying the Mitigation Hierarchy in Design Rationale

The Resilience Agriculture Cluster Project (RACP) has been designed as a coherent package in which irrigation rehabilitation, catchment restoration, market infrastructure, and institutional support are delivered in a complementary manner. This approach ensures sustainability and resilience by integrating environmental and social management directly into the project's design rationale, guided by the sequential application of the Mitigation Hierarchy (Avoid, Minimize, Restore, Offset).

1. Avoidance

The project prioritizes Avoidance to prevent negative impacts from occurring in the first place. The design rational directly applies this principle by:

- **Rejecting Greenfield Development:** The decision is to pursue rehabilitation in-place (Option A) and reject the "Greenfield New Schemes" alternative. This design choice immediately avoids new land acquisition, the risk of involuntary resettlement, and disturbance of new critical habitats outside the existing scheme footprints.
- **Scheduling Construction:** Major construction activities (e.g., pipe laying, pump replacement) are scheduled during the dry season or off-season. This avoids disruption to the farmers' planting and harvesting cycles, thereby mitigating the risk of income loss and food insecurity.

***2*. Minimization**

Where impacts cannot be avoided, the project design employs Minimization measures to reduce their duration, intensity, or extent, often targeting the technical inefficiencies identified by the RPA reports:

- **Water Consumption:** The conversion of inefficient surface irrigation systems (Lukosi, Tshongokwe) to water-saving pressurized systems (drip/sprinkler) serves as the primary minimization measure. This directly reduces water consumption, minimizing pressure on water sources like Kalope Dam.
- Energy Use and Costs: The conversion of pumping units to Solar Power (Tshongokwe, Msuna) minimizes operational costs, maximizes efficiency, and significantly reduces the project's carbon footprint.
- Localized Re-routing: Targeted partial re-routing of defective assets (e.g., undersized mainlines, flood-prone pump houses) minimizes hydraulic inefficiency and damage without expanding the overall project footprint.

3. Restoration/Rehabilitation

The project is structured to include actions that actively restore and rehabilitate degraded components back to functional or improved states:

- **Catchment Restoration:** Rather than treating interventions as stand-alone activities, irrigation investments are paired with upstream soil and water conservation (SWC) measures. This restores the environmental integrity of the water sources by protecting against siltation and land degradation.
- **WASH and Infrastructure:** The project includes the rehabilitation and upgrade of inadequate WASH facilities and the repair of damaged potable water pipes (Lukosi), restoring essential public health and social standards.

4. Offsetting (for Residual Impacts)

Offsetting addresses any residual, unavoidable adverse impacts that remain after the first three measures. For the RACP, this principle is generally met by ensuring project design leads to a net positive outcome. Any minor, temporary environmental impacts resulting from civil works will be offset through integrated SWC and afforestation programs within the catchment areas.

Sustainability

This application of the mitigation hierarchy ensures the physical and environmental integrity of the schemes. Sustainability is further secured by embedding the operation and maintenance of schemes into existing governance and service delivery structures. Provincial extension services will provide continuous technical backstopping, ZINWA catchment councils will

oversee water allocation and dam management, and Rural District Councils will integrate scheme needs into local development plans. Irrigation Management Committees will serve as the primary custodians of scheme-level systems, but their capacity will be reinforced through formal linkages to these statutory institutions. By ensuring that the physical, institutional, and economic dimensions of the project are mutually reinforcing, RACP will create irrigation schemes that are not only rehabilitated but also resilient, market-connected, and institutionally anchored long after project closure.

2.1.7 RACP Project Phases

The implementation of the Resilience Agriculture Cluster Project (RACP) will proceed through four sequential phases. Each phase is designed to ensure that environmental and social safeguards are embedded from the outset and sustained throughout the project lifecycle.

2.1.7.1 Planning Phase

This phase entails detailed site identification, feasibility assessments and detailed engineering designs for irrigation schemes, VBUs, water harvesting structures, feeder roads and market facilities. It also covers the preparation of this province-specific Environmental and Social Management Plans (ESMP) in line with AfDB ISS and IFAD SECAP requirements. Stakeholder consultations with catchment councils, Rural District Councils (RDCs), and community representatives are undertaken to confirm site selection and integrate local priorities into designs.

2.1.7.2 Construction Phase

This phase covers the execution of civil works for the rehabilitation and upgrading of irrigation schemes (canals, solar-powered pumps), the installation of solar-powered VBUs and SBUs, construction of rainwater harvesting structures, and upgrading of feeder roads, drainage, sanitation and market infrastructure. It includes implementing site-specific environmental mitigation measures, such as erosion control, dust suppression, waste management and occupational health and safety plans. Contractors will be monitored to ensure adherence to ESMP provisions and national environmental standards.

2.1.7.3 Operation Phase

Once infrastructure is completed, the project enters the operation phase, focusing on the productive use and maintenance of irrigation and water systems, post-harvest centres, and market facilities. Farmers and local institutions will apply climate-smart agriculture techniques,

utilise early warning information, and pilot weather-index insurance schemes. Monitoring of environmental and social indicators continues, with adaptive management to address emerging risks or opportunities. IMCs will enforce O&M plans, manage waste and sanitation, and track financial records.

2.1.7.4 Decommissioning and Site Restoration Phase

This phase addresses the closure of temporary works, removal of construction camps and reinstatement of disturbed sites to their original or improved condition. Activities include backfilling borrow pits, reshaping and stabilising embankments, replanting trees, and restoring natural vegetation. 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.

2.2 Location of the Irrigation Schemes

RACP project sites were selected on the basis of their agricultural potential, vulnerability to climate change and current deficits in irrigation, storage and market infrastructure (see Figure 2 to Figure 4).

- **Kulima Mbobumi (Msuna) irrigation scheme** is located in Msuna communal lands in the administrative district of Hwange, Matabeleland North, Zimbabwe. To access the scheme, you travel towards the east from Hwange town for approximately 100Km. The scheme is approximately 1Km from the main road and is located on grid reference 18° 01' 00" S and 26°48'49" E.
- **Lukosi irrigation scheme** is located in Change communal lands, Ward 20 of the administrative district of Hwange in Matabeleland North, Zimbabwe. It is accessed by travelling on the Hwange to Bulawayo highway for approximately 30Km and turning left, using a tarred road for 3Km towards the east to Lukosi irrigation scheme. Lukosi irrigation is located on grid reference 18°56'18" S and 28°52’13" E.
- **Tshongokwe irrigation scheme** is located in the administrative district of Lupane in Matabeleland North, Zimbabwe. It is accessed by travelling on the Bulawayo to Hwange highway coming from Lupane for approximately 30Km and turn right on the Jotsholo turnoff. On the Jotsholo road using a tarred road one travels for 6Km and 4Kms on gravel road to reach to Tshongokwe Irrigation Scheme. Tshongokwe irrigation scheme is located on grid reference 18°39'56"S and 27°34'57"E

Plate 4: Msuna Irrigation Scheme

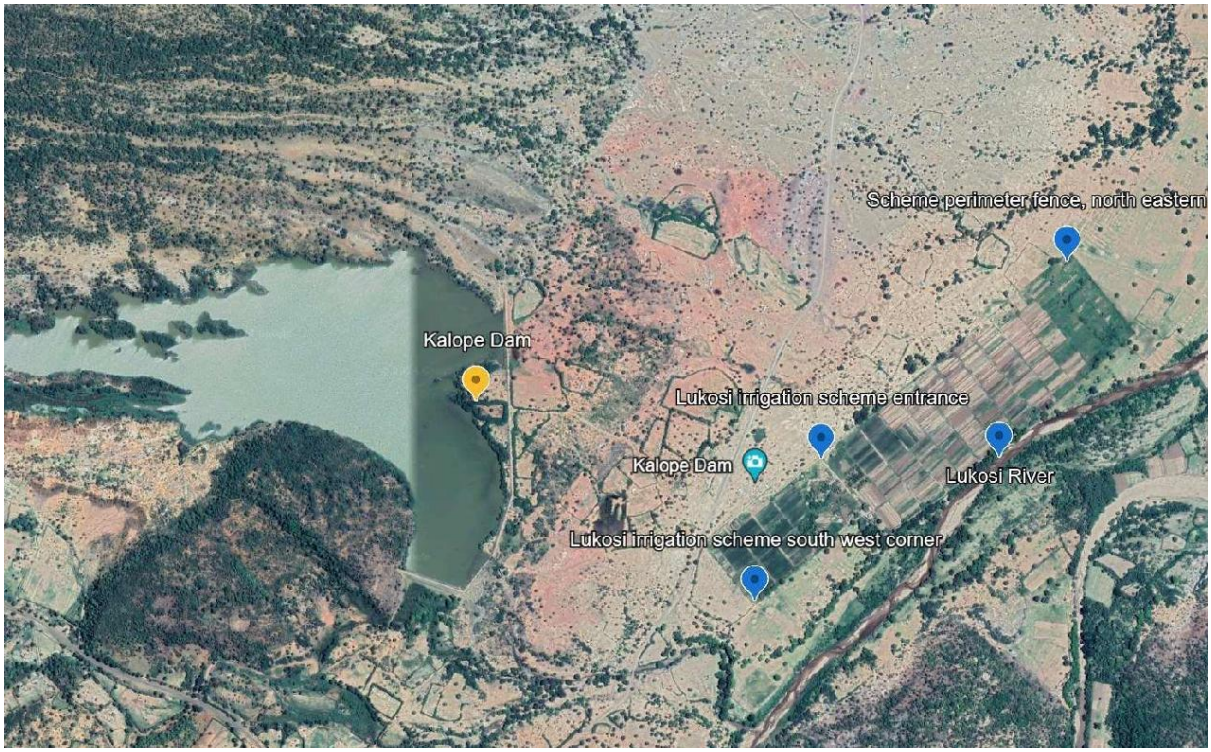

Plate 5: Lukosi Irrigation Scheme

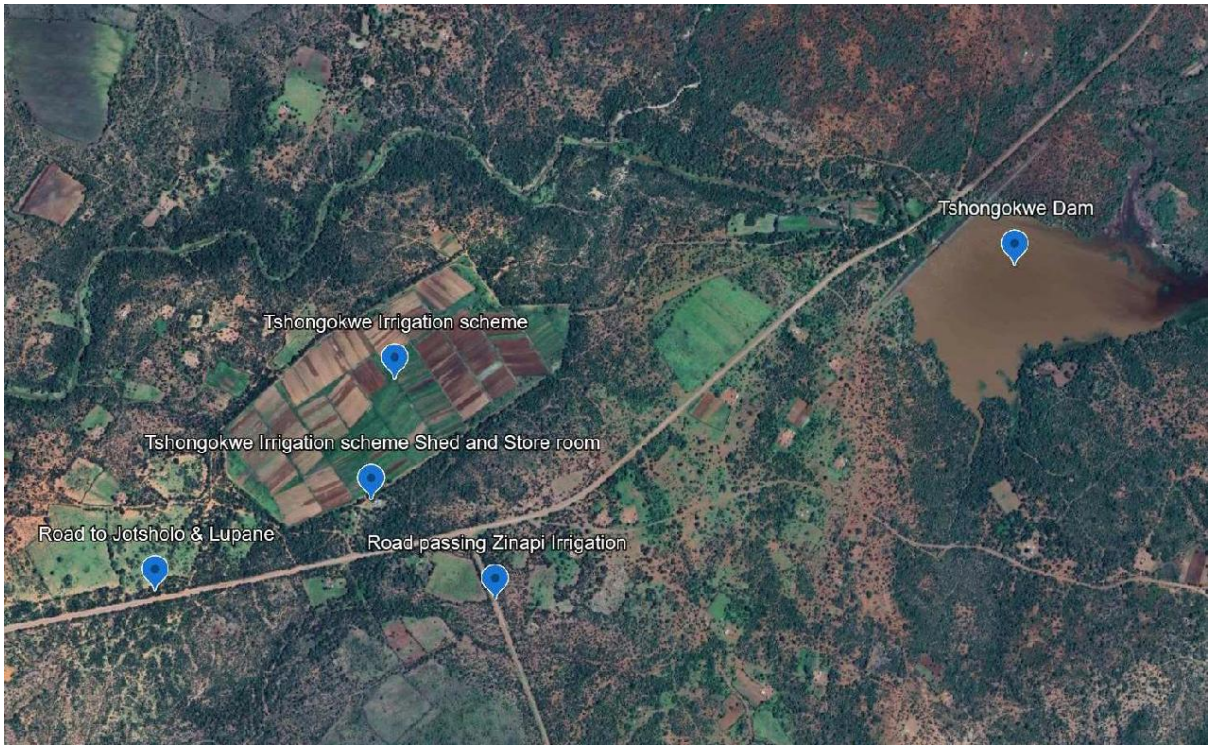

Plate 6: Tshokongwe Irrigation Scheme

Hwange District: the layouts for Lukosi and Msuna Irrigation Schemes will be redesigned to correct long-standing inefficiencies (Plate 4, Plate 5) At Lukosi, the gravity-fed distribution system from Kalope Dam will be realigned and reinforced with drainage infrastructure, while infield canals will be lined to minimise leakage. At Msuna, layouts will integrate new solar-hybrid pumping stations and improved sprinkler systems, coupled with road access upgrades that link the scheme to local markets. Both layouts will incorporate designated waste disposal zones, sanitation facilities, and clearly defined emergency assembly points to address environmental health and safety concerns raised in the RPAs.

Lupane District: Tshongokwe Irrigation Scheme will be redesigned around a revitalised Tshongokwe Dam and borehole system (Plate 6). Infield layouts will replace leaking drippers with more efficient units, introduce drainage channels to prevent waterlogging, and strengthen perimeter fencing to control livestock access. Market sheds and sanitation facilities will be built into the design to ensure that production and post-harvest handling are integrated.

2.3 Management Systems

RACP irrigation schemes will be governed by integrated environmental and social management systems that align with Zimbabwe's Environmental Management Act [Chapter 20:27], IFAD's Social, Environmental and Climate Assessment Procedures (2021), and the

African Development Bank's Integrated Safeguards System (2023). These systems will be operationalised through Irrigation Management Committees (IMCs), which will be capacitated to enforce site-specific protocols for waste management, emergency preparedness, water storage operation, and sanitation. The RACP builds on these insights by embedding preventive and corrective management practices into scheme-level operations.

2.3.1 Waste Management

Each scheme will develop a Waste Management Plan approved by EMA, covering segregation, collection, temporary storage, recycling, and final disposal. In Matabeleland North, the RPAs found accumulation of damaged irrigation pipes, concrete rubble and used oil at Lukosi and Msuna, as well as poor handling of plastic mulch and fertiliser packaging at Tshongokwe. To address this, RACP will promote reuse and recycling wherever feasible, for example, reusing broken concrete in canal reinforcement and transferring only non-recoverable waste to licensed EMA facilities.

2.3.2 Emergency Preparedness

All schemes will develop an Emergency Preparedness and Response Plan aligned with district-level disaster risk management protocols. Training will encompass safe shutdown procedures for pumping units, rapid response to floods and storm damage, first aid, and protocols for managing chemical or fuel spills. Assessments conducted in Msuna and Senkwasi revealed a lack of clear evacuation signage and designated assembly points. To address this, RACP will ensure that each site is equipped with visible evacuation signage, clearly marked assembly points, and community-based early warning systems. These systems will include WhatsApp groups linked to the Meteorological Services Department, allowing farmers to receive timely alerts regarding extreme rainfall and potential flooding events.

2.3.3 Water Storage Operation and Management

Where storage facilities exist, such as Kalope Dam at Lukosi and Tshongokwe Dam in Lupane, regular maintenance will be essential to protect water quality and prolong infrastructure lifespan. Management will involve periodic desilting, vegetative stabilisation of embankments, and routine inspection of inlets and outlets to prevent blockages. Fencing will be maintained to control livestock access, a recurrent problem identified in Lukosi. Sediments removed will be deposited in designated spoil sites to prevent turbidity downstream.

2.3.4 Trail Waste Management

Routine maintenance activities such as canal clearing, pump servicing, and infield works generate “trail waste,” including vegetative debris, silt, and small concrete fragments. At sites like Tshongokwe, these materials have historically been left to block drains and contaminate irrigation water. RACP will enforce immediate collection and reuse of such materials, for example, using silt to strengthen bunds or vegetative matter as mulch. Where reuse is not possible, trail waste will be safely removed and disposed of in designated areas.

2.3.5 Sewage Treatment and Disposal

The RPAs identified poor sanitation at Lukosi and Msuna, where toilets were found dangerously close to water storage points. To prevent contamination, each scheme will ensure that sanitary facilities, including Blair latrines, septic tanks, and ablution blocks, are fully functional, properly lined, and located at safe distances from reservoirs and irrigation canals. Effluent will be treated on-site using compact package plants or sealed lined pits prior to infiltration. Under the supervision of the IMCs, regular inspections, desludging, and maintenance will be scheduled to minimise the risk of faecal contamination in irrigation water.

2.3.6 Solid Waste Management

Solid waste accumulation at irrigation sites includes agricultural residues, packaging materials, chemical containers, and household refuse. To address this, RACP will implement a “triple rinse, puncture, and return” policy for agrochemical containers, supported by formal recycling partnerships. IMCs will install clearly labelled bins for plastics, metals, and organic waste at scheme entry points and will coordinate quarterly clean-up campaigns in collaboration with local authorities. These efforts build on successful practices piloted under the Don Rungano initiative and will be replicated across the Hwange, and Lupane schemes.

2.4 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 Matebeleland province. Some of the funding sources include IFAD, GoZ, AGRITEX Table 7

Table 7: Project Costs

Cost Component	Key District-Specific Activities	Estimated Cost (USD)
Irrigation Infrastructure	Rehabilitation of Lukosi, Msuna and Tshongokwe (≈780 ha)	2,400,000.00
Solar-Powered VBUs/SBUs	20 units across districts (schools, business centres, agro-processing hubs)	700,000.00
Rainwater Harvesting Systems	200 household tanks & infiltration pits	440,000.00
Road-Water Harvesting Ponds	8 ponds along critical feeder roads	270,000.00
Feeder Road Upgrading	6 km of roads to market centres (linking Lukosi,Tshongokwe)	2,500,000.00
Mobile Market Sheds	4 sheds (Hwange, Lupane)	1,600,000.00
Post-Harvest Centres	1 centre with solar cold storage	3,040,000.00
Catchment Restoration	400 ha gully reclamation, stone bunds, erosion control	1,200,000.00
Tree Planting & Nurseries	1 million trees, 4 community nurseries (1 per district)	1,800,000.00
Weather Stations & ICT	10 automated weather stations linked to district extension offices	840,000.00
Capacity Building	Training of IMCs, RDC staff, farmer organisations (governance, CSA, O&M)	800,000.00
Gender & Youth Inclusion	District quotas, youth agribusiness incubation, and women in IMCs	240,000.00
Safeguards Implementation	Site-specific ESMPs, pest management (IPMP), labour management (LMP), OHS audits	260,000.00
Project Management & M&E	PIU sub-office coordination, monitoring, and audits	800,000.00
TOTAL ESTIMATED COST		**16,050,000.00**

2.5 Project Alternatives

The project alternatives chapter is tailored to addresses the potential project implementation option for RACP Matabeleland ESMP. It is anchored the community feasible choices for the irrigation rehabilitations across the 3 named schemes, catchment restoration, feeder roads/markets, and solar.

2.5.1 Purpose and Method

Alternatives were assessed to achieve RACP's objectives (restore/expand smallholder irrigation; reduce siltation; improve market access; embed social inclusion and OHS) while minimising adverse impacts and life-cycle costs. Screening covered: **(i)** "No Project," **(ii)** site/layout, **(iii)** irrigation technology, **(iv)** energy supply, **(v)** catchment restoration approach,

(vi) market access/post-harvest solutions, **(vii)** WASH siting/technology, **(viii)** waste/pollution management, and **(ix)** delivery/operation models.

Evaluation criteria (MCDA):

The evaluation criteria 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; O&M complexity),
4) Regulatory alignment (EMA, ZINWA permits, SECAP/ISS),
5) Economic efficiency (Capex/Opex; lifecycle), and
6) Implementation risk (theft/vandalism; land/conflict).

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

2.5.2 "No Project" Alternative

Description. Maintain status quo: This means that non-functional/under-performing pumps and mainlines, siltation of dams/weirs, weak market access, no WASH improvements, persistent load-shedding disruptions, limited inclusion gains will be maintained in that status of non-performance.

Consequences.

- **Environment:** Continued erosion, siltation and declining storage and water quality.
- **Social:** Ongoing gendered labour burdens; WASH deficits; safety risks from aging electricals; theft vulnerability.
- **Economic:** Lost production/income; high losses from poor post-harvest handling and transport.

Decision: Rejected as it is contrary to project purpose, national and partner priorities; and also fails ESMP's mitigation logic and planned benefits.

2.5.3 Site and Layout Alternatives

Options considered.

A. Rehabilitate existing schemes in-place- Retain the existing overall scheme footprints; optimize alignments; and repair or replace defective assets.

B. Greenfield new schemes - Develop entirely new schemes at new locations with new footprints and headwork's.

C. Partial re-routing/optimisation - Implement localized changes where necessary (e.g., re-site flood-prone pump houses; re-route leaky/undersized mainlines; avoid sensitive slopes/drains).

Findings

The RPA findings confirm that the current issues are primarily related to defective assets and inefficient technology, not the inherent location. This strengthens the case for in-place rehabilitation and targeted optimization.

- In-place rehabilitation (Option A) is essential to implement the core recommendation from the RPA: converting inefficient surface irrigation systems (Lukosi, Tshongokwe) to water-saving pressurized systems (drip/sprinkler). This change replaces old conveyance (canals) and infield layout (border strips) with new pipe networks but minimizes new land take.
- Partial re-routing/optimisation (Option C) is necessary for achieving specific hydraulic and resilience gains identified by the RPA:
    - Pumping Units (Msuna & Tshongokwe): Requires re-siting or upgrading to more efficient units (e.g., centrifugal units on portable trolleys) and integrating solar power, which requires a specific site layout for the solar array near the head works, minimizing flood risk.
    - Drainage Systems (Lukosi & Msuna): Requires pegging and construction of new or improved storm drains to ensure infrastructure integrity and prevent waterlogging, which necessitates minor modifications to the existing field layout.
    - Water Sourcing (Lukosi): The option of additional abstraction from the Lukosi River to supplement Kalope Dam supply is an example of partial optimization to increase water source resilience.

Decision

The ideal choice for the RACP in Matabeleland North is Option A (Rehabilitate existing schemes in-place), combined with targeted Option C (scheme-by-scheme optimisation).

Option B (Greenfield new schemes) is rejected as the current sites are technically viable, and Option B presents significantly higher Environmental and Social (E&S) risks, substantial increases in cost, and inevitable delays.

2.5.4 Irrigation Technology Alternatives

The analysis of Irrigation Technology Alternatives is crucial for the Resilience Agriculture Cluster Project (RACP) in Matabeleland North, as the core problem identified by the Rapid Participatory Appraisal (RPA) is the low water use efficiency of existing systems, which compromises productivity and climate resilience. The objective is to identify technology that minimizes water consumption while maximizing yields and farmer income.

Options Considered

A. Traditional/Inefficient Technology (Status Quo) - Retain and repair the existing irrigation technology, such as the current Border Strip Surface Irrigation or outdated Sprinkler systems.

B. Water-Saving Pressurized Systems (Preferred)- Modernize the schemes by converting to highly efficient, pressurized technologies: Drip Irrigation or Overhead Sprinklers.

C. Advanced/Mechanized Systems - Implement large-scale, highly mechanized technologies like **Centre Pivots**.

Findings

The findings demonstrate that

- Option A (Status Quo) is economically and environmentally unsustainable.
- Option B is highly effective for water saving and is socially appropriate for smallholder plots.
- Option C is reserved for schemes like Msuna where further study is needed due to the scale and water source (Zambezi River).

Decision The decision for the RACP is to adopt Option B (Water-Saving Pressurized Systems**)** as the standard, preferred technology alternative.

2.5.5 Energy Supply Alternatives

Option Set

A. Grid/Diesel Power (Status Quo)- Retaining the reliance on existing grid connections (where available) or supplementing with high-cost diesel generators for pumping.

B. Solar Power Conversion - Converting pumping units to be powered by dedicated Solar Photovoltaic (PV) arrays, either stand-alone or grid-tied.

C. Hybrid System - Utilizing a combination of grid power and solar, with diesel/battery backup.

Findings

- The schemes requiring pumping (Tshongokwe and Msuna) highlight the need for operational efficiency and sustainability.
- Tshongokwe specifically recommends that the new drip/sprinkler system should be "coupled with solar energy units." Relying on Option A results in high operating costs and energy insecurity.
- Option B offers long-term cost reduction and climate resilience, while Option C provides a reliable buffer but increases complexity.

Decision

The decision is Option B (Solar Power Conversion**)**, implemented as a core component of the scheme modernization. This directly addresses sustainability, reduces high operational costs, and minimizes the project's carbon footprint, while maximizing the benefits of the new, efficient pumping units recommended for Msuna and Tshongokwe.

2.5.6 Catchment Restoration Alternatives

Options

A. Infrastructure Rehabilitation Only (Status Quo)- Focusing on scheme infrastructure without addressing environmental challenges in the upstream catchment.

B. Upstream Soil and Water Conservation (SWC) Measures - Implementing non-structural measures like terracing, check dams, afforestation, and gully reclamation in the upstream catchment areas.

Findings

- For Tshongokwe explicitly states that "Upstream soil and water conservation measures are vital to safeguard land and water resources in the communities..."
- For schemes like Lukosi, which rely on dam water, continuous siltation of the water source is a major threat to long-term viability.
- Option A is rejected as it leads to a cycle of repeated scheme rehabilitation as water sources degrade.

Decision

The decision is Option B (Upstream Soil and Water Conservation Measures**)**. The RACP must integrate catchment restoration activities as a mandatory component for all schemes drawing water from dams or rivers to ensure the long-term sustainability and resilience of the water source.

2.5.7 Market Access & Post-Harvest Alternatives

Option

A. Individual Marketing - Farmers individually manage market research, sales, and transport.

B. Group Marketing and Linkages - Capacity building in group governance and marketing, facilitating reliable linkages to commercial buyers and processors.

C. Value Addition and Processing - Investing in on-site or nearby post-harvest facilities (e.g., grading, packaging, primary processing).

Findings

- There was identification of severe market access and post-harvest challenges. Lukosi requires training on "group governance and group marketing" and needs links to "reliable and viable markets."
- Msuna faces high risks from "Poor market research" and "Price fluctuations" and recommends assisting farmers to create linkages with viable, lucrative, and sustainable markets.
- Tshongokwe also recommends Market linkages, value addition, and business skills empowerment.

Decision

The decision is to combine Option B (Group Marketing and Linkages) and Option C (Targeted Value Addition). The project will prioritize capacity building and establishing formal market linkages, while also identifying specific, high-potential value addition activities to reduce post-harvest losses and maximize farmer income.

2.5.8 WASH Siting & Technology Alternatives

Option Set

A. Retain existing, inadequate, and non-functional facilities (e.g., dry taps, inadequate ablution).

B. Rehabilitation and Upgrade - Rehabilitate existing structures and install appropriate, technology for potable water and sanitation.

Findings

- Significant WASH deficiencies. Lukosi has "inadequate ablution facilities" and no potable water due to a damaged pipe.
- Msuna's recommendations include the need to "Ensure availability of potable water." The status quo (Option A) poses severe health and safety risks.
- Option B requires technical intervention (e.g., fixing pipes, drilling boreholes, constructing improved latrines) with minimal change to overall scheme layout.

Decision

The decision is Option B (Rehabilitation and Upgrade). The project will ensure the provision of functional, gender-sensitive ablution facilities and a reliable source of potable water for all schemes to safeguard public health and meet E&S standards.

2.5.9 Waste and Pollution Management Alternatives

A. Waste (construction debris, old equipment, domestic waste) is disposed of unsystematically.

B. Integrated Waste Management Plan (IWMP)- A plan that covers waste minimization, segregation, reuse, recycling (especially for e-waste and plastic pipes), and safe disposal.

Findings

The modernization phase (Option B for Irrigation Technology) will generate significant non-hazardous construction waste (canals/pipes) and hazardous e-waste (old pumps, electricals) at Tshongokwe and Msuna. (Option A) creates substantial environmental pollution and health risks. Option B is a required safeguard measure for large-scale civil works.

Decision

The decision is Option B (Integrated Waste Management Plan - IWMP). The project ESMP mandates that all contractors adhere to a detailed IWMP, including procedures for the safe handling and disposal/recycling of all construction and operational waste, particularly e-waste from replaced pumps and electrical equipment.

2.5.10 Construction Method and Scheduling Alternatives

A. Phased, Dry Season/Off-Season Scheduling- Construction is phased scheme-by-scheme and scheduled to occur during the dry season or outside of critical irrigation periods.

B. Simultaneous/Fast-tracked Schedule - All schemes begin construction simultaneously, regardless of planting seasons.

Findings

Due to the nature of the rehabilitation (converting canals to pipes, installing pumps), schemes must be fully or partially shut down.

- Option B would severely disrupt farming activities and create immediate food insecurity and farmer resistance.
- Option A minimizes economic loss by scheduling work during the off-season. Furthermore, the need to fast track the confirmation of schemes in Nkayi and Binga supports a well-managed phased approach.

Decision

The decision is Option A (Phased, Dry Season/Off-Season Scheduling). The project implementation will utilize a phased approach, prioritizing construction during the dry season or non-planting periods to minimize disruption to farmers' production cycles and avoid conflict over water use.

2.5.11 Delivery and Operation Model Alternatives

Option

A. Government/Agency-led Operation - Government agencies maintain responsibility for scheme management, governance, and major maintenance.

B. Scheme Management Committee (SMC)-led Operation - Transition to a decentralized farmer-owned, and managed system (SMC model) with strong capacity building and management plans.

C. Private Sector Management - Schemes are managed and operated by a third-party private entity.

Findings

- Extensive capacity building on scheme governance, water management, operation and maintenance for all schemes. This indicates that the (Option A) lacks sustainability due to limited local capacity and ownership.

- Option C is often too costly and complex for smallholder schemes. Option B builds long-term ownership and sustainability.

Decision

The decision is Option B (Scheme Management Committee (SMC)-led Operation). The project will establish or capacitate existing Scheme Management Committees, providing intensive training in technical operations, maintenance, finance, and group governance to ensure the long-term financial and operational sustainability of the modernized schemes.

2.5.12 Summary Decision Matrix (MCDA)

Table 8: Summary Decision Matrix (MCDA)

Alternative Block	Shortlisted Option	Env.	Social/SEAH & WASH	Tech/Resilience	Regulatory	Econ.	Overall
Site/Layout	Rehab in-place + targeted re-routing	High	High	High	High	High	Preferred
Irrigation Tech	Water-Saving Pressurized Systems (Drip/Sprinkler	High	High	High	High	High	Preferred
Energy	Solar-grid hybrid	High	High	High	High	High	Preferred
Catchment	Upstream SWC Measures Integrated	High	High	High	High	High	Preferred
Markets	Upgrade existing roads + mobile sheds + Group Marketing & Value Addition	Medium	High	High	High	High	Preferred
WASH	Hybrid siting with sanitary offsets & lined systems	Very High	Very High	Medium	High	High	Preferred
Waste	Integrated Waste Mgmt + IPM + licensed disposal	Very High	High	Medium	High	High	Preferred
Build/Schedule	Phased by sensitivity; security/WASH first	High	Very High	High	High	High	Preferred
O&M/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.

2.5.13 Residual Risk and Mitigation Linkage

The preferred alternatives embed the ESMP's mitigation hierarchy: avoid (new footprints), minimise (erosion-aware layouts; staged works), mitigate (silt traps; IPM; WASH; OHS; security hardening), and restore (re-vegetation; catchment rehab). Residual risks (e.g., abstraction competition; pesticide misuse; theft) are explicitly addressed through ZINWA permits/monitoring, IPM and container return, and transformer/cable cages and compliant armoured cabling

2.5.14 Justification

This integrated package:

- Delivers rapid productivity gains by fixing known bottlenecks (pump sizing, mainline leaks, control gear) while lowering labour burdens and improving inclusion (drag-hose/drip conversions).
- Stabilises catchments at source to protect dams/weirs and water quality.
- Hardens energy reliability (solar-grid hybrid; security cages; compliant cables) where theft/load-shedding are material risks
- Reduces losses and improves incomes by feeder road upgrades, mobile markets and solar cold storage linked to on-scheme sheds

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, as amended)

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 catchment. 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 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 and 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 all 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) establishes ten Environmental and Social Operational Safeguards (OS) that Borrowers must meet across the project lifecycle. The RACP interventions in Matebeleland North, which include rehabilitation of irrigation schemes, feeder road improvements, catchment restoration activities, and installation of water harvesting infrastructure, fall under Environmental Category 2. This category reflects activities with site-specific, predictable environmental and social risks that can be effectively managed through standard mitigation measures.

The following Operational Safeguards apply to the RACP in Matebeleland North Province.

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

OS1 applies to all RACP activities in the province. It requires an integrated Environmental and Social Assessment and continuous management of risks throughout design, construction and operation. OS1 covers all irrigation rehabilitation, catchment restoration and feeder road works.

Under OS1, environmental and social management plans are developed for each impact to ensure compliance with national requirements. Catchment interventions such as gully reclamation, stormwater management and reforestation were assessed for downstream effects, soil stability and hydrological changes. Stakeholder engagement was a core requirement, and consultations with irrigation associations and community leadership were central to OS1 compliance.

OS1 also requires that climate risks and adaptation needs be identified and addressed for all irrigation and road in Matebeleland North, ensuring infrastructure and land-use interventions are resilient to drought, storms, flooding and changing rainfall patterns.

OS2: Labour and Working Conditions

OS2 applies due to the use of skilled and unskilled labour in irrigation rehabilitation, road upgrading and water infrastructure installation. The safeguard requires that all project workers operate under safe and fair conditions.

Key risks relevant to RACP include occupational injuries during excavation and mechanical works, labour influx around irrigation schemes, risks of sexual exploitation, abuse and harassment, potential child labour, and lack of accessible grievance mechanisms for workers.

Compliance with OS2 requires the implementation of Labour Management Procedures and Occupational Health and Safety Plans. These cover worker induction, personal protective equipment, emergency preparedness and codes of conduct with explicit SEAH provisions. A separate worker grievance mechanism will operate alongside the community system. All contractors must comply with the Labour Act and the Factories and Works Act.

OS3: Resource Efficiency, Pollution Prevention and Management

OS3 is triggered because RACP involves earthworks, water abstraction, potential pollution from agrochemical use and waste generation. Irrigation rehabilitation operations may contribute to soil erosion, siltation and chemical runoff if not properly managed. Diesel pumps, machinery and transport vehicles may contribute to emissions.

Mitigation measures include erosion and sediment control at construction sites, proper handling and storage of hazardous materials, promotion of climate-smart agriculture, monitoring of water abstraction with ZINWA and promotion of solar-powered irrigation solutions. Annual reviews of greenhouse gas contributions and climate adaptation performance support compliance with OS3.

OS4: Community Health, Safety and Security

OS4 is relevant because RACP activities occur in settled rural communities. Construction vehicles and equipment create road safety and accident risks. Excavations and open trenches around canals and pipelines pose hazards to community members. Labour influx may increase exposure to communicable diseases and SEAH risks. Security personnel may be engaged to protect equipment or construction materials.

To meet OS4 requirements, the project will implement a Community Health and Safety Plan covering emergency preparedness, disease prevention, road safety, universal access to infrastructure and incident reporting. Contractors will implement measures such as signage, fencing of hazardous areas, first aid facilities and SEAH risk prevention. Design of infrastructure will consider structural safety and climate resilience.

OS5: Land Acquisition, Restrictions on Access and Involuntary Resettlement

OS5 applies as a precaution. The project is designed to operate within existing irrigation footprints and communal land arrangements. These include realignment of canals, extension

of pipelines, rehabilitation of feeder roads or closure of access to environmentally sensitive catchment areas. It is not expected that any household or user will suffer livelihood loss. Consultations will follow the Free, Prior and Informed Consent process for all affected persons. Any restrictions on grazing areas or river access required for catchment restoration will be addressed through participatory agreements.

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

OS6 applies because RACP interventions fall within the Gwayi catchment, which contain wetlands, streambanks, riparian vegetation and Miombo woodlands. Vegetation clearance for canal works, water harvesting structures or feeder road access may disturb natural habitats and indigenous flora. Siltation and erosion may affect aquatic ecosystems.

Mitigation measures include avoiding critical habitats, minimising vegetation clearance, rehabilitating disturbed areas with native grass and tree species such as *Themeda triandra* and *Hyparrhenia filipendula*, and monitoring aquatic and terrestrial biodiversity. Collaboration with EMA, Forestry Commission and ZINWA will support sustainable ecosystem management.

OS7: Vulnerable Groups

OS7 applies because RACP directly 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 include ensuring gender-responsive and youth-responsive access to irrigation land opportunities, integrating disability-friendly features in water points and scheme infrastructure, and collecting sex, age and disability-disaggregated data. Participation of vulnerable groups in WUA and catchment governance is essential.

OS10: Stakeholder Engagement and Information Disclosure

OS10 applies due to the wide geographic distribution of irrigation schemes in Metebeleland North and the requirement for continuous consultation. The Stakeholder Engagement Plan guides meaningful, timely and culturally appropriate engagement throughout the project.

Engagement activities include disclosure of project information in mainly English and Shona, ongoing consultations with communities, WUAs, EMA, ZINWA and RDCs, a functional grievance redress mechanism, and periodic reporting through district agricultural structures. The project will ensure communities receive timely feedback and updated information on project activities. The summary of OS triggered by the RACP project are presented in Table 9.

Table 9: Summary of Triggered OS for RACP Matebeleland North

Operational Safeguard (OS)	**Triggered**	**Justification / Applicability**
OS1: Environmental and Social Assessment	✓	Overall assessment of environmental and social impacts.
OS2: Labour and Working Conditions	✓	Construction labour, OHS, and SEAH/GBV risk management.
OS3: Resource Efficiency & Pollution Control	✓	Pollution and waste management, irrigation efficiency, and climate-smart technologies.
OS4: Community Health, Safety & Security	✓	Traffic, public safety, vector-borne disease and security risks.
OS5: Land Acquisition & Resettlement	✓ (Precautionary)	Potential minor land/livelihood impacts during irrigation works.
OS6: Biodiversity & Natural Resources	✓	Ecosystem disturbance from works and catchment restoration.
OS7: Vulnerable Groups	✓	Gender, youth, and inclusion measures integral to project design.
OS8: Cultural Heritage	✖	No physical cultural heritage sites identified; chance finds procedure to be applied.
OS9: Financial Intermediaries	✖	Project not implemented through financial intermediaries.
OS10: Stakeholder Engagement & Disclosure	✓	Broad-based engagement, information dissemination, and GRM.

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

The International Fund for Agricultural Development (IFAD) requires all projects it finances to comply with its Social, Environmental and Climate Assessment Procedures (SECAP, 2021). SECAP defines nine mandatory environmental, social and climate standards that promote environmental sustainability, social inclusion, and climate resilience throughout the project cycle, from screening and design through implementation, monitoring, and completion. In the context of RACP in Matebeleland North 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)**, requiring 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, species diversity, and ecosystem services. RACP interventions such as canal rehabilitation, dam desilting, and catchment restoration may affect terrestrial and aquatic ecosystems or remove vegetation cover. In compliance with this standard, the project will avoid critical habitats, re-establish native vegetation such as *Themeda triandra*, *Hyparrhenia filipendula*, and *Protea asymmetrica*, and integrate biodiversity monitoring indicators within the ESMP. Ecological restoration will be implemented in degraded gully and wetland areas.

SECAP Standard 2: Resource Efficiency and Pollution Prevention

This standard promotes the efficient use of resources and the prevention of pollution from construction, irrigation, and agro-processing activities. RACP will promote efficient irrigation systems such as lined canals, solar pumps, and low-pressure sprinklers. Waste and effluent management will comply with national regulations, including the Environmental Management (Effluent and Solid Waste Disposal) Regulations of 2007 and the Hazardous Substances Regulations of 2018. The project will encourage climate-smart agriculture to reduce greenhouse gas emissions and runoff pollution while enhancing soil fertility and water conservation.

SECAP Standard 3: Cultural Heritage

This standard ensures the protection of tangible and intangible cultural assets. While no known heritage sites exist within the identified project areas, construction contracts will include a Chance Finds Procedure. This will require immediate suspension of works and notification of the National Museums and Monuments of Zimbabwe (NMMZ) and the Environmental Management Agency (EMA) if archaeological or sacred sites are discovered during implementation.

SECAP Standard 4: Indigenous Peoples

Although no communities in Matebeleland North meet the definition of Indigenous Peoples under IFAD's policy, the project will uphold the principles of Free, Prior and Informed Consent (FPIC). All consultations will ensure equitable representation of traditional leaders, women, youth, and vulnerable groups in line with IFAD's Targeting Policy and commitment to inclusion.

SECAP Standard 5: Labour and Working Conditions

This standard promotes fair treatment, safety, and wellbeing of workers. RACP will engage both skilled and unskilled labour during construction and operation. To comply with this standard, the project will develop a Labour Management Procedure aligned with the Zimbabwe Labour Act [Chapter 28:01] and the Factories and Works Act [Chapter 14:08]. A Worker Grievance Mechanism will be established separately from the community system. Contractors will be required to enforce Codes of Conduct, implement GBV and SEAH prevention training, and ensure compliance with Occupational Health and Safety standards.

SECAP Standard 6: Community Health and Safety

These standard addresses potential health and safety risks to nearby communities. The movement of heavy vehicles, temporary construction camps, and interaction between workers and local residents can increase exposure to communicable diseases and accidents. To mitigate these risks, the project will implement a Community Health and Safety Plan covering traffic management, emergency response, sanitation, and vector control. Security arrangements will follow the principles of human rights protection, and GBV and SEAH prevention measures will be embedded in all community interactions. Collaboration with local health institutions will strengthen disease surveillance and emergency preparedness.

SECAP Standard 7: Physical and Economic Resettlement

This standard ensures that any physical or economic displacement is avoided or adequately mitigated. Although RACP works are mainly confined within existing irrigation schemes and communal lands, temporary loss of access or minor crop disturbance may occur during canal or road works. The project will therefore apply a precautionary approach. A Resettlement Screening process will be undertaken for each subproject, and an Abbreviated Resettlement Action Plan will be prepared if economic losses are identified. Compensation will be provided at full replacement cost prior to the commencement of works.

SECAP Standard 8: Financial Intermediaries and Direct Investments

This standard does not apply, as RACP is implemented directly by the Government of Zimbabwe through the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development. However, any financial support extended to Village Business Units will observe due diligence principles consistent with IFAD's Environmental and Social Management System.

SECAP Standard 9: Climate Change Adaptation and Mitigation

This standard integrates climate risk management throughout project design and implementation Matebeleland North is experiencing increasing drought frequency, erratic rainfall, and soil degradation. RACP will integrate climate-resilient technologies such as rainwater harvesting, mulching, conservation tillage, and drought-tolerant crop varieties. Solar-powered irrigation systems will be promoted to replace fossil-fuel-based pumps. Climate risk screening and monitoring will be carried out annually, and progress on adaptation co-benefits will be reported through IFAD's Operational Results Management System. The project aligns with Zimbabwe's Nationally Determined Contributions and National Climate Policy.

Table 10: Summary of Triggered IFAD SECAP Standards for RACP Matebeleland North Province

SECAP Standard	Triggered	Justification / Applicability
Standard 1 (S1): Biodiversity Conservation	Yes	Catchment restoration, vegetation disturbance, and ecological rehabilitation.
Standard 2 (S2): Resource Efficiency and Pollution Prevention	Yes	Water abstraction, waste management, and pesticide use.

SECAP Standard	Triggered	Justification / Applicability
Standard 3 (S3): Cultural Heritage	Precautionary	Chance finds procedure to safeguard potential cultural assets.
Standard 4 (S4): Indigenous Peoples	No (Contextual Application)	FPIC and inclusion principles applied through stakeholder engagement.
Standard 5 (S5): Labour and Working Conditions	Yes	Construction labour, OHS compliance, and GBV/SEAH prevention.
Standard 6 (S6): Community Health and Safety	Yes	Traffic movement, public safety, and disease prevention.
Standard 7 (S7): Physical and Economic Resettlement	Precautionary	Temporary livelihood or access restrictions possible.
Standard 8 (S8): Financial Intermediaries	No	Project implemented directly by Government entities.
Standard 9 (S9): Climate Change	Yes	Climate adaptation and mitigation mainstreamed in project activities.

Integration with IFAD Accountability and Incident Procedures

All RACP activities will comply with IFAD's Complaints Procedure (EB-2022-136-R-27), which allows affected persons or stakeholders to raise concerns about non-compliance with SECAP. In addition, the IFAD Incident Notification Procedure (2023) requires the borrower to report any serious environmental, social, health, or safety incident to the Country Director within two days. The report is then escalated through IFAD's operational and risk management structures for verification and corrective action.

In addition to meeting Zimbabwe's national legislation and policy requirements, 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 11 and Table 12 summarise the main international instruments and

standards applicable to the project, the compliance strategy adopted by the proponent, and the corresponding monitoring arrangements.

Table 11: 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
Forestry Act [Chapter 19:05] (OS6; S1&S9)	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; S1&S9)	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,OS6&OS10; S2&S9)	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,OS6&OS10; S2&S9)	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,OS6&OS10; S2&S9)	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, OS3&OS4;	Operate schemes in compliance with admission rules, irrigation levies, sanitation, stock control and disciplined farming provisions.	Scheme registration; levy payments; irrigation agency approvals.	Ministry of Lands & RDCs / District Irrigation Engineers
Communal Land Act and Land Acquisition Act (OS5&OS10; S4&S7)	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, OS4&OS5;	Obtain RDC development approvals for feeder roads, VBUs and market infrastructure.	Development approval letters.	RDCs

Legislation / SI	Compliance Strategy by the Proponent	Permits / Licences / Certificates / Reporting Required	Monitoring Agent
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
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) & National Youth Policy (2020) (OS7&OS10; 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 (OS3;S2)			EMA

Table 12: 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 Action) and SDG 15 (Life on Land) into project design and indicators.	Alignment reflected in annual reports to the Government and IFAD/AfDB.	Government of Zimbabwe / UN Agencies
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

Instrument / Standard	Compliance Strategy by the Proponent	Permits / Certificates / Reporting Required	Monitoring / Oversight Body
International Pest Management and Pesticide Use Guidelines (FAO/WHO)	Adopt integrated pest management in irrigated areas and handle agrochemicals safely.	IPM plans and pesticide use records.	EMA / Ministry of Agriculture / FAO

Below in Table 13, an ESMP-ready section highlighting the gaps between Zimbabwean legislation and AfDB (OS) and IFAD (S) standards, presented with a clear introduction, a comparative table, and a closing paragraph on how the gaps can be addressed.

Alignment and Gaps Between Zimbabwean Legislation and AfDB (OS) & 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 13 : 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.

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
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 assessment and biodiversity offsets where necessary.	**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.
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.

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
6. Gender Equality and Social Inclusion	Gender Policy encourages gender equity but is not legally binding at project level and lacks enforcement mechanisms across sectors.	**OS1 & 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 participation requirements.
7. Climate Change Risk, Vulnerability & GHG Management	Climate Policy and NDC exist but climate risk screening is not integrated into statutory EIA processes.	**OS1 & 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 parts of the EM Act EIA process.	**OS1 & OS2** require identification and targeted inclusion of vulnerable or disadvantaged groups.	**S1 & S6** require inclusive processes, culturally appropriate engagement and social equity measures.	Vulnerable groups are not systematically identified or targeted during EIA processes.
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	Absence of mandatory chance-find protocols under EM Act.

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
			chance-find procedures.	
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&S risk screening.	**OS10** requires financial intermediaries to adopt E&S risk frameworks.	**S1 & S6** expect institutional strengthening for oversight and risk management.	No E&S risk 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 technical and financial management, GRM operation, gender integration and biodiversity safeguards. Infrastructure improvements, including the provision of necessary tools and establishing operational funds, will ensure efficient scheme functioning. Strengthening collaboration with NGOs and governmental bodies will facilitate resource sharing and enhance capacity building. 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. In addition, putting in place reliable monitoring and assessment methods will encourage ongoing development and flexibility, guaranteeing the long-term viability and efficiency of all three programs.

4.0 BASELINE ENVIRONMENTAL AND SOCIAL SETTING

This chapter presents the baseline environmental and social conditions within the RACP target areas. It provides a clear picture of the existing physical, biological and socio-economic environment to inform impact assessment and the design of mitigation measures. Each subsection describes key attributes such as topography, climate, hydrology, biodiversity and social characteristics for the provinces and districts covered by the project. Establishing these baselines ensures that project planning, implementation and monitoring are grounded in accurate, context-specific information, in line with national regulations and international safeguard requirements.

4.1 Biophysical Environment: Topography, soils, climate, hydrology, and biodiversity.

4.1.1 Topography

The RACP target areas span contrasting landscapes ranging from semi-arid lowlands to rolling upland plateaus. Elevations vary from about 500 m in the Zambezi Valley of Binga to over 1,200 m, resulting in marked differences in rainfall, temperatures, and erosion risks. Soils also shift with terrain, from deep Kalahari sands and colluvial deposits in Matabeleland North to heavier loams.

Regional Implications for Irrigation Development

Within the Matabeleland North districts, the combination of gently undulating plateaus, alluvial plains and broad interfluves provides favourable biophysical conditions for the rehabilitation and expansion of irrigation under the project. These moderate slopes reduce engineering complexity and support efficient deployment of climate-smart technologies promoted by RACP, including centre pivots, sprinklers and solar-powered pumping systems. However, the project also operates in areas with significant local variation such as the steep escarpment zones of Binga, the low-lying floodplains of Hwange, and the sandy plains characteristic of Nkayi and Lupane which present differentiated risks of erosion, rapid runoff, sandiness-related infiltration losses and waterlogging. Integrating topography-sensitive solutions such as terracing, drainage infrastructure, and vegetative stabilisation into scheme design will optimise water use, enhance soil conservation, and safeguard long-term irrigation performance.

Binga District

Binga District is the most dramatic and rugged in western Zimbabwe, defined overwhelmingly by its position within the active Zambezi Rift Valley. This is a low-lying, fault-bounded basin that creates a stark topographic contrast with the surrounding plateaus. The landscape is primarily one of intense dissection, where erosion has carved the ancient bedrock into a chaotic tapestry of hills, ridges, and deep, narrow valleys. This ruggedness is a direct result of the district's location on the southern margin of the rift, where the land begins its steep ascent toward the Zambezi Escarpment.

The most significant topographic feature is the Zambezi River itself and the massive reservoir of Lake Kariba that now floods a large part of the valley floor. The shoreline of Lake Kariba is exceptionally indented and steep, with numerous rocky headlands, deep bays, and submerged valleys that were once tributaries to the Zambezi. Moving south from the lakeshore, the terrain rises sharply from the alluvial plains of the rift floor into a labyrinthine network of hills and koppies (small, rocky hills). Elevation across the district is the lowest in the region, ranging from just about 500 meters at the surface of Lake Kariba to approximately 800 meters at the base of the full escarpment that leads up to the Hwange plateau. This dramatic topography directly dictates the district's drainage, settlement patterns, and land use. All seasonal rivers and streams, such as the Sijarira and Sengwa, flow northward in deeply incised valleys, draining ultimately into Lake Kariba.

For RACP, this rugged terrain presents both opportunities and constraints. While lakeshore zones offer potential for smallholder irrigation, fisheries value chains and solar-powered water systems, the steep slopes and narrow valleys require careful engineering design, soil conservation measures and erosion control to ensure infrastructure resilience. Subsistence agriculture occurs only in limited pockets of arable land, reinforcing the project’s need for site-specific planning and climate-smart interventions tailored to the complex physical environment of Binga District.

Hwange District

The topography of Hwange District, located within the southern portion of the Gwayi Catchment, forms a distinctive transitional zone that shapes the district’s agricultural and environmental potential under the RACP programme. The area represents a rising landscape from the low-lying Zambezi Rift Valley in the northwest to the elevated Kalahari sand plateau

in the south, creating strong variation in land capability, water availability, and climate resilience.

A defining feature for RACP planning is the Hwange–Kariangwe Panhandle, where parallel sandstone ridges run in a northeast–southwest direction. These ridges create broad, shallow depressions that form seasonal pans, which are critical as temporary water sources for livestock and wildlife. For RACP, these pans indicate localised opportunities for supplementary water harvesting, though they present limited reliability for structured irrigation schemes because of high evaporation and seasonal variability.

Further north of the panhandle, the terrain opens into the expansive Kalahari sandveld, characterised by flat to gently undulating plains with deep, highly permeable sandy soils. This topographic and soil combination results in rapid infiltration and minimal surface runoff, explaining the scarcity of perennial rivers within the Gwayi sub-catchment in Hwange District. For the RACP programme, this means that surface irrigation development is constrained, and emphasis should be placed on:

- Groundwater exploitation from deep sand aquifers,
- Strategic borehole siting,
- Solarised pumping systems, and
- Water-efficient irrigation technologies such as drip or low-pressure systems.

Elevation varies from approximately **800 m** near the Zambezi Valley boundary to over **1,200 m** in the southern, more rugged areas. This gradient influences microclimate variation, with the higher southern areas being relatively cooler and more suitable for dryland cropping**, forestry, and agroforestry**, all of which align with RACP's climate-adaptation priorities.

Nkayi District

The topography of Nkayi District is a quintessential expression of the Kalahari sandveld system that dominates much of western Zimbabwe, and it plays a central role in shaping the district's agricultural and climate-resilience pathways under the RACP programme. Unlike the rugged escarpments of Binga or the structurally complex panhandle of Hwange, Nkayi exhibits a landscape defined by exceptional uniformity, simplicity, and gentle relief.

This pervasive sandy geology results in an exceptionally even and consistent elevation across the district, which generally sits between 900 and 1,100 meters above sea level. The gentle undulations that do exist are often so broad and shallow that they are almost imperceptible,

making the landscape appear largely flat to the naked eye. This uniformity is the district's most defining topographic characteristic. The drainage patterns in Nkayi are a direct consequence of this sandy topography. There is no well-defined, incised river system like the Gwayi in Lupane or the Zambezi in Binga. Instead, surface drainage is poorly developed and largely internal. Rainfall rapidly infiltrates the porous sands, and what little surface flow occurs happens in very broad, shallow, and often indistinct seasonal watercourses known as vleis or sand rivers. These channels are typically dry on the surface but may hold water in the sand below, representing a subtle but critical component of the hydrology. This topographic and hydrologic setting makes Nkayi ideal for cattle ranching and subsistence agriculture, as the land is well-drained and easily workable, though it is also highly susceptible to erosion and challenges with surface water availability.

Lupane District

The topography of Lupane District represents a nuanced and transitional part of the Kalahari sandveld, sharing the characteristic flat-to-rolling sandy plains of its neighbour Nkayi, but with greater definition and variety imposed by its specific location. Situated at the heart of western Zimbabwe, Lupane sits on the deep sands of the Kalahari Basin but also marks the beginning of the transition towards the higher, more ancient bedrock of the country's central watershed. This gives the district a subtle topographical hierarchy.

The dominant feature remains the extensive, undulating plain of red Kalahari sand, which creates a wide, open landscape. However, the most significant topographical break in this uniformity is the Gwayi River valley. Unlike the subtle drainage lines in Nkayi, the Gwayi has carved a more distinct and defined valley as it flows north-westward. This river channel and its adjacent floodplain introduce a clear linear feature into the otherwise homogeneous terrain, creating a noticeable dip and a different vegetative pattern across the district.

Elevation in Lupane is consistently higher than in the western districts, generally ranging from 1,000 to 1,200 meters above sea level. This slightly higher altitude, combined with its easterly position, means the district begins to gently roll towards the edge of the sandveld. In its eastern parts, the deep sands become shallower, and the underlying granite bedrock occasionally breaks through the surface in the form of low koppies (small rocky hills), signalling the transition towards the different geological province of the central plateau. Under RACP, this landscape configuration allows for integrated interventions that combine climate-smart crop

production, livestock management, and water-efficient irrigation, while maintaining sustainable land use and minimizing erosion risks.

4.1.2 Climate

This section outlines the prevailing climatic conditions across the Resilience Agriculture Cluster Project (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. This climate baseline is essential for irrigation design, crop selection and the integration of climate risk management measures into project planning. By identifying spatial variations in rainfall, temperature and hazard exposure, the project can tailor interventions to enhance resilience and reduce vulnerability across its provinces, districts and irrigation schemes.

Matabeleland North (Gwayi Catchment)

This province lies mainly in Natural Regions IV and V with a semi-arid climate. Annual rainfall averages 400–650 mm, falling mainly from November to March, but is highly variable and often ends early. Temperatures are warm to hot in the low-lying Zambezi Valley areas of Binga and Msuna (summer maxima >35 °C) and slightly cooler on the upland plateaus of Lupane and Nkayi (25–30 °C). Prolonged dry spells and recurrent droughts are common, while intense convective storms sometimes cause flash floods in valley bottoms. Irrigation schemes like Lukosi and Tshongokwe must therefore plan for both water scarcity and stormwater management.

4.1.3 Climate Risks

Matabeleland North (Gwayi Catchment)

Across Binga, Hwange, Nkayi and Lupane the climate is semi-arid with high inter-annual rainfall variability. Agricultural droughts are frequent and the sandy soils dry quickly after rains. Short, intense convective storms generate flash flooding along ephemeral rivers such as the Gwayi.

Binga

Binga lies on the hot Zambezi escarpment margins and experiences severe droughts punctuated by storm cells that can trigger flash floods. Binga's rainfall pattern is characterised by a hot and

dry climate, receiving between 240−300mm of annual rainfall, with severe dry spells during the rainy season, see

Figure 2. The rainy season runs from approximately November to April, with rainfall occurring in large, intense events followed by prolonged dry periods. Historical data shows a slight increase in average rainfall since 2018, but it remains highly variable, with trends indicating a general increase in water flow in the Zambezi River Basin, which includes Binga.

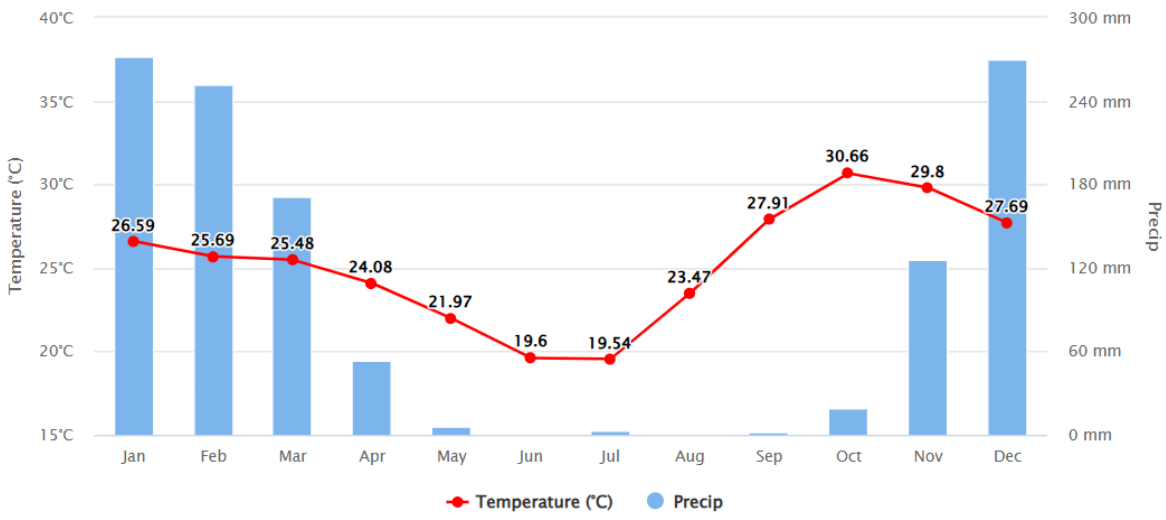

Figure 2: Binga Climate graph

Hwange

Msuna's proximity to the Zambezi means irrigation pumping faces operational challenges from seasonal floods and recession flows, while Lukosi sits in a Highveld-Lowveld transition with frequent dry spells and local storm damage. Hwange experiences a semi-arid climate characterised by distinct wet and dry seasons that significantly influence its agricultural and ecological dynamics. The rainy season typically lasts from November to March, with most rainfall occurring between December and February, averaging between 50 mm to 150 mm monthly. During this period, temperatures are warm, ranging from 20°C to 30°C (68°F to 86°F). In contrast, the dry season runs from April to October, featuring very little to no rainfall, often below 10 mm monthly, with cooler temperatures, particularly in the evenings, averaging between 15°C to 25°C (59°F to 77°F) (see Figure 3) October is usually the hottest month, resulting in increased evaporation rates. Additionally, climate variability can lead to irregular rainfall patterns and drought conditions, impacting water availability and agricultural

productivity. Understanding these climate patterns is essential for effective planning in agriculture, water resource management, and conservation efforts in Hwange.

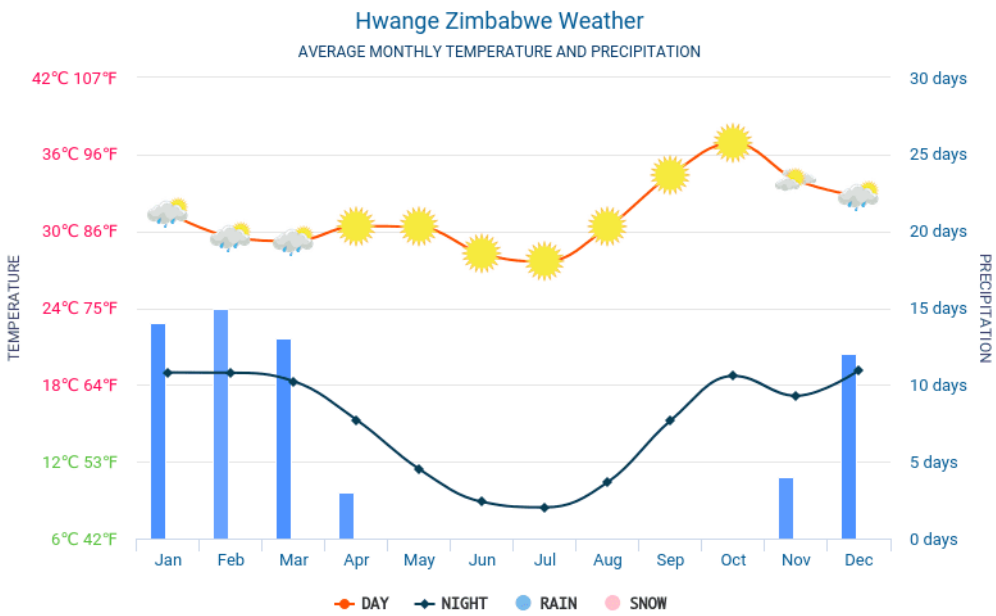

Figure 3: Hwange Annual Temperature graph

Nkayi

Nkayi typically experiences a subtropical climate characterised by distinct wet and dry seasons. The rainy season usually spans from November to March, with the majority of rainfall occurring in December and January. During this period, temperatures are generally warm, averaging between 20°C to 30°C (68°F to 86°F). The dry season, from April to October, brings cooler temperatures, particularly in the evenings, and significantly less rainfall. Average temperatures during the dry months can range from 15°C to 25°C (59°F to 77°F). Variability in climate patterns, influenced by factors such as climate change, can lead to irregular rainfall, affecting agricultural productivity and water availability (Figure 4).

Figure 4: Nkayi Annual Temperature graph

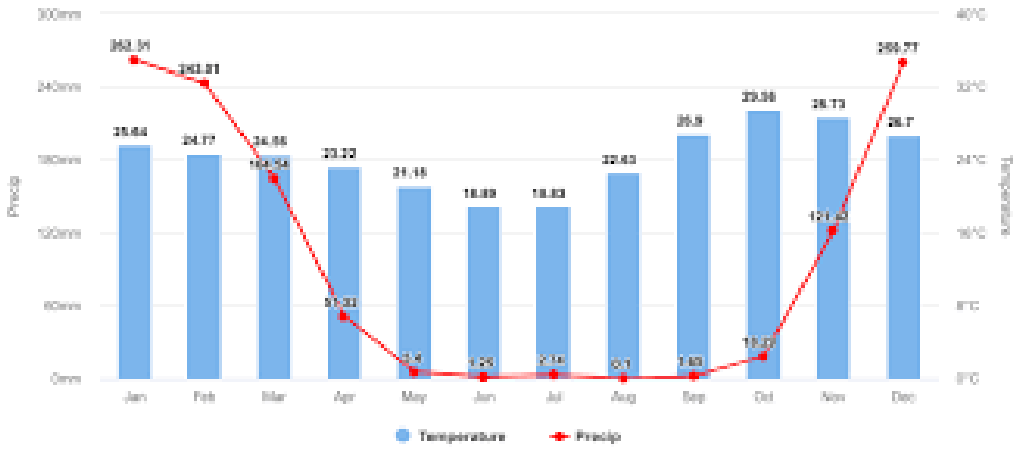

Figure 4: Nkayi Annual Temperature graph

Lupane (Tshongokwe)

Lupane experiences a subtropical climate characterised by distinct wet and dry seasons that significantly influence its agricultural practices and ecological conditions. The rainy season generally spans from November to March, with the majority of rainfall occurring between December and February, averaging between 50 mm to 150 mm monthly, which supports agricultural productivity (see Figure 5). During this season, temperatures are warm, typically ranging from 20°C to 30°C (68°F to 86°F). In contrast, the dry season lasts from April to October, marked by very little rainfall, often below 10 mm per month, leading to dry conditions. Cooler temperatures prevail during these months, particularly in the evenings, with averages ranging from 15°C to 25°C (59°F to 77°F), and October is usually the hottest month before the onset of rains. Additionally, climate patterns can vary significantly from year to year, influenced by broader climatic changes, which can result in drought conditions or irregular rainfall patterns that impact agricultural output and water availability. Understanding these climate patterns is crucial for effective agricultural planning, water resource management, and conservation strategies in Lupane.

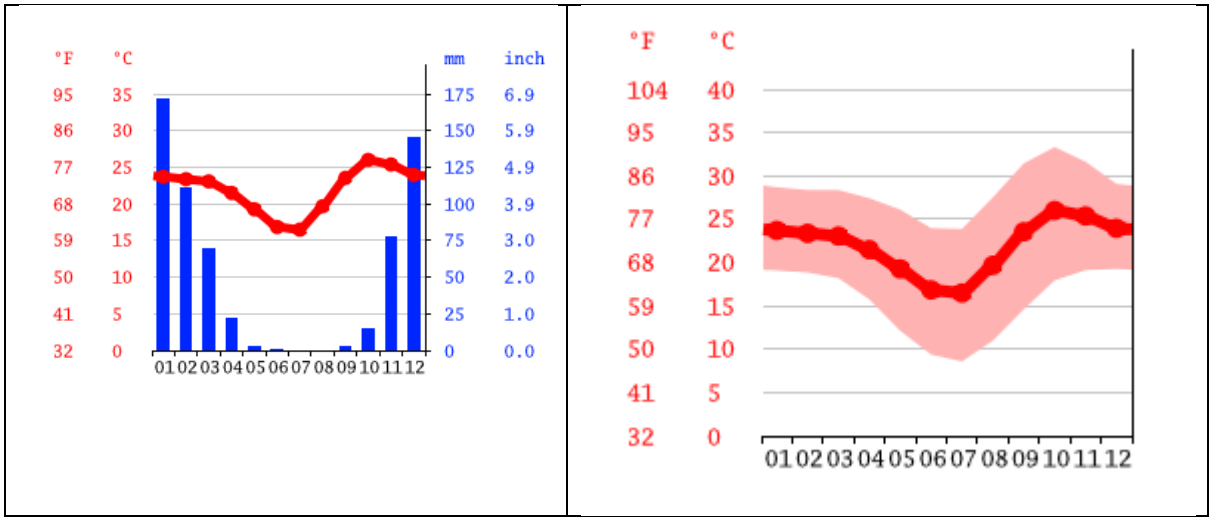

Figure 5: Rainfall and Temperature Pattern of Lupane District

4.1.4 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 the provinces and 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.

Binga District

Binga lies within the southern Zambezi escarpment and alluvial terraces, where soils are predominantly deep sandy loams, loamy sands, and alluvial silts. These soils are light-textured, well-drained, and low in organic matter, with low to moderate fertility and a tendency toward nutrient leaching under high rainfall or excessive irrigation. Erosion is moderate to high on sloping terrain, and deposition of fine sediments occurs in valley bottoms. Soil management should focus on contour alignment, cover cropping, and strategic use of organic fertilisers to improve structure and water-holding capacity. Irrigation designs must include sediment control and intake protection due to variable soil stability near river terraces. Binga's soils are dominated by deep Kalahari sands and colluvial deposits from the surrounding escarpment. They are coarse-textured with low organic matter and weak structure, giving low inherent fertility but very high infiltration. Alluvial patches along the Zambezi and seasonal rivers support richer loamy soils but are prone to flash flooding and sediment deposition. Any future

irrigation scheme must combine soil conditioning and nutrient management to achieve viable yields.

Hwange District (Lukosi and Msuna Schemes)

Hwange's soils reflect its transition between the Highveld and Zambezi lowlands. They are mainly brown sandy clays, sandy loams, and colluvial soils on subdued relief with shallow slopes Plate 7. Fertility ranges from low to moderate, with responsive behaviour to nitrogen and phosphorus. Drainage is moderate to imperfect in lower positions, raising the risk of salinisation and waterlogging if irrigation is poorly managed. The erosion hazard is significant on cleared slopes and near canal embankments, particularly during intense rainfall. Sustainable management should include residue retention, controlled traffic farming, and drainage infrastructure to prevent salt build-up and maintain soil health. Around Lukosi, soils are brown sandy clays to sandy loams derived from weathered granites Plate 8 They have moderate infiltration and medium fertility but shallow horizons on upper slopes. Msuna sits on Zambezi alluvium characterised by stratified sandy loams with occasional clay lenses and high groundwater tables. Salinity risk is moderate in depressions, requiring lined drains and leaching fractions for irrigation layouts.

Plate 7: Msuna Soils

Plate 8: *Lukosi Soils*

Nkayi District

Soils are predominantly derived from granitic parent materials and are characterised by deep to moderately deep sandy loams and sandy clay loams on gently undulating interfluves and long foot slopes. These soils are generally coarse-textured, moderately drained, and low in inherent fertility, requiring organic amendments and basal fertilisers for optimal productivity. Infiltration rates are high, but water-holding capacity is limited, necessitating frequent irrigation scheduling. Erosion risk is moderate on exposed slopes where protective vegetation has been cleared, and organic matter depletion is common due to continuous cultivation. Conservation agriculture, contour bunding, and vegetative strips are recommended to minimise erosion and improve soil structure. Nkayi's plateau is covered by deep, fine to medium sands of low nutrient status. The long, gentle slopes allow good infiltration but poor moisture-holding capacity. Supplementary organic matter and conservation tillage are important to sustain productivity under irrigation.

Lupane District (Tshongokwe Scheme)

Lupane has grey to reddish sandy loams on wide interfluves and slightly heavier soils along drainage lines. At Tshongokwe, the command area sits on gently sloping sandy loams with sporadic clay patches, which improves workability but increases variability in infiltration. Good land levelling and drainage are essential to prevent ponding in heavier spots. Geology in the project and surrounding area is dominated by thick Kalahari Sand cover overlying Karoo

basalts and a variety of Karoo arenites and argillites. As a result, the in-situ soils are predominantly brown Kalahari sands. The unit consists of moderately shallow to moderately deep (50 – 100cm) soils. Permeable and well-drained solum. Landscape is flat to gently undulating. Stony phase of 1. Small and large stones derived from dolerite in the solum. Mechanised agriculture was impeded. Mountainous terrain on dolerite parent material. They have a low bearing capacity with little or no plasticity at all.

4.1.5 Catchment Hydrology and Water Resources

RACP spans four major catchments: Gwayi, Sanyati, Mazowe, and Manyame, each characterised by distinctive drainage patterns, surface and groundwater resources, and climate risks. Rivers across all basins are highly seasonal, with strong flows in the wet months (November–April) that reduce to isolated pools or dry channels in winter. Small dams, night-storage reservoirs, and weirs are therefore critical buffers for irrigation supply. Understanding these catchments is essential for assessing both water availability and the risks posed by droughts, floods, and long-term variability. The Gwayi basin lies in a semi-arid zone dominated by Kalahari sands and flat to gently undulating topography. Drainage is largely dendritic to trellis in form, with ephemeral rivers feeding into the Gwayi trunk system and ultimately into the Zambezi. Average rainfall is low (400–650 mm) and erratic, resulting in highly seasonal river flows. Groundwater is limited and often saline, with yields varying by aquifer type.

This section outlines the hydrological context, drainage characteristics, and water resource dynamics relevant to the Resilience Agriculture Cluster Project (RACP) in Matabeleland North Province, focusing on the Gwayi Catchment and its sub-catchments that support irrigation development in Hwange, Binga, Lupane, and Nkayi districts. A detailed understanding of catchment systems, water availability, and associated risks is critical for irrigation planning, water allocation, and long-term climate resilience. RACP operates primarily within the Gwayi River Catchment, one of Zimbabwe's major drainage basins flowing northward into the Zambezi. The catchment features a network of ephemeral and seasonal rivers that exhibit highly variable flows, with peak discharges from November to April during the rainy season and substantial reductions to isolated pools or dry beds in the dry months. Key tributaries such as the Shashani, Lukosi, Tshongokwe, and Dete Rivers sustain agricultural, domestic, and ecological functions. Surface water resources are complemented by groundwater from fractured aquifers, which provide a vital dry-season supply, particularly in Nkayi and Lupane.

The catchment's hydrology is shaped by semi-arid to sub-humid climatic conditions, with annual rainfall ranging between 450- and 700-mm. Evapotranspiration often exceeds

precipitation, resulting in significant water deficits that heighten dependence on storage infrastructure. Small to medium-sized earth dams, weirs, and night-storage reservoirs form the backbone of irrigation water supply, buffering schemes against seasonal variability. Groundwater abstraction through boreholes and solar-powered pumps supplements surface water, especially in areas with unreliable river flow.

Hwange District

Hwange lies within the lower Gwayi basin, where drainage is dominated by the Lukosi and Dete river systems. Water availability is largely seasonal, with rivers flowing for three to five months annually. The Kalope Dam which regulates flashy inflows, a key storage facility, supplies water to the Lukosi Irrigation Scheme, while other smaller reservoirs and weirs capture runoff for supplemental irrigation. Upland areas show dendritic drainage on basement rocks feeding into the Lukosi and Deka Rivers. Lukosi Scheme abstracts from Kalope Dam. Groundwater resources occur in fractured sandstone and basalt aquifers, with moderate yields suitable for village water supply and small-scale irrigation. Major hydrological challenges include sedimentation of reservoirs, variable inflows due to erratic rainfall, and increased water demand from competing land uses such as mining and tourism. Msuna lies directly on the Zambezi with a braided, highly fluctuating flow regime, requiring movable intakes and constant bank protection.

Binga District

Binga occupies the Zambezi Valley escarpment zone and receives drainage from rivers such as the Siansi, Simatelele, and Masumu, which feed into Lake Kariba. Hydrology here is strongly influenced by escarpment runoff patterns, with steep gradients causing rapid flow peaks and flash flooding during intense storms. Irrigation water is sourced from a combination of river intakes, seasonal dams, and groundwater boreholes. However, high evaporation rates, catchment degradation, and deforestation in upper catchments increase sediment load and reduce water quality. Lake Kariba's fluctuating levels also impact intake operations and downstream water availability. Binga's steep escarpment tributaries form a trellis network that delivers flash floods and heavy sediment loads in the wet season before drying up. Irrigation will require sediment control and flood-resilient intakes.

Nkayi District

Nkayi's hydrology is characterised by ephemeral rivers such as the Siyepambili, Tshongokwe, and Manzamnyama, which flow briefly following rainfall events. Surface water is scarce outside the rainy season, making boreholes, small weirs, and storage ponds essential. Groundwater recharge is variable, often constrained by low rainfall and declining vegetation cover. Irrigation schemes rely heavily on road-water harvesting structures and rainwater tanks to stabilise supply. Key vulnerabilities include seasonal water shortages, siltation of small dams, and reduced recharge due to land degradation. Sparse trellis-like streams provide little perennial flow. Irrigation would rely heavily on small reservoirs and boreholes.

Lupane District

Lupane is drained by tributaries such as the Tshongokwe and Nyathi rivers, which support irrigation and livestock watering. Hydrological conditions are highly seasonal, with baseflows diminishing rapidly after rainfall events. The Tshongokwe Dam provides the main water source for irrigation, but faces reduced yield due to sedimentation and evaporation losses. Groundwater potential is moderate, though borehole yields decline significantly during drought periods. Surface water infrastructure is vulnerable to flash flooding, spillway erosion, and sediment inflows from upstream communal lands. Crossed by dendritic tributaries of the Gwayi, with Tshongokwe Dam providing water. Inflows are highly seasonal and vulnerable to siltation without catchment vegetation cover.

Hydrological Characteristics and Risks

Surface Water: Most rivers are ephemeral or seasonal, with highly variable flow regimes dependent on rainfall intensity and duration. Irrigation schemes rely on small dams, weirs, and off-stream storage, which are vulnerable to sedimentation and capacity loss.

Groundwater: Groundwater occurs in fractured aquifers and weathered zones, with moderate yields sufficient for supplementary irrigation. Recharge rates are sensitive to vegetation cover, land use, and rainfall variability, and over-abstraction risks lowering water tables.

Drainage Patterns: The catchment is dominated by dendritic and sub-parallel drainage systems, with steep headwaters prone to flash flooding and rapid runoff. Protective measures such as gabions, check dams, and vegetated riparian buffers are necessary to stabilise flows and reduce erosion.

Key Risks and Management Challenges

- Erratic Rainfall: Inconsistent onset and duration of rainfall reduce the predictability of surface water flows and recharge cycles.
- Erosion and Sedimentation: Deforestation, overgrazing, and streambank cultivation accelerate soil loss and reduce reservoir storage capacity.
- Flooding: Intense storm events trigger flash floods that damage infrastructure and wash sediments into canals and storage structures.
- Groundwater Stress: Increasing demand and limited recharge threaten long-term groundwater sustainability.
- Water Quality Degradation: Agricultural runoff and artisanal mining introduce sediments and contaminants into rivers and dams.
- Drought: Recurrent droughts severely reduce water availability, necessitating enhanced storage and demand management strategies.
- Infrastructure Vulnerability: Inadequate spillways, poorly maintained diversion weirs, and unlined canals are highly susceptible to damage from extreme weather events.

Matabeleland North's water resources are characterised by seasonal flow regimes, moderate groundwater potential, and significant exposure to climate variability. Effective management requires a combination of infrastructure rehabilitation, catchment restoration, and demand-side interventions. Strengthening water governance, improving sediment control, and integrating early warning systems will be essential for securing a reliable irrigation supply and sustaining agricultural productivity under the RACP. Chronic drought, short but intense floods, rapid erosion, and reduced groundwater reliability.

4.2 Biodiversity and Sensitive Habitats

Introduction

The RACP traverses some of Zimbabwe's most ecologically diverse regions, from semi-arid mopane savannah to wetter Highveld miombo mosaics. This section highlights dominant vegetation types, key animal species and aquatic ecosystems in each province and district. Understanding these features ensures that irrigation and catchment restoration interventions avoid critical habitats, conserve ecosystem services and comply with national and international safeguard standards.

Matabeleland North is characterised by a rich mosaic of ecological systems ranging from dry savanna woodland and mixed miombo forests to riparian corridors, seasonal dambos, and alluvial plains. These ecosystems support a high diversity of plant and animal life and underpin

key ecosystem services such as soil fertility maintenance, pollination, water regulation, and carbon sequestration. They are also vital for sustaining smallholder agriculture and rural livelihoods. As RACP interventions expand irrigation, improve infrastructure, and rehabilitate degraded landscapes in Hwange, Binga, Lupane, and Nkayi, careful biodiversity planning and habitat management will be essential to prevent degradation and align with the Environmental Management Act [Chapter 20:27], IFAD SECAP, and AfDB ISS.

4.2.1 Flora and Vegetation Communities

Matebeleland North (Gwayi Catchment)

The dominant vegetation across Lupane, Hwange, Nkayi and Bingathe project area is dry miombo woodland and mixed savanna, with canopy-forming trees such as *Brachystegia spiciformis* (msasa), *Julbernardia globiflora* (munondo), *Terminalia sericea* (mugugunyana), and *Combretum molle* (mususu), see Plate 9 and Plate 10. These species are vital for soil stabilisation, water retention, microclimate regulation, and carbon storage, and provide non-timber forest products (NTFPs) such as firewood, medicinal bark, and wild fruits. Sub-canopy and shrub species such as *Piliostigma thonningii*, *Pterocarpus angolensis* (mukwa), *Dichrostachys cinerea* (sickle bush), and *Acacia nilotica* are common in more open savanna and disturbed sites.

Riparian and wetland zones along major rivers like Lukosi, Tshongokwe, Gwayi, and Siansi support more water-dependent species, including *Syzygium guineense* (waterberry), *Ficus sycomorus* (sycamore fig), *Acacia sieberiana* (paperbark acacia), and *Trichilia emetica* (Natal mahogany). These species stabilise riverbanks, enhance infiltration, and improve aquatic habitat quality. Grassland ecosystems are dominated by *Themeda triandra* (red grass), *Hyparrhenia filipendula* (thatching grass), and *Andropogon gayanus* (gamba grass), which provide essential forage for livestock and habitat for small mammals, reptiles, and ground-nesting birds.

Seasonally waterlogged dambos and floodplain wetlands support hydrophilic vegetation such as *Cyperus papyrus*, *Phragmites mauritianus* (reeds), *Typha capensis* (bulrush), and *Xyris spp*., which create breeding habitats for amphibians, aquatic insects, and waterfowl. These zones are crucial for water purification, nutrient cycling, and biodiversity maintenance, but are particularly sensitive to drainage, overgrazing, and conversion.

Lupane District (Tshongokwe)

The district is dominated by Miombo woodland and Kalahari sandveld savanna, characterised by a mix of Brachystegia spp., Julbernardia spp., Uapaca kirkiana, Combretum spp., Terminalia sericea, and scattered Acacia species. Grasses such as Hyparrhenia, Themeda triandra, and Aristida spp. provide important grazing resources for livestock. The well-drained sandy soils and drought-tolerant vegetation make the area suitable for both smallholder cropping and cattle grazing, while Miombo woodlands offer fuelwood, non-timber forest products, and habitat for wildlife. RACP interventions in Lupane focus on climate-smart agriculture, soil fertility improvement, and sustainable grazing management, taking advantage of the district's relatively flat terrain and resilient vegetation.

Hwange District (Lukosi, Msuna)

The district presents a contrasting vegetation pattern, reflecting its transitional topography from the low-lying Zambezi Rift Valley to the higher Kalahari sand plateau. The southern panhandle region is dominated by wooded savanna and seasonal pan thickets, with species including Colophospermum mopane, Acacia nigrescens, Acacia tortilis, Combretum spp., and Grewia spp. Grasses such as Loudetia simplex, Aristida spp., and Panicum maximum thrive in seasonal wetlands and pans, providing forage for livestock and wildlife. The mopane woodlands are well adapted to drought and fire, supporting grazing and rangeland productivity. For RACP, Hwange's vegetation presents opportunities for water-efficient cropping in pan margins, agroforestry, and soil and water conservation practices, ensuring that irrigation and land management interventions align with the unique landscape and biodiversity.

Nkayi District is characterised by vast, gently undulating Kalahari sandveld plains with sparse tree cover, dominated by Terminalia sericea, Combretum spp., Grewia spp., and scattered Acacia and Brachystegia species. The deep sandy soils support grasses such as Aristida spp., Hyparrhenia filipendula, and Panicum spp., which provide excellent pasture for livestock. This uniform landscape, combined with limited natural depressions, creates challenges for water retention but offers high potential for groundwater-fed irrigation, climate-smart cropping, and cattle ranching. Under RACP, Nkayi's vegetation and soil conditions necessitate interventions such as agroforestry, soil moisture conservation, and riparian-based cropping along the Gwayi River, enhancing agricultural resilience in the sandy plains.

Binga District features Miombo woodlands, riparian forests along Zambezi tributaries, and alluvial floodplain grasslands, with dominant species including Brachystegia spp., Julbernardia globiflora, Combretum spp., Uapaca kirkiana, Ficus spp., and Syzygium spp. Grass species

such as Hyparrhenia, Panicum spp., and Sporobolus spp. flourish in floodplain areas, providing grazing and soil stabilisation. The rugged, dissected terrain limits extensive cultivation, concentrating agriculture and livestock grazing along floodplains and riverbanks. For RACP, Binga's vegetation communities support small-scale irrigation, soil and water conservation measures, and the sustainable use of non-timber forest products, while maintaining biodiversity and ecological services in a highly topographically diverse district.

4.2.2 Fauna and Wildlife Corridors

The region supports a broad assemblage of wildlife adapted to its varied habitats. Large mammals such as *Loxodonta africana* (African elephant), Syncerus caffer (African buffalo), *Tragelaphus strepsiceros* (greater kudu), *Aepyceros melampus* (impala), and *Phacochoerus africanus* (warthog) are common in protected and semi-natural areas, while smaller species like *Sylvicapra grimmia* (common duiker), *Tragelaphus scriptus* (bushbuck), *Canis mesomelas* (black-backed jackal), and *Galerella sanguinea* (slender mongoose) occur in agricultural landscapes and communal rangelands Predators such as *Panthera pardus* (leopard), *Crocuta crocuta* (spotted hyena), and *Lycaon p*ictus (African wild dog) are found mainly in Hwange and adjacent protected corridors.

Avifaunal diversity is particularly high. River corridors, wetlands, and floodplains support *Haliaeetus vocifer* (African fish eagle), *Ardea cinerea* (grey heron), *Ciconia episcopus* (woolly-necked stork), *Alopochen aegyptiaca* (Egyptian goose), and *Phoeniconaias minor* (lesser flamingo). Grasslands and open woodland provide habitats for species like *Tockus leucomelas* (southern yellow-billed hornbill), *Coracias caudatus* (lilac-breasted roller), and *Numida meleagris* (helmeted guineafowl). Amphibians, including *Sclerophrys gutturali*s (guttural toad), *Ptychadena mascareniensis* (grass frog), and *Kassina senegalensis* (bubbling kassina), thrive in seasonal wetlands, while reptiles such as *Varanus niloticus* (Nile monitor), *Python natalensis* (African python), and *Crocodylus niloticus* (Nile crocodile) are present in riparian zones and water bodies.

These habitats form part of a larger ecological connectivity network linking miombo woodlands, riparian corridors, dambos, and protected areas such as Hwange National Park and Lake Kariba floodplains. Such connectivity is vital for wildlife migration, gene flow, and ecosystem resilience under increasing climate stress.

4.2.3 Sensitive Habitats

Riparian Zones and Wetlands: Riverbanks, floodplains, and seasonal wetlands are ecologically sensitive and essential for biodiversity, water filtration, and hydrological regulation. Disturbance can result in erosion, habitat loss, and reduced water quality.

Headwater Catchments and Springs: These serve as recharge zones and biodiversity hotspots; clearing, grazing, or infrastructure development reduces their ecological function.

Dambo Ecosystems: Seasonal wetlands are crucial breeding grounds for amphibians and waterbirds but are highly vulnerable to drainage, over-abstraction, and trampling.

Woodland Fragments: Remnant miombo woodlands act as biodiversity refuges and carbon sinks but are increasingly fragmented by land clearing, settlement expansion, and firewood collection.

4.2.4 Key Threats

Land conversion and habitat loss in the region are primarily driven by the expansion of agriculture and settlements, leading to deforestation, riparian encroachment, and wetland drainage. Overgrazing by concentrated livestock pressures degrades vegetation, compacts soil, and disrupts hydrology, further exacerbating environmental degradation. Unsustainable resource extraction practices, including firewood harvesting, charcoal production, and the overuse of non-timber forest products (NTFPs), significantly reduce woodland cover and biodiversity. Additionally, catchment degradation results from activities such as streambank cultivation, deforestation, and mining, which increase sedimentation and degrade water quality. The proliferation of invasive species like Lantana camara, Chromolaena odorata, and Opuntia ficus-indica further complicates these issues by displacing native vegetation and altering habitat structure, ultimately threatening ecological balance.

Hwange: Woodlands dominated by *Brachystegia* and *Combretum* species support elephants, buffalo, kudu, and leopard. Riparian zones along the Lukosi and Dete rivers host *Syzygium guineense and Trichilia emetica* and provide breeding grounds for *Haliaeetus vocifer and Ardea cinerea.* Key risks include deforestation for fuelwood and streambank degradation Plate 9.

Plate 9: Tree Species in Lukosi

Binga: Zambezi Valley habitats feature riverine forests with *Ficus sycomorus* and *Acacia sieberiana*, as well as alluvial grasslands supporting *Hippopotamus amphibius* and *Crocodylus*

niloticus. Lake Kariba wetlands are important for *Phoeniconaias* minor and Ciconia nigra. Pressures include overgrazing, charcoal production, and invasive species spread.

Nkayi: Savanna woodlands and seasonal wetlands host *Sylvicapra grimmia*, *Hacochoerus africanus*, and diverse amphibians. Key plant species include *Terminalia sericea* and *Piliostigma thonningii*. Degradation arises from overgrazing, streambank farming, and uncontrolled burning.

Lupane: Mixed woodland-grassland mosaics provide habitat for, *Tragelaphus strepsiceros* and *Varanus niloticus*. Dambos support amphibians and wetland birds such as *Alopochen aegyptiaca.* Sensitive seepage zones are threatened by cultivation and sedimentation Plate 10.

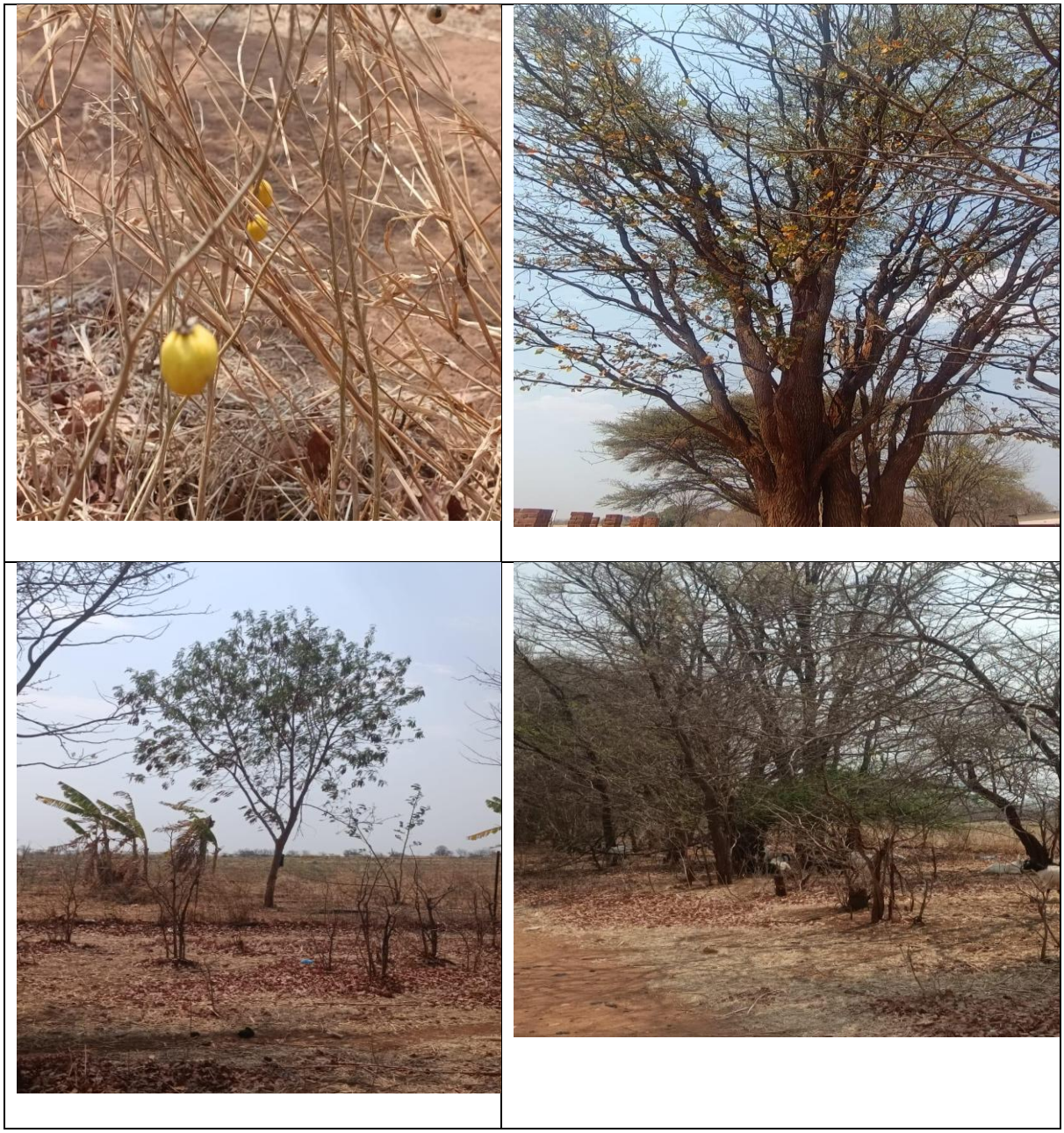

Plate 10: Tree Species in Tshongokwe

4.2.6 Overall Socio-Economic Insights for ESMP Integration

The Gwayi catchment, covering Hwange, Binga, Nkayi, and Lupane districts, is characterised by low to moderate population density, with households concentrated near rivers, pans, and irrigation schemes. Livelihoods rely primarily on rainfed subsistence agriculture growing maize, sorghum, millet, and groundnuts supplemented by livestock rearing and, in Binga, fishing along Lake Kariba. Water availability is a major constraint, with Nkayi and Lupane relying on groundwater, while Hwange and Binga face seasonal surface water shortages. Women and youth play central roles in farming, livestock, and trade, highlighting the need for inclusive participation in RACP interventions.

Infrastructure is limited, including roads, markets, and social services, while climate variability droughts, erratic rainfall, erosion, and soil degradation threatens productivity and livelihoods. For RACP and ESMP integration, key priorities include climate-smart irrigation, soil and water conservation, livelihood diversification, market access improvement, and targeted support for women and youth. These interventions aim to enhance agricultural productivity, resilience, and equitable rural development across all four districts.

Baseline Environmental and Social Setting

The baseline environmental and social setting provides a comprehensive overview of the conditions affecting the irrigation schemes within Matabeleland North, encompassing aspects such as land use, biodiversity, water resources, and socio-economic factors. This information is crucial for assessing potential impacts associated with the Resilience Agriculture Cluster Project (RACP) and for guiding effective management and mitigation strategies.

Data Limitations and Uncertainties

While this baseline assessment aims to portray an accurate depiction of the environmental and social contexts, several data limitations and uncertainties can affect impact predictions:

Hydrological and Water Resources Data

Hydrological and water resources data were limited, with few site-specific river flow or groundwater measurements, insufficient records of water abstraction, and incomplete information on seasonal variability and extreme events.

Climatic Data

Climatic data were sparse, relying largely on regional averages due to the limited number of meteorological stations, with inadequate high-resolution rainfall and temperature data for the micro-catchments and insufficient historical trends to assess climate variability.

3. Soil and Land Use Data

Soil and land use data were incomplete, including outdated land use maps, limited information on soil fertility and texture, and inadequate identification of erosion-prone or degraded areas.

4. Biodiversity and Ecosystem Data

Biodiversity and ecosystem data were also insufficient, with baseline surveys of flora and fauna largely lacking, limited records of sensitive habitats or species of conservation concern, and gaps in information on invasive species.

5. Socio-Economic Data

Socio-economic data were partially outdated or aggregated at the district level, constraining accurate estimation of household income, crop production, labour patterns, water use, and community access rights, while data on local governance and institutional capacity were limited.

6. Infrastructure and Technical Data

Technical and infrastructure data were incomplete, including records on irrigation infrastructure condition, energy supply reliability, and the prevalence of theft or vandalism.

7. Impact Predictions

- Uncertainty in water availability, seasonal shortages, and downstream flow impacts
- Reduced confidence in forecasting irrigation demand, drought risk, and crop yields
- Uncertainty in predicting soil erosion, sedimentation, and nutrient runoff
- Potential impacts on sensitive habitats or species may be overlooked
- Limited accuracy in predicting livelihood improvements, equitable access, and social conflicts
- Uncertainty in predicting energy reliability, operational risks, and maintenance needs.

Summary

Matabeleland North's biodiversity underpins ecological stability, water security, and agricultural productivity but is increasingly threatened by habitat conversion, land degradation, and climate variability. RACP must integrate biodiversity safeguards into irrigation design, prioritise the protection of riparian and dambo habitats, promote restoration of degraded woodland, and manage invasive species to sustain ecosystem integrity and resilience. Across the RACP province; Binga, Hwange, Nkayi and Lupane the landscape is largely semi-arid Kalahari sands supporting a mosaic of Mopane woodland (*Colophospermum mopane*), scattered *Faidherbia albida* and Acacia thornveld interspersed with *Hyparrhenia rufa*, *Themeda triandra* and *Eragrostis* grasses. Ephemeral rivers such as the Gwayi and its

tributaries create narrow riparian strips where sedges (*Cyperus rotundus*), *Ipomoea* creepers and herbs like *Bidens pilosa* and *Amaranthus spp.* colonise moist soils. This mix of tree canopy, grass sward and herbaceous layer supports wildlife typical of north-western Zimbabwe including impala, kudu, duiker and small carnivores, while wetlands and drainage lines provide habitat for aquatic invertebrates, frogs and wading birds. Dominant plant species include mopane, *Faidherbia, Brachystegia* and *Combretum*. Large mammals such as elephant, buffalo, antelopes and predators persist near protected areas, while a high diversity of birds, amphibians, pollinators and indigenous fish inhabit riparian and wetland habitats. This baseline provides the foundation for impact assessment and the design of mitigation measures such as buffer zones, catchment restoration, integrated pest management and sustainable water use to protect these assets while improving livelihoods.

4.3 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, scheme beneficiaries. Matabeleland North is a sparsely populated, semi-arid province where smallholder livestock, small grains and natural resource use dominate. Food and nutrition insecurity is recurrent in drought years. Women carry a heavy burden of water, fuelwood and care work, while youth migration is high.

Women and youth are pivotal in household production, subsistence farming, fishing, and small-scale trading, emphasizing the need for their inclusive participation in project planning and implementation. They also contribute significantly to crop cultivation, livestock care, and informal market activities, making their engagement essential for equitable access to project benefits. Women and youth are central to household food production, livestock rearing, and community-level enterprises, highlighting the necessity of their active involvement in project activities to ensure social inclusion and sustainability. Lastly in (Lupane District pge 81) women and youth play key roles in smallholder agriculture, poultry and livestock management, and local trade, underscoring the importance of gender- and youth-sensitive project interventions.

Binga

According to 2022 census figures, Binga has a total population of approximately 159,982 people, with 72,383 males and 87,599 females, indicating a higher proportion of females (about 55%) and a significant rural population. Children under age 15 constitute a large share of the

population, reflective of a young demographic profile. (Zimstat January 2023) They live in widely dispersed riverine and hinterland settlements. Livelihoods centre on sorghum, millet, goats and artisanal fishing. Ward populations near proposed irrigation interventions average 2 500–4 500 people with cash incomes below USD 50 per month. Binga District, located along the Zambezi Rift Valley in Matabeleland North, is characterised by rugged, dissected terrain and low-lying floodplains, with population settlements concentrated along the Lake Kariba shoreline and fertile valley floors. Livelihoods are predominantly subsistence agriculture and livestock rearing, constrained by limited arable land, sandy soils, and steep, erosion-prone slopes. Households cultivate drought-tolerant crops such as maize, sorghum, millet, and groundnuts, often supplemented by small livestock including goats, sheep, and cattle.

Fishing along Lake Kariba provides an additional source of income and nutrition for lakeshore communities, while forestry and non-timber forest products support rural livelihoods in the surrounding miombo woodlands. Infrastructure is limited, with poor road connectivity, restricted market access, and constrained social services including health and education facilities. Water availability is highly seasonal, with communities relying on riverine systems, shallow wells, and natural pans, making them particularly vulnerable to droughts, erratic rainfall, and climate shocks. Women and youth are central to household production, livestock management, and small-scale trading, highlighting the importance of inclusive participation in project interventions. Within the RACP framework, initiatives such as irrigation rehabilitation, solar-powered water systems, soil and water conservation, and climate-smart agricultural practices are critical to enhancing productivity, building resilience, and supporting sustainable livelihoods across Binga District.

Socio-Economic Baseline – Hwange District

Hwange District, located within the Gwayi catchment of Matabeleland North, is characterised by low population density due to rugged terrain and limited arable land, with households concentrated along river valleys and seasonal pans. According to the City Population (April 2022) the rural component of Hwange District had an estimated 69,357 people in 2022, with 33,676 males and 35,681 females, again showing more females than males. Most of the district population is rural, with only a very small urban population outside the main town, underscoring rural livelihood dynamics. Households combine small-scale maize and vegetables with casual labour in tourism or coal mining. Livelihoods are largely rainfed subsistence agriculture, cultivating drought-tolerant crops such as maize, sorghum, millet, and

groundnuts, complemented by livestock grazing on mopane woodlands and sandveld plains. Coal mining, forestry, and non-timber forest products provide important sources of income, while proximity to Hwange National Park offers limited tourism-related opportunities. Infrastructure is constrained, with gravel roads restricting market access during rains, and water and sanitation services are limited, increasing vulnerability to climate shocks.

The population is highly exposed to drought, erratic rainfall, soil degradation, and limited water availability, which affect both crop and livestock productivity. Women and youth play key roles in farming, livestock management, and small-scale trade, highlighting the need for inclusive project interventions. Under RACP, initiatives such as irrigation rehabilitation, solar-powered water systems, soil and water conservation, and climate-resilient agricultural practices are critical to enhancing productivity, reducing vulnerability, and supporting sustainable livelihoods across Hwange.

Socio-Economic Baseline – Nkayi District

Nkayi District is characterised by vast, gently undulating Kalahari sandveld plains with deep, well-drained sandy soils that support both cattle ranching and subsistence agriculture. The population is moderately dispersed, with households concentrated along the Gwayi River and other minor watercourses where access to water allows for small-scale cropping. Nkayi District's population was 112,471, consisting of 54,099 males and 58,372 females in the 2022 census (City Population 2022) Livelihoods are predominantly rainfed subsistence farming, producing crops such as maize, millet, sorghum, and groundnuts, complemented by livestock rearing, which serves as a key source of income, food security, and social capital. Water scarcity is a persistent challenge, as surface water is limited and highly seasonal, making households dependent on groundwater and shallow wells. Infrastructure is generally underdeveloped, with limited roads and market access, while social services such as schools and health facilities are concentrated in main settlements. Women and youth play central roles in farming, livestock care, and small-scale trade, highlighting the importance of inclusive participation. The district is vulnerable to drought, soil erosion, and nutrient depletion, emphasizing the need for RACP-supported climate-smart interventions, including groundwater-fed irrigation, soil and water conservation, agroforestry, and drought-tolerant crop production, to enhance agricultural productivity and resilience.

Socio-Economic Baseline –Lupane District

Lupane District's total population was approximately 107,248, with 51,095 males and 56,153 females per the 2022 census. (City Population 2022) Livelihoods focus on dryland crops and cattle, with women's groups active in horticulture but lacking equipment. Ward-level populations near the scheme average 3 000 with cash incomes under USD 80/month. Tshongokwe Irrigation Scheme livelihood activities major crops include maize, tomatoes, and sugar beans, supplemented by livestock farming (cattle, goats, and poultry). Other income sources include petty trading and crafts. The Tshongokwe irrigation scheme serves as a critical livelihood hub for smallholder farmers, supporting both subsistence crop production and livestock rearing. Households cultivate drought-tolerant crops such as maize, sorghum, millet, and groundnuts, while cattle and goats provide additional income, food security, and draught power. The population within the scheme area is moderately concentrated, with settlements located near water access points, yet communities face challenges including limited market access, water scarcity, aging irrigation infrastructure, and vulnerability to drought and erratic rainfall. Women and youth are actively engaged in scheme activities, from crop cultivation to post-harvest processing and local trading, making inclusive participation central to project success. Under RACP, interventions such as irrigation rehabilitation, solar-powered water systems, soil and water conservation, climate-smart agronomic practices, and capacity-building programs are designed to enhance agricultural productivity, strengthen livelihoods, and improve climate resilience for household's dependent on the Tshongokwe irrigation scheme.

The three irrigation schemes serve as critical sources of livelihood for the communities, primarily through agriculture. They emphasise gender equity, community involvement, and focus on enhancing income, nutrition, and resilience against climate change. Each scheme aims to improve operational efficiencies and market access, ultimately contributing to the socio-economic development of the regions they serve. The percentages for women, youth, and people with disabilities (PwD) based on the reports for each irrigation scheme.

Overall Socio-Economic Insights for ESMP Integration

The Gwayi catchment, covering Hwange, Binga, Nkayi, and Lupane districts, is characterised by low to moderate population density, with households concentrated near rivers, pans, and irrigation schemes. Livelihoods rely primarily on rainfed subsistence agriculture growing maize, sorghum, millet, and groundnuts supplemented by livestock rearing and, in Binga, fishing along Lake Kariba. Water availability is a major constraint, with Nkayi and Lupane

relying on groundwater, while Hwange and Binga face seasonal surface water shortages. Women and youth play central roles in farming, livestock, and trade, highlighting the need for inclusive participation in RACP interventions.

Infrastructure is limited, including roads, markets, and social services, while climate variability droughts, erratic rainfall, erosion, and soil degradation threatens productivity and livelihoods. For RACP and ESMP integration, key priorities include climate-smart irrigation, soil and water conservation, livelihood diversification, market access improvement, and targeted support for women and youth. These interventions aim to enhance agricultural productivity, resilience, and equitable rural development across all four districts.

4.3.1 Safety Baseline for RACP Target Districts

Lupane District

Lupane is characterised by extensive Kalahari sandveld plains with dispersed smallholder farming and livestock grazing communities. Access roads are mostly long, unpaved, and poorly maintained, becoming slippery and erosion-prone during the rainy season, which increases the risk of vehicle accidents. Heavy farm vehicles, tractors, and occasional commercial traffic share these roads, compounding the hazard. Within irrigation schemes, infield roads are unmarked and shared by pedestrians, livestock, bicycles, and farm machinery, creating high exposure to accidents. Some routes cross irrigation infrastructure such as canals or buried pipes, which may be vulnerable to sudden damage or collapse. Emergency response is delayed due to the long distance (20–30 km) to the nearest clinics or police services Table 14: Lupane Safety Summary.

Table 14: Lupane Safety Summary

Aspect	**Baseline Status**
Road safety	Long, unpaved roads; slippery and erosion-prone in rainy season; heavy farm and commercial vehicles increase accident risk
Infield safety	Unmarked, shared roads; pedestrians, livestock, bicycles, and farm machinery at risk; some roads cross irrigation infrastructure prone to damage
Emergency access	Delayed due to long distances (20–30 km) to clinics and police services

Hwange District

Hwange features rugged terrain with subsistence agriculture and small-scale mining activity. Access roads are mostly gravel, uneven, and poorly drained, with steep gradients in some areas, increasing accident risks, particularly in the rainy season. Heavy vehicles associated with mining and commercial transport further elevate the likelihood of collisions. Within irrigation schemes, such as Msuna and Lukosi, infield roads are unmarked and shared by pedestrians, livestock, bicycles, and tractors. Some sections pass over aging irrigation infrastructure, including mainlines and drainage structures, which are prone to cracks and leaks. Emergency response is limited, with many communities located over 25 km from health or police services Table 15.

Table 15: Hwange Safety Summary

Aspect	**Baseline Status**
Road safety	Long, unpaved roads; slippery and erosion-prone in rainy season; heavy farm and commercial vehicles increase accident risk
Infield safety	Unmarked, shared roads; pedestrians, livestock, bicycles, and tractors at risk; aging irrigation infrastructure increases risk
Emergency access	Delayed due to long distances (over 25 km) to clinics and police services

Hwange District is characterized by rugged terrain, where subsistence agriculture and small-scale mining activities prevail. The conditions contribute to significant safety concerns for residents and travellers.

Binga District

Binga District faces several safety challenges, particularly concerning its infrastructure and access to services. This safety baseline highlights the urgent need for improvements in infrastructure, road safety measures, and emergency service accessibility as part of the RACP initiatives in Binga District. Addressing these challenges will play a crucial role in enhancing community resilience and overall safety. Table 16.

Table 16: Binga Safety Summary

Aspect	**Baseline Status**
Road safety	mix of unpaved and poorly maintained roads, which can become hazardous, especially during the rainy season when they may become muddy and slippery.
Infield safety	unmarked and shared access roads where pedestrians, livestock, bicycles, and agricultural vehicles converge, creating potential safety hazards. Poorly designed intersections and lack of clear paths
Emergency access	Delayed due to long distances to clinics and police services

Nkayi District

Nkayi District faces several safety challenges related to infrastructure, transportation, and access to services. This safety baseline underscores the need for targeted improvements in road infrastructure, safety management practices, and enhanced access to emergency services as part of the Resilience Agriculture Cluster Project (RACP) in Nkayi District. Addressing these issues is vital for fostering a safer and more resilient community environment

Table 17.

Table 17: Nkayi Safety Summary

Aspect	**Baseline Status**
Road safety	unpaved and gravel roads that can be treacherous, especially during the rainy season when they become slippery and prone to erosion.
Infield safety	unmarked and shared access roads where pedestrians, livestock, bicycles, and agricultural vehicles converge, creating potential safety hazards.
Emergency access	Delayed due to long distances(over25km) to clinics and police services

4.3.2 Security Baseline for RACP Irrigation Schemes – Matebeleland North

The security landscape within the irrigation schemes in Matabeleland North presents distinct challenges that impact both agricultural productivity and community well-being. Physical security is a primary concern, as irrigation infrastructure, including canals, pipelines, and storage facilities, can be vulnerable to theft, vandalism, or damage from local wildlife,

compromising irrigation efficacy. Moreover, heavy equipment and machinery used for irrigation can attract security issues, necessitating protective measures. Compounding these challenges is the competition over water resources, which has become increasingly scarce due to climate variability. This competition can lead to conflicts among different user groups, particularly between traditional and commercial users, negatively affecting community cohesion and resource management. Additionally, land disputes often exacerbate these tensions, compromising the security of farmers and their investment in irrigation infrastructure.

Community safety is another critical aspect, as areas surrounding irrigation schemes may experience increased crime rates, including theft of produce and equipment, which can dissuade investment in agricultural improvements. Inadequate security measures, such as insufficient lighting and lack of surveillance, further heighten vulnerability to crime. Limited accessibility to emergency and law enforcement services can also hinder rapid responses to incidents, creating a sense of fear and insecurity among community members, particularly in remote areas.

To address these issues, enhanced security measures should be implemented, including community-driven strategies and partnerships with local authorities to protect irrigation infrastructure and ensure safety. Establishing conflict resolution mechanisms can help proactively address water-sharing disputes, promoting equitable resource distribution and dialogue among water users. Furthermore, engaging local communities in decision-making processes related to irrigation management can foster ownership and encourage peaceful coexistence. This security baseline highlights critical areas for intervention within the framework of the Resilience Agriculture Cluster Project (RACP), emphasizing the need for integrated approaches to enhance both agricultural productivity and community safety in Matabeleland North Table 18.

Table 18: Scheme-Level Security Issues Summary

Scheme	**Key Security Issues Identified in RPA**
Lukosi	Theft of irrigation pipes and fittings; vandalism of electrical transformer components; weak perimeter fencing; long access road limiting police response; livestock intrusion into plots.
Msuna	Insecure boundaries leading to livestock intrusion; vandalism of pumps and valves; lack of community engagement in security measures; insufficient lighting in critical areas; potential water disputes among users.

Scheme	Key Security Issues Identified in RPA
Tshongokwe	Weak perimeter fencing; history of equipment theft; unmonitored access points; risks associated with unauthorized tapping of water lines; fire hazards from surrounding bushland affecting infrastructure.

Consolidated Security Themes for ESMP Integration

Across all schemes, the following recurring security issues require inclusion in the ESMP's mitigation and monitoring framework:

- **Theft and vandalism of irrigation assets**, especially transformers, pipes, valves, solar components, and electrical cables.
- **Weak physical security infrastructure**, including inadequate fencing, broken gates, unlit pump stations, and unfenced mainlines.
- **Remote location of schemes**, resulting in slow police response and greater vulnerability to night-time incidents.
- **Livestock intrusion** into irrigation blocks due to damaged or incomplete boundary fences.
- **Wildlife-related threats**, particularly in Hwange.
- **Bush fires** threatening pump houses, field crops, and power lines.
- **Gendered safety concerns**, particularly for women farmers travelling early or late.
- **Limited governance and oversight**, with IMCs lacking structured security protocols, trained guards, or monitoring systems.

Gender and Culture

Hwange District – Gender and Cultural Baseline

In Hwange District, gender dynamics are influenced by traditional cultural norms that often prioritize male authority in decision-making processes, particularly within agricultural and resource management contexts. Women play a vital role in subsistence farming but frequently face barriers to accessing land, credit, and agricultural inputs. Traditional patriarchal structures can limit women's participation in community leadership and development initiatives. Additionally, cultural practices may perpetuate gender-based violence and discrimination, affecting women's health and well-being. The district's diverse cultural heritage includes various ethnic groups, each with unique traditions that impact social roles and expectations. Efforts to promote gender equality in Hwange must navigate these cultural complexities while engaging men as allies in the pursuit of equitable resource distribution and decision-making.

Lupane District – Gender and Cultural Baseline

Lupane District exhibits significant cultural diversity, with various ethnic communities that influence gender roles and expectations. Traditional beliefs often dictate that men are the main decision-makers, particularly in economic activities and land ownership. While women contribute substantially to agricultural production, they are typically constrained by limited access to resources and education. This limits their capacity to engage fully in the local economy and decision-making processes. Cultural norms can also restrict women's mobility and participation in public life, impacting their ability to advocate for their rights and access essential services. Initiatives focusing on gender equality in Lupane must consider these cultural contexts and provide supportive frameworks that empower women while also fostering collaboration with male counterparts to challenge prevailing norms.

Binga District – Gender and Cultural Baseline

Binga District is characterized by a rich cultural tapestry influenced by indigenous traditions that often shape gender roles in agricultural practices and community leadership. Women play critical roles in food production and household management. However, they frequently face challenges, including limited property rights and lesser access to resources compared to men. Cultural beliefs may discourage women from participating in decision-making processes, both at home and within the wider community. Traditional customs can also perpetuate gender inequalities, impacting women's health and economic opportunities. Addressing these gender disparities in Binga requires culturally sensitive strategies that promote women's empowerment and involve men in the dialogue, aiming for community-wide shifts in attitudes toward gender equality.

Nkayi District – Gender and Cultural Baseline

In Nkayi District, gender roles are often shaped by traditional cultural practices that align with patriarchal structures, which can limit women's decision-making power and access to resources. Women are heavily engaged in subsistence farming, yet they often struggle to secure land ownership and economic independence. Cultural norms may also contribute to gender-based discrimination and hinder women’s participation in community governance. In contrast, there is a growing recognition of women’s contributions to agriculture and economic development, leading to initiatives that seek to empower women through education and skills training. Efforts to promote gender equality in Nkayi must work within the cultural framework, engaging community leaders and stakeholders to foster a more inclusive environment where women can thrive alongside their male counterparts Table 19.

Table 19: Summary of Gender and Cultural Context

District	Gender Dynamics	Cultural Context	Key Implications for RACP
Hwange	Women are crucial in subsistence farming but face barriers to land, credit, and decision-making; traditional norms hinder participation in community leadership; GBV remains a concern.	Patriarchal structures dominate; cultural heritage varies among ethnic groups, influencing gender roles and expectations.	Focus on empowering women through access to resources and training; engage men as allies; promote safe spaces and awareness programs to address GBV.
Lupane	Traditional beliefs prioritize men in decision-making; women contribute significantly yet lack access to education and resources; mobility restrictions limit participation.	Cultural diversity shapes gender roles; community practices reinforce male authority, often sidelining women.	Develop programs that enhance women's access to education and resources; foster male engagement to challenge norms; create platforms for women's voices in decision-making.
Binga	Women are central to food production but limited by property rights and economic independence; cultural beliefs can restrict their participation in public life.	Indigenous traditions influence gender roles; women's contributions are often undervalued within community structures.	Promote gender-sensitive initiatives that enhance women's economic opportunities and participation; encourage community dialogue to shift perceptions of gender roles.
Nkayi	Women engaged in subsistence agriculture face barriers in land ownership; traditional customs can perpetuate discrimination and restrict public involvement.	Patriarchal norms prevail; there is a growing recognition of women's roles in development, yet cultural practices still limit their influence.	Empower women through education and training; engage community leaders to facilitate cultural shifts; enhance inclusive governance structures to include women's perspectives.

4.3.3 Health

Hwange District

Hwange District has an estimated population of around 170,000 (2022 census), with a relatively balanced gender ratio. Health challenges are significant, particularly regarding chronic undernutrition, which affects food security and dietary diversity. The prevalence of stunting

among children under five is a concern, likely mirroring national figures of approximately 24%. The district's socio-economic context, influenced by its mining activities and workforce mobility, may further exacerbate health risks, including an elevated HIV prevalence, which is estimated to be around or above 13% in surrounding areas. Water-borne diseases remain a pressing issue, with recent outbreaks highlighting inadequate sanitation and contamination of water sources. Access to improved sanitation facilities is below 60% in some areas, increasing the risk of diarrhoeal diseases. Additionally, the presence of standing water from irrigation practices raises the likelihood of malaria outbreaks. For effective RACP planning, there is a critical need for nutritional interventions targeting vulnerable populations, increased HIV/STD awareness, and robust water, sanitation, and hygiene (WASH) as well as vector control measures.

Lupane District

Lupane District's population is approximately 135,000 (2022 census), with an almost equal division between males and females. Chronic undernutrition is prevalent, with many households facing food insecurity and limited dietary diversity, potentially leading to similar stunting rates in children as seen in other rural districts. The HIV prevalence in Matabeleland North hovers around 13%, and Lupane's rural lifestyle and agricultural practices may result in comparable or slightly higher rates. Additionally, water-borne diseases are a significant concern, with inadequate sanitation infrastructure contributing to health risks. Recent reports indicate that access to improved sanitation is limited, which raises the likelihood of diarrhoeal diseases among children and vulnerable populations. Furthermore, malaria transmission is impacted by irrigation practices, leading to higher incidence rates in certain areas. In planning for the RACP, there is a pressing need for interventions focused on enhancing nutrition, promoting HIV prevention and awareness, and implementing effective WASH initiatives and vector control strategies

Binga District

Binga District has an estimated population of about 140,000 (2022 census), with a balanced gender representation. The district struggles with chronic undernutrition, reflected in high stunting rates among children under five, compounded by food insecurity and limited dietary options. HIV prevalence in the region is estimated at around 13%, particularly influenced by socio-economic factors, including mobility related to fishing and small-scale trade. Water-borne diseases pose a significant health threat, with poor sanitation contributing to ongoing

outbreaks of diarrhoeal illnesses. Access to improved sanitation facilities is reported to be below 60%, exacerbating health risks in vulnerable communities. Moreover, irrigation practices in Binga have been linked to increased malaria outbreaks due to standing water. For the RACP, it is essential to focus on nutritional support programs, awareness campaigns for HIV/STDs, and implementing strong WASH practices alongside effective vector control measures.

Nkayi District

Nkayi District's estimated population is approximately 180,000 (2022 census), with an even distribution of males and females. Chronic undernutrition remains a critical issue, with high rates of stunting among children under five, driven by food insecurity and limited access to diverse diets. The HIV prevalence in the district aligns with regional statistics of about 13%, influenced by local socio-economic dynamics. Water-borne diseases, particularly diarrhoeal illnesses, are prominent due to inadequate sanitation facilities, with access below 60% in some communities. This situation is further complicated by periodic malaria outbreaks linked to irrigation practices that create standing water. In terms of RACP planning, addressing nutritional needs for children and pregnant women, increasing awareness about HIV/STD prevention, and strengthening WASH infrastructure and vector control measures are essential for improving community health outcomes.

4.4 Stakeholder Engagement

4.4.1 Rationale for Consultation and Disclosure

In Zimbabwe, public participation is enshrined by law [Environmental Management Act; Chapter 20:27 and National Environmental Policy and Strategies] to allow the public to express their concerns in any developmental activities that could affect their lives. According to the National Environmental Policy (June 2009), people have a right to be consulted and heard on developments that may affect their lives, property and surroundings. Public participation promotes sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers. Public consultation also paves the way for mutual relationships and creates a sense of ownership of the project in the minds of all stakeholders. The public consultation process also provides useful information that can help the proponent improve project design and outcomes, and it forms the basis on which future collaboration with all concerned parties can be established.

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.
- **Enhancing Transparency -** Fostering transparency and accountability in decision-making processes.

4.4.2 Methodology of Engaging Stakeholders

Stakeholders were engaged through various methods.

- **Public Consultative Meetings:** These meetings involved communities and technical officials from relevant government ministries.
- **Key Informant Interviews:** Interviews were conducted with key informants related to the proposed project, e.g., DDC and RDC engagement.
- **Physical Site Visits and Inspections**: These visits included discussions with community leaders, community and irrigation members.
- **Inclusive Participation**: Consideration of gender, vulnerable groups and various age groups during consultative processes.

4.4.3 Summary of Key Stakeholders Findings

Table 20 Responses of Key Stakeholders

District	Views / Concerns / Benefits	Status
Binga RDC / DDC	***Benefits:*** *The project is expected to enhance household food security, improve livelihoods through increased agricultural productivity, environmental and natural resources management and strengthen market linkages for smallholder farmers. It will also contribute to local economic development and employment creation.* ***Concerns:*** *Stakeholders emphasized the need for sustainable water abstraction from rivers and reservoirs, protection of fisheries and aquatic ecosystems, and adoption of soil and water conservation measures. There is also a need to ensure inclusive participation of women and youth and equitable benefit sharing among communities. Need to apply Indigenous*	Done

Knowledge Systems when development is taking place (See

RURAL DISTRICT COUNCIL

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

Introduction.

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

RESPONDENTS INFORMATION

a) Title (Mr/~~Mrs/Dr/Prof/Rev~~) & Name Lakemore Siamayi
b) Occupation/ Designation Executive officer Environment
c) Organization: Binga RDC. Landline: 015-271
d) Physical Address Box 36
e) Email Address: binga rdc@gmail.com / siamayi4444@gmail.c

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matabeleland North 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?
Employment creation.
Improved livelihoods.

CHIEF EXECUTIVE OFFICER
BINGA RURAL DISTRICT COUNCIL
14 NOV 2025
P.O. BOX 36 BINGA
TEL: 267 449

RURAL DISTRICT COUNCIL

Improved Community projects

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

Yes [✓] No [ ]

If yes explain

1) Engagement is not done consulting
2) community values are not considered
3) this projects operates outside office

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

Not found

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

Observe cultural norms and procedures

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

1. observe animal constraints
2. Consider climate change plan of the
3. conduct an EIA.
4. Employment should consider locals
5. Proponent to always liaise with local

Signature _____ Date 14 / 11 / 2

DATE STAMP:

CHIEF EXECUTIVE OFFICER
BINGA RURAL DISTRICT COUNCIL
14 NOV 2025
P.O. BOX 36, BINGA
TEL.: 267/449

	Appendix 9: Binga DDC)	
Hwange RDC / DDC	**Benefits:** The project will improve irrigation infrastructure, stabilize agricultural production under drought-prone conditions, enhance household incomes, and improve access to markets. Employment opportunities are expected during construction and operation phases. Climate proof agriculture and drought resilient mitigation strategies will be followed. **Concerns:** Key concerns included frequent power outages, vandalism and theft of infrastructure, and potential conflicts over water use. Stakeholders stressed the importance of engaging traditional leadership and local institutions, as well as ensuring security and reliable energy solutions. Endangered species to be protected. (See Appendix 6)	Done
Lupane RDC / DDC	**Benefits:** Anticipated benefits include improved food security, increased crop yields, enhanced livelihoods, and strengthened local value chains. Improved infrastructure is expected to contribute to broader rural development outcomes. **Concerns:** Stakeholders raised concerns regarding land use planning, equitable access to irrigation water, and potential environmental impacts such as soil erosion and water contamination. Capacity building for scheme management committees and inclusion of women and youth was highlighted as critical. (See Appendix 5)	Done
Nkayi RDC / DDC	**Benefits:** The project is expected to support livelihood diversification, improve household incomes, create employment, and improve market access for agricultural produce. **Concerns:** Concerns focused on land tenure and ownership issues, potential social conflicts, and impacts on cultural or sacred sites. Stakeholders emphasized the need for continuous engagement with traditional leaders, clear grievance redress mechanisms, and monitoring of social and environmental impacts. (See Appendix 10)	Done

Project Understanding and Community Expectations

The RACP was introduced to the communities as a build-up from the previous SACP, aimed at combating climate change and enhancing farmer productivity through climate-smart agriculture. Key aims include rehabilitating feeder roads, implementing solar irrigation, improving market access, supporting afforestation, promoting smart agriculture, ensuring equal opportunities, and climate proofing. However, a recurring theme across the consultations was a strong need for clarity on how the project will work in practice.

4.4.3.1 Community Meetings

Community meetings were held in the two districts, Hwange and Lupane Irrigation schemes The meetings were held in the presence of SIRDC, SACP representative and ICM community leadership The project was explained so that the communities would get an understanding of the community engagement meetings. Their views, concerns and mitigation measures were recorded below. The purpose of the meetings was:

- Rehabilitation of the irrigation scheme
- Climate-smart agriculture
- Market surveys
- Solar-powered irrigation schemes
- Road rehabilitation

Expectations of the community

- To revitalise irrigation schemes by restoring land and water sources
- Installing solar-powered irrigation schemes
- Introducing climate-smart agriculture
- Sourcing markets for farm produce
- Promoting gender equity on the schemes
- Afforestation.

SIRDC were tasked to do an ESMP for the RACP project, hence the need for a stakeholder consultation for the project.

Table 21: List of Community Meetings Held.

Date	Community	Minutes and registers
16/10/25 Morning	Msuna Irrigation Scheme	Appendix 1

16/10/0 Afternoon	Lukosi Irrigation Scheme	Appendix 1
17/10/25 Morning	Tshongokwe Irrigation Scheme	Appendix 1

Msuna Irrigation Scheme

During the meeting, the IMC introduced themselves to the floor. The Agritex officer then introduced the RACP team. The project was introduced to the farmers, noting that it builds on the SACP project with the main purpose of revitalising the irrigation schemes. The farmers wanted to understand what RACP was really about, and it was explained as project implementers whereby the government sources funds to rehabilitate irrigation schemes (Plate 11). They knew about SACP, now the coming in of RACP was now difficult for them to understand. The SACP project has not commenced yet, but now RACP comes in. The projects were taking too long to commence. That was the main worry of the farmers. Benefits of the project included that farmers will now be able to buy even trucks to carry their goods to the market, and if the scheme is now running, boreholes can be drilled so that farmers will not go and fetch water by themselves in the crocodile-infested river.

Plate 11: Community Meeting at Msuna Irrigation Scheme

Concerns & Expectations

- Pipes and sprinkler pumps

- A fence is needed around the fence, as sometimes hippos come in and destroy crops.
- More pipes are needed so that water is always available even when water is low.
- A water reservoir is needed at the exchange.
- Storage room which is much stronger to withstand the strong winds from the Zambezi River.
- Toilets are needed in the fields; only one is available.
- A shack is needed for meetings.
- Mechanical ploughs or tractors are needed.
- Equipment to pack produce from the remains of the crops after harvest.
- Dams are bringing money in the names of schemes, but in the end, the money does not benefit them. It happens. Money should be channelled to the irrigation scheme account.
- Local labour should be paid for.
- People should get enough explanation when construction workers come in, whether they are working for money or for free.
- Social ills may become rampant with the coming in of construction workers.
- The local people should be trained in technical jobs or plumbing pipe installation so as to avoid paying people from outside.
- Need for first aid kit facilities in the scheme in case of emergencies.
- The farmers are now staggering farming as the control box cannot cater for the whole farm.
- The construction consultants coming in to work or do projects should be introduced to the farmers and agree on the scope & TORs with the farmers.
- No markets for produce, especially maize.

Lukosi Irrigation Scheme - Hwange

The IMC members introduced themselves to the meeting. The Agritex officer then introduced the whole team to the farmers (see Plate 12). The RACP project was explained as building up from the SACP project. Mainly to combat climate change issues.

Benefits

- Employment creation
- Food security
- Ready markets for the produce
- Good health
- Youth empowerment

Plate 12: Community Meeting for Lukosi Irrigation Scheme

Expectations/Concerns

- Boundary fence and gates
- Solar-powered boreholes
- The canal system needs to be rehabilitated.
- Project leaders should first approach the farmers before the project commences. The community was happy with the RACP community engagement.
- Fear of being arrested over water disputes
- Siphons have leakages
- Block C is not being utilised because of the limited water supply
- Need a ready market for their farm produce
- Climate-proofing agriculture
- Region 5 is very hot, so there is a need for greenhouses at the scheme
- Farmers fear being displaced due to expansion.
- The plough needs to be repaired or a suitable one for the scheme.
- Storerooms for equipment near the fields.
- Toilets
- The tractor needs to be repaired, and also the water shed.
- Need fertilisers, no inputs at the scheme, since there are no Agro dealers nearby.
- Portable borehole drinking water needed
- Farmers need feedback after consultations

- Agreement with farmers on the way forward after the success of the projects
- Construction work may cause or lead to pregnancy in the girl child. Children should be kept off the corners of coming in of construction workers.
- Local people should be employed to help the qualified personnel. Outsiders should be employed only when they can't get qualified personnel from the community.
- Men are also affected, as women are also affected by the money from the construction workers.

Priorities

The construction of fences is necessary to protect crops and delineate property boundaries, while installing boreholes will ensure a reliable water supply for irrigation and livestock. Developing canals is essential for effective water management and distribution across the farmland. Additionally, signage should be implemented to provide clear information and direction for all users of the agricultural area. Improving sanitation and hygiene for the farming community necessitates the installation of flush toilets. A warehouse for storage is required to safely keep agricultural inputs and harvested produce, and providing necessary inputs, such as seeds and fertilisers, will enhance crop production and productivity. Finally, dam scooping is needed to improve water storage capacity and facilitate better irrigation practices.

Farmers feared that their garden might be taken over after help was offered. During the meeting, they were assured that Lukosi's scheme was for the farmers, and whatever help was offered, remains with and for the farmers. It was also noted that the dam is for the farmers, which the farmers believed to be theirs. But now people were coming in to take water from the farmers, and the farmers no longer have control of the dam, and water is now limited for the irrigation scheme.

Tshongokwe Irrigation Scheme

The community expected the benefits of the irrigation scheme to be multifaceted, contributing significantly to the local community. Firstly, it creates employment opportunities, which in turn improve livelihoods and generate income for families. Enhanced food security is another crucial benefit, as increased agricultural production ensures that communities have access to sufficient food supplies. Additionally, the provision of vehicles and trucks for transporting produce facilitates market access, further boosting income generation. The overall health of the community also improves due to better nutrition and access to resources. Furthermore, the initiative promotes improved land management and sanitation practices, leading to a cleaner

environment. Finally, the empowerment of youth through skills development and job opportunities fosters a more engaged and productive generation, ensuring sustainable community growth (see Plate 13).

Concerns/Expectations of Farmers

- Coming in of construction workers can cause social ills and unwanted pregnancies; on the other hand, families and marriages can be formed.
- Behaviour awareness between contractors and the community
- Women should also be employed in construction work.
- The dam is silted and needs to be deepened and scooped, if
- possible, increase the dam wall
- Gardens should be installed to prevent sand from flowing into the Dam.
- Some farmers are practising streambank cultivation near the dam hence resulting in river siltation.
- People should be encouraged to refrain from practising streambank cultivation.
- Market competition with other farmers

Plate 13: Community Meeting at Tshongokwe Irrigation Scheme

4.4.3.2 Responses from Local Authorities

The local authorities were consulted, and their contacts were recorded in Table 22. Their views and concerns will also assist in coming up with the Environmental and Social Management Plan

Table 22: Key Stakeholders Consulted

Name	Organisation	Mode of consultation	Contact	Comment
Mrs Msitheli Mrs Sithole	Lupane DDC	Questionnaire	0782082314 0779341245	Responded
Mr Hadebe/ Mrs. Sithole	Lupane RDC	Questionnaire	0772460026 0779341245	Responded
Mr. Sambali	Nkayi DDC	Questionnaire	077821131	Responded
Mr. Silibele Mpofu	Nkayi RDC	Questionnaire	0773877261	Responded
Siansolo Kabome	Binga DDC	Questionnaire	0778594603	Responded
Joshua Musamba	Binga RDC	Questionnaire	0772933081 0772332050	Responded
Mr. Mapani:	Hwange RDC CEO	Questionnaire	0772 942 573	Responded
Simon Muleya	Hwange DDC	Questionnaire	0772280761	Responded

Table 23: Summary of Findings From Local Authorities

District	Benefits, Views and Concerns	Mitigation Measures
Lupane RDC & DDC	• RDC team stressed that dam siltation was the main cause of concern. • They also expect gender mainstreaming, particularly looking at the development of the community. • The youth and people with disabilities should also be included (Appendix 5).	• Siltation Management Plan • Community-based Siltation Control • Inclusive Planning and Participation • Inclusion of Youth and People with Disabilities
Binga RDC & DDC	• Climate proof Agriculture • Drought resistance mitigation strategies • Improved community livelihoods	• Address cooperative group dynamics • Promote and distribute drought-resistant and climate-adapted seed varieties
Nkayi	• Climate proof agriculture • Drought resilient mitigations • Improved community livelihoods • Improved diet, Infrastructural development • Address nutrition issues	• Consult traditional leaders • There is need to address land degradation issues

District	Benefits, Views and Concerns	Mitigation Measures
	• Mechanization of boreholes Disaster Risk Management	
Hwange RDC & DDC	• Climate proof agriculture • Drought resilient mitigations • Improved community livelihoods • Improved diet, Infrastructural development	• Consult the local traditional leadership • Address cooperative group dynamics • Preservation of indigenous trees and species.

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

1. Civil Works for Irrigation Infrastructure

Rehabilitation of canals, lining, desilting of night-storage dams, construction of pumping units and installation of solar-powered Village Business Units will involve excavation, earthworks and heavy vehicle traffic. These activities may temporarily disturb soils, remove vegetation, generate dust and noise, and increase risks of fuel or oil spills.

Kulima Mbobumi (Msuna) Irrigation Scheme

The scheme includes a drag hose sprinkler irrigation system designed to enhance water distribution. There are narrow access roads between plots that require widening for better traffic flow during operations. Basic water and sanitation facilities are present, but improvements are needed to ensure safe drinking water. Infrastructure is experiencing challenges such as leaking pipes and inadequate drainage, requiring urgent rehabilitation.

Lukosi Irrigation Scheme

The scheme uses a combination of surface and drip irrigation systems. Canals and pipelines are essential for water conveyance. Access is facilitated by a tarred road leading to the scheme, although road maintenance is needed. Water is sourced from the Kalope dam, requiring effective management to mitigate siltation and pollution. There are issues with leaking canals and drainage systems that need addressing to improve irrigation efficiency.

Tshongokwe Irrigation Scheme

The scheme features both flood and drip irrigation systems, with significant investments in solar-powered boreholes for water supply. Access roads are in fair condition but require

maintenance and upgrades. The scheme relies on the Tshongokwe Dam for water, with concerns about siltation and reduced inflows due to environmental factors. There are issues with leaking infrastructure and the need for improved drainage systems.

The civil works across the three irrigation schemes focus on constructing and maintaining irrigation systems, access roads, and water management facilities. Each scheme faces challenges related to infrastructure maintenance, water quality, and efficient drainage, highlighting the need for ongoing investment and rehabilitation to enhance agricultural productivity and community resilience.

2. Catchment Restoration and Water-Harvesting Works

The development of rainwater-harvesting ponds, gully reclamation and planting of five million trees across degraded areas will require earth moving, temporary stockpiling of materials and the transport of seedlings and labourers. Although beneficial in the long term, these works may initially disturb habitats and expose soils if not carefully phased.

Kulima Mbobumi (Msuna) Irrigation Scheme

The scheme benefits from water abstraction from the Zambezi River. However, there is a need for enhanced catchment management to address challenges like water recession and sedimentation. Recommendations include implementing erosion control measures and improving water retention in the catchment area to enhance water availability during dry seasons.

Lukosi Irrigation Scheme

The Kalope Dam, the primary water source, faces issues such as siltation due to upstream mining activities and unregulated settlements. There is a need for soil and water conservation practices to improve inflows and reduce sedimentation, ensuring a sustainable water supply for irrigation.

Tshongokwe Irrigation Scheme

The scheme relies on the Tshongokwe Dam, which is strained during periods of low rainfall. Catchment management is crucial for maintaining water levels. Strategies for catchment restoration include planting vegetation to reduce erosion, implementing soil conservation techniques, and exploring alternative water sources, such as the nearby Tshangane River, for abstraction.

Catchment restoration and water-harvesting works are essential across the three irrigation schemes to improve water availability and quality. Effective management practices, including soil conservation and vegetation planting, are recommended to mitigate the impacts of erosion and siltation, thus ensuring sustainable agricultural practices and enhancing resilience against climate variability.

3. Expanded Irrigation and Agricultural Operations

During operation, the increased command areas and higher cropping intensity will raise water abstraction from rivers and dams, increase agrochemical use and create risks of runoff into nearby watercourses. It will also generate new solid and liquid waste streams requiring systematic management.

Kulima Mbobumi (Msuna) Irrigation Scheme

The Kulima Mbobumi (Msuna) Irrigation Scheme utilises a drag hose sprinkler irrigation system, enabling efficient water distribution across its 12 hectares. Farmers engage in crop diversification, growing a variety of crops such as maize, groundnuts, and vegetables, which enhances food security and income generation for the community. However, the scheme faces operational challenges related to water management, particularly during periods of low river flow, which disrupts irrigation schedules. To improve productivity, recommendations include upgrading the irrigation system and increasing the area under cultivation, thereby maximising the potential of the scheme.

Lukosi Irrigation Scheme

The scheme employs both surface and drip irrigation systems across 28.5 hectares, designed to maximise water efficiency. Farmers cultivate a range of crops, including wheat, sugar beans, and various vegetables, with a focus on market-oriented production. Water supply from Kalope Dam is often strained, particularly during the dry season, which limits irrigation capacity. Suggestions include exploring additional water sources and enhancing infrastructure to support expanded agricultural operations.

Tshongokwe Irrigation Scheme

The Tshongokwe Irrigation Scheme features both flood and drip irrigation systems, which have recently been upgraded to modernise the infrastructure and enhance efficiency. Major crops cultivated in the scheme include maize, tomatoes, and sugar beans, with a strong focus on

maximising yield and profitability. However, farmers are currently facing operational challenges, particularly water shortages caused by siltation in the dam, which negatively impacts irrigation schedules and crop yields. To address these issues, there are plans for expansion that include improving water storage facilities and exploring alternative water sources to sustain agricultural operations effectively.

Expanded irrigation and agricultural operations across the three schemes focus on improving water management and crop diversification to enhance productivity

4. Market, Road and Post-Harvest Infrastructure

Upgrading of feeder roads, establishment of mobile markets and construction of post-harvest centres with cold rooms will alter local traffic flows, attract non-resident workers and traders, and change existing socio-economic patterns. Without adequate planning, these developments may contribute to road safety hazards and pressure on local services.

Kulima Mbobumi (Msuna) Irrigation Scheme

The Kulima Mbobumi (Msuna) Irrigation Scheme has limited market infrastructure, as farmers primarily sell their produce in local markets and face challenges accessing larger markets, which affects their pricing power. The road infrastructure consists of narrow access roads that require widening to facilitate better transportation of goods and agricultural inputs, particularly during harvest periods. Additionally, the scheme lacks adequate post-harvest storage facilities, resulting in potential losses due to spoilage. Improving storage solutions is essential to enhance the marketability of their produce and minimise waste.

Lukosi Irrigation Scheme

In the Lukosi Irrigation Scheme, farmers have established connections with local markets and occasionally supply larger markets in nearby cities. However, they encounter challenges related to market access and delayed payments. The access road to the scheme is tarred but needs maintenance to ensure reliable transportation for both produce and agricultural inputs. Furthermore, better post-harvest storage facilities are necessary to prevent losses and improve the quality of produce before it reaches the market. Enhancements in these areas would significantly benefit the farmers' economic stability.

Tshongokwe Irrigation Scheme

The Tshongokwe Irrigation Scheme involves farmers who engage with various markets, including local vendors and regional markets, but they struggle to secure consistent contracts and buyers. The access roads to the scheme are in fair condition, although some areas may require improvements to facilitate better access. Post-harvest infrastructure is limited, affecting the ability to store produce effectively and manage supply during peak seasons. Recommendations for enhanced post-harvest facilities are crucial to minimise losses and improve the readiness of produce for market demand. Investments in these infrastructures are vital for boosting the scheme's overall productivity and sustainability

5. Training and Capacity Building Activities

Large training events for farmers and scheme committees will concentrate people at a single venue. Temporary facilities, water supply and sanitation measures will be needed to prevent disease transmission and ensure safe working conditions. Across the three irrigation schemes, training and capacity building activities play a vital role in empowering farmers with the skills and knowledge necessary for successful agricultural practices. Emphasising sustainable techniques, financial management, and market access, these initiatives aim to enhance productivity, resilience, and economic viability within the communities. By fostering a culture of continuous learning and collaboration, the schemes are better positioned to adapt to challenges and capitalise on opportunities in the agricultural sector.

6. Community Health and Safety Considerations

The combination of open canals, increased movement of people and new infrastructure introduces potential safety risks such as canal drownings, misuse of agrochemicals, gender-based violence and child labour if not managed through targeted safeguards.

Community health and safety considerations across the three irrigation schemes emphasise the importance of ensuring access to clean water and adequate sanitation facilities.

At the Kulima Mbobumi (Msuna) Irrigation Scheme, farmers currently rely on the Zambezi River for drinking water, which poses health risks due to potential contamination. Efforts are underway to improve water quality and promote hygiene practices to reduce waterborne diseases. In the Lukosi Irrigation Scheme, concerns about water quality from the Kalope Dam, which is at risk of pollution from upstream mining activities, are significant. Community health education programs are crucial for raising awareness about safe water use and sanitation. While

there are basic ablution facilities, improvements are needed to meet health standards. The Tshongokwe Irrigation Scheme emphasises providing potable water through solar-powered boreholes, benefiting both farmers and the surrounding community. However, there are concerns about the adequacy and maintenance of sanitation facilities. Training on hygiene practices and managing irrigation-related hazards is important to ensure the health and safety of the community.

7. Waste Management and Pollution

Waste management and pollution are critical concerns across the three irrigation schemes, impacting both agricultural productivity and community health. In the Kulima Mbobumi (Msuna) Irrigation Scheme, the reliance on the Zambezi River for drinking water poses contamination risks, underscoring the need for effective waste management practices to prevent waterborne diseases. The Lukosi Irrigation Scheme faces challenges related to pollution from upstream mining activities affecting the Kalope Dam, necessitating stringent measures to manage waste and protect water quality. Similarly, in the Tshongokwe Irrigation Scheme, while solar-powered boreholes provide potable water, there is a need to address waste disposal and pollution from agricultural activities to ensure sustainable operations. Implementing comprehensive waste management strategies and promoting pollution control measures are essential for safeguarding water resources and enhancing the overall health and safety of the communities involved in these irrigation schemes.

8. Biodiversity and Ecosystem Pressures

Biodiversity and ecosystem pressures are significant considerations across the three irrigation schemes, impacting both environmental sustainability and agricultural productivity.

In the Kulima Mbobumi (Msuna) Irrigation Scheme, the reliance on the Zambezi River for irrigation affects local ecosystems, particularly during periods of low water flow, which can disrupt aquatic habitats and biodiversity. The Lukosi Irrigation Scheme faces pressures from upstream mining activities that contribute to siltation and pollution in the Kalope Dam, threatening aquatic life and the overall health of the ecosystem. The increased demand for water also places stress on surrounding natural resources, highlighting the need for sustainable management practices. In the Tshongokwe Irrigation Scheme, land use changes and agricultural practices can lead to habitat degradation and loss of biodiversity. The scheme's reliance on both flood and drip irrigation systems requires careful consideration of water usage to avoid over-extraction from natural sources.

Addressing biodiversity and ecosystem pressures is crucial for maintaining the health of local environments, ensuring sustainable agricultural practices, and supporting the resilience of the communities that depend on these irrigation schemes. Implementing conservation measures and promoting sustainable resource management can help mitigate these pressures and enhance ecosystem integrity.

9. Water Resource Conflicts

Water resource conflicts are a significant concern across the three irrigation schemes, arising from competing demands and limited availability of water.

In the Kulima Mbobumi (Msuna) Irrigation Scheme, reliance on the Zambezi River can lead to conflicts among different user groups, especially during dry seasons when water levels fluctuate. Farmers often face challenges in accessing sufficient water, which can strain relationships with other stakeholders relying on the same water source. The Lukosi Irrigation Scheme experiences conflicts related to the Kalope Dam, where upstream mining activities not only reduce water quality but also limit the amount of water available for irrigation. This situation can create tensions between agricultural users and mining companies, as well as among farmers who may have unequal access to water resources. In the Tshongokwe Irrigation Scheme, potential conflicts may arise from the over-extraction of water from the Tshongokwe Dam, particularly during dry periods when water availability is critical for both irrigation and community use. The proximity of alternative water sources, such as the Tshangane River, may also lead to disputes over water rights and usage.

In addressing water resource conflicts, it is essential to ensure equitable access and sustainable management of water resources. Effective conflict resolution strategies, inclusive stakeholder engagement, and integrated water resource management practices are vital to mitigate these conflicts and promote cooperation among all users.

10. Cultural Heritage and Land Use Conflicts

Cultural heritage and land use conflicts are significant issues across the three irrigation schemes, impacting community dynamics and resource management. In the Kulima Mbobumi (Msuna) scheme, agricultural practices can conflict with traditional land rights, threatening historical ties to the land. Similarly, in the Lukosi scheme, land use changes driven by agriculture and mining activities can encroach upon areas important for cultural rituals, creating tensions between modern development and community heritage. The Tshongokwe scheme also

faces disputes over land rights as agricultural expansion threatens communal areas historically significant to local culture. Addressing these conflicts requires sensitive engagement with communities, recognition of traditional land rights, and inclusive dialogue to ensure that agricultural development respects and preserves cultural heritage.

11. Energy use and climate linkages

Energy use and climate linkages are critical considerations across the three irrigation schemes, affecting agricultural practices and environmental sustainability. In the Kulima Mbobumi (Msuna) scheme, reliance on electric and diesel-powered pumps not only incurs costs but contributes to greenhouse gas emissions, while climate change impacts, such as fluctuating rainfall patterns, complicate water availability for irrigation. Similarly, in the Lukosi scheme, the energy needed for pumping from the Kalope Dam raises concerns about sustainability and carbon footprints, especially during dry spells. The Tshongokwe scheme's integration of solar-powered boreholes aims to reduce fossil fuel reliance, yet climate change challenges, including increased temperatures and lower rainfall, threaten water supplies. Addressing these energy and climate linkages is essential for optimising agricultural operations and ensuring long-term viability; transitioning to renewable energy and implementing efficient water management practices can enhance resilience and promote sustainable agricultural practices across all schemes.

12. Social Tensions and Equity Issues

Social tensions and equity issues present significant challenges within the three irrigation schemes, affecting community cohesion and resource access. In the Kulima Mbobumi (Msuna) scheme, disparities in water and land access can create divisions among farmers, particularly between established members and newcomers. The Lukosi scheme faces tensions from unequal water access during dry seasons, leading to conflicts between farmers and mining operations. In the Tshongokwe scheme, varying capacities among farmers to invest in improvements exacerbate existing inequalities, limiting benefits for those with fewer resources. Addressing these issues requires fostering inclusive dialogue, ensuring fair resource access, and promoting collaborative management practices to build stronger, more equitable relationships among all stakeholders involved.

13. Occupational health risks

Occupational health risks are a significant concern across the three irrigation schemes, affecting the well-being and productivity of farmers and workers. In the Kulima Mbobumi (Msuna) scheme, farmers face health issues from exposure to pesticides and the physical demands of irrigation work, which can lead to respiratory problems, skin irritations, and musculoskeletal disorders. Similarly, in the Lukosi scheme, risks include chemical exposure and safety hazards associated with machinery, contributing to fatigue and potential injuries. The Tshongokwe scheme also presents challenges, as manual labour and poor ergonomic practices can lead to injuries, despite the use of safer solar-powered systems. Addressing these risks requires implementing safety training programs, promoting protective equipment use, and ensuring access to health resources to enhance worker safety and productivity across all schemes.

14. Cumulative impacts

Cumulative impacts in the three irrigation schemes encompass the aggregated effects of various activities and environmental changes over time, particularly in relation to agricultural practices and resource management. In the Kulima Mbobumi (Msuna) scheme, cumulative effects stem from water extraction from the Zambezi River, agricultural expansion, and pollution, potentially leading to long-term degradation of water quality and biodiversity. The Lukosi scheme faces similar challenges, where increased agricultural water demand and pollution from upstream mining activities strain water resources, exacerbating scarcity and diminishing quality, especially during dry seasons. In the Tshongokwe scheme, cumulative impacts from climate change, land use changes, and water management practices contribute to soil degradation and reduced water availability, hindering agricultural sustainability. Addressing these cumulative impacts necessitates a holistic approach to resource management that incorporates sustainable practices, effective monitoring, and community engagement to mitigate adverse effects and enhance the long-term viability of the schemes.

5.2 Impact Assessment Methodology

The impact assessment for the RACP follows a structured, evidence-based methodology aligned with Zimbabwe's Environmental Management Act [Cap 20:27], IFAD's SECAP (2021) and the AfDB Integrated Safeguards System (2023). The approach used a combination of scoping, stakeholder input, and quantitative rating of significance. Each project phase; planning, construction, operation and decommissioning was screened to identify potential environmental and social aspects. For every aspect, the type, magnitude, likelihood, duration

and spatial extent of impacts were assessed, and a composite significance score was derived before and after mitigation. This allows a clear comparison of residual risks and ensures that mitigation and management measures are prioritised where they will have the greatest effect. The methodology integrates both qualitative (community perceptions) and quantitative indicators (land area, population affected, emissions, flows) to ensure a robust and transparent basis for the ESMP.

Impact Rating Criteria

The significance of each potential impact was evaluated using a multi-factor scoring system adapted from the Impact Assessment Management Matrix (Table 24). This approach provides a transparent, repeatable method to prioritise mitigation measures. The following criteria were applied:

Table 24: *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) – 5 (Severe)
Duration	How long the impact will 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** = (Probability + Magnitude + Duration + Extent + Sensitivity).

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 presents the environmental and social impacts identified for the RACP across each project phase: planning, construction, operation and decommissioning. Using the impact-rating approach described in 5.2, potential changes to the physical, biological and socio-economic environment have been systematically screened, rated and categorised. The analysis highlights how different activities within each phase, such as site preparation, civil works, water abstraction, scheme operation, and closure, may create distinct risks or benefits. This phase-by-phase breakdown provides the foundation for the mitigation measures, monitoring indicators and management responsibilities presented in the subsequent sections of the ESMP. Table 25 to Table 26 present the identified impacts for each project phase

Table 25: *RACP Project Impact*

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
PLANNING PHASE			
Early consultations and disclosure (**OS1, S6**)	Participation	Risk of mistrust or conflict where consultations lack inclusivity or transparency.	–
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.	–
Defining scheme footprint and boundaries (**OS2, S7**)	Land access	Restrictions to community pathways, informal gardens or grazing routes may create conflict.	–
Planning for agrochemical management (**OS4, S5**)	Pollution	Potential future contamination from pesticides or fertilisers if poor planning persists.	–

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Designing canals, pipelines and pump stations (**OS3, S2**)	Biodiversity	Disturbance to riparian vegetation, wetland pockets or sensitive species if ecological data is not integrated.	–
GRM planning and early dispute systems (**OS1, OS2, OS5, S6, S7**)	Grievances	Lack of early grievance management may escalate disputes.	–
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.	–
Institutional and IMC planning (**OS1, OS2, S1, S6**)	Governance	Weak institutional clarity may affect scheme sustainability.	–
Identifying borrow pits and stockpile sites (**OS1, OS3, S2**)	Soil and landscape	Potential soil degradation, erosion and disturbance of microhabitats.	–
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.	–
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.	–
Planning construction access routes (**OS4, S5**)	Community safety	Traffic safety concerns for schoolchildren, pedestrians and livestock.	–
Climate screening and resilience planning (**OS1, OS4, S9**)	Climate resilience	Infrastructure may underperform if hazards such as droughts, floods or heat stress are underestimated.	–
Cultural heritage reconnaissance (**OS1, S3**)	Cultural heritage	Risk of disturbing unrecorded cultural or	–

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
		spiritual features if chance-find procedures are absent.	
M&E systems development (**OS1, S1**)	Monitoring	Poor tracking of environmental and social performance where indicators are not established.	–
CONSTRUCTION PHASE			
Workers' camps and contractor mobilisation (**OS5, S4, S3**)	Labour and SEAH	SEAH risks, labour rights violations or unsafe living conditions.	–
Construction traffic and machinery operations (**OS4, S5**)	Community safety	Increased risk of accidents involving community members and livestock.	–
Earthworks, excavation and canal lining (**OS1, OS3, OS4, S2, S5**)	Soil and land	Soil erosion, structural instability and disturbed surfaces during excavation.	–
Vegetation clearance for access (**OS3, S2**)	Biodiversity	Loss of vegetation, wildlife disturbance or reduced habitat cover.	–
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.	–
Foundation works near water bodies (**OS3, S5**)	Water quality	Elevated sediment loads affecting aquatic ecosystems.	–
Construction near cultural areas (**OS1, S3**)	Cultural heritage	Disturbance to unrecorded archaeological or cultural artefacts.	–
Installation of pipelines and pumping units (**OS4, S5**)	Occupational safety	Potential for trench collapse, falling objects or machinery accidents.	–
Temporary water abstraction (**OS1, OS3, S2**)	Hydrology	Temporary changes to downstream flow patterns.	–

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Waste generation during works (**OS4, S5**)	Waste	Accumulation of rubble, metal scrap, plastics and concrete waste.	–
Presence of non-local labour (**OS5, S3, S4, S6**)	Social stability	Community tension risks, petty crime or pressure on local services.	–
Temporary disruption of access routes (**OS4, S5**)	Mobility	Reduced access for farmers, schoolchildren and health emergencies.	–
OPERATION PHASE			
Long-term irrigation and drainage (**OS3, S2**)	Soil health	Waterlogging, salinisation and nutrient imbalance if drainage is inadequate.	–
Continuous water abstraction (**OS1, OS3, S2, S9**)	Water resources	Reduced river flow and pressure on aquatic ecosystems during the dry season.	–
Functioning of improved irrigation infrastructure (**OS1, S2**)	Agricultural efficiency	Greater reliability in water delivery and improved crop performance.	+
Use of fertilisers and pesticides (**OS4, S5, S2**)	Pollution	Contamination risk for surface and groundwater from agrochemicals.	–
Operation staff presence (**OS5, S4**)	Labour	OHS incidents may occur where safety culture weakens.	–
Increased agricultural production (**OS1, S1**)	Livelihoods	Improved household food security, incomes and market participation.	+
IMC-led governance and operations (**OS1, OS2, S6, S7**)	Governance	Disputes may arise over water scheduling, fees or plot reallocation.	–
Exposure to stagnant water (**OS1, S5**)	Community health	Increased malaria, bilharzia or water-borne disease risks.	–
Climate-related disruptions (**OS1, OS4, S9**)	Climate resilience	Disruption to irrigation cycles from droughts, heatwaves or flooding.	–

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.	+
DECOMMISSIONING PHASE			
Loss of irrigation benefit (**OS2, S7**)	Livelihoods	Reduced production and income if closure is unmanaged.	–
Community tensions over asset redistribution (**OS1, S3, S6**)	Social stability	Risk of disputes if closure and handover processes lack transparency.	–
Disposal of obsolete infrastructure (**OS4, S5**)	Waste and pollution	Potential contamination from oils, metals or hazardous materials.	–
Removal of pumps, pipes and structures (**OS1, OS4, S5**)	OHS	Injury risks during dismantling and heavy lifting.	–
Restoration of land surfaces (**OS1, OS3, S2**)	Landscape	Possible soil disturbance but opportunities for natural recovery if well managed.	+/–
Formation of excavations or pits (**OS3, S2**)	Safety	Drowning hazards, mosquito breeding sites or injury risks.	–
Repurposing of land post-closure (**OS1, S1**)	Reuse potential	Positive opportunities for new community or agricultural activities.	+

Table 26: Cumulative Impacts

Project Activity (with OS & S triggered)	**Aspect**	**Impact Description**	**Direction (+/–)**
Expansion of irrigated land and intensified cropping across districts (OS1, S1)	Livelihoods	Sustained improvement in household food security and incomes from multiple functioning schemes.	+

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
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.	–
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.	–
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.	–
Aggregated vegetation clearance from scheme rehabilitations (OS3, S2)	Biodiversity	Fragmentation of natural vegetation, reduced habitat connectivity and increased pressure on wildlife movement corridors.	–
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.	–
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.	–
Multiple IMCs operating with different governance capacities (OS1, OS2, S6, S7)	Governance	Uneven scheme performance and increased conflict where governance capacity varies across schemes.	–
Combined benefits of market linkage	Rural economy	Stronger local economies driven by increased volume of produce	+

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/–)
improvements from several irrigation schemes (OS1, S1)		reaching district and provincial markets.	
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.	–
Aggregated canal water bodies across districts (OS1, S5)	Community health	Higher cumulative exposure to malaria vectors and waterborne diseases as canals and drains increase.	–
Cumulative decline in natural wetlands from uncoordinated abstraction (OS3, S2)	Ecosystem services	Progressive wetland shrinkage reducing water purification, flood buffering and grazing resources.	–
District-wide improvements in infrastructure reliability (OS1, S1)	Agricultural efficiency	More reliable production cycles, improved market consistency and expanded value chain participation.	+
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. All identified impacts and risks are systematically classified in the RACP Project Impact and Risk Rating Matrix, Table 27 and Table 28 which links each consequence to its corresponding mitigation measure and residual risk rating.

Table 27: RACP Project Impact Rating

Phase	Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Magnitude	Duration	Scale	Probability	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
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

Phase	Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Magnitude	Duration	Scale	Probability	SP	Residual Significance
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
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

Phase	Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Magnitude	Duration	Scale	Probability	SP	Residual Significance
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
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 28: Cumulative Impact Rating

Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Magnitude	Duration	Scale	Probability	Magnitude	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
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

Aspect	Magnitude	Duration	Scale	Probability	SP	Significance	Reversibility	Magnitude	Duration	Scale	Probability	Magnitude	Residual Significance
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
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 all 9 SECAP areas:

- Environment & Natural Resources
- Climate Change Adaptation
- Biodiversity & Ecosystems
- Water Resources
- Land & Soils
- Cultural Heritage
- Social Inclusion (Gender/Youth)
- Health, Safety & 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 the RACP. Each measure directly addresses its paired impact and specifies responsibility, verification, and the primary compliance reference, see Table 29 to Table 32.

Table 29: Planning Phase Mitigation Measures

Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Responsibility	Quantity	Total Cost (USD)
Exclusion of women, youth, vulnerable households.	Conduct inclusive consultations; ensure 50 percent women and 30 percent youth; publish plot allocation criteria.	% women/youth attending; displayed notices.	Registers; minutes; photos.	Consultation meetings	400 / site	Proponent / PIU; RDC; IMC; Traditional Leadership	32	12,800
					Public notices	30 / notice	32	960
Over-abstraction affecting downstream users.	Hydrological assessment; install staff gauges; set abstraction caps; coordinate with ZINWA.	Abstraction within limits; gauges installed.	Hydrology report; photos.	Hydrological assessment	500 / scheme	Proponent / PIU; RDC	32	16,000
					Staff gauges	120 / gauge	32	3,840
Restricting grazing routes/footpaths.	Map pathways; design alternative routes; Install crossings.	Number of rerouted paths; crossings installed.	GIS maps; inspection logs.	GPS mapping	500 / scheme	Contractor; RDC; Traditional Leadership	32	16,000
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/ ha	Contractor; RDC; EMA; IMC	150	7,500
Flooding or waterlogging risk.	Elevate pump houses by 0.5–1 m; design drainage channels 0.5 m x 0.5 m with slope 1:1.5.	Elevated structures; drainage designed.	Engineering drawings; approvals.	Drainage design	800 / scheme	Design Engineer; Contractor; Proponent / PIU	32	25,600
					Pump house elevation	1,000 / unit	32	32,000
Erosion and borrow pit degradation.	Vetiver planting (2 rows/contour, 15 cm	Vetiver rows installed; pit closed.	Photos; inspection reports.	Vetiver grass planting	2 / meter	Contractor; RDC; EMA	2,000 m	4,000

Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Responsibility	Quantity	Total Cost (USD)
	spacing); compacted rehabilitation.							
				Pit rehabilitation	300–600 / pit	Contractor; RDC; EMA	1	300–600
Unsafe or poorly planned labour systems.	Prepare LMP; PPE per worker; induction and contracts.	PPE coverage; LMP approved.	PPE registers; LMP file.	PPE kits	50 / worker	Contractor; Proponent / PIU	50 workers	2,500
Increased SEAH risk.	SEAH Action Plan; SEAH training; solar lighting; separate toilets.	Training frequency; lighting installed.	SEAH logs; inspection notes.	SEAH training	500 / session	Proponent / PIU; Contractor; RDC; NGOs	32	16,0500
					SEAH posters	10 / poster	32	320
Traffic accidents.	Enforce 15 km/hr limit; install 3 metal signs; route traffic away from schools.	Speed limits posted; signs installed.	Site inspection.	Speed limit signs	100 / sign	Contractor; RDC	32	3,2000
Poor stakeholder engagement.	Implement SEP; hold quarterly meetings; provide vernicular translations.	Meetings held; translations available.	SEP; minutes.	Quarterly meetings	200 / meeting	Proponent / PIU; RDC; IMC	32	6,400
					Translation	150 / document	3	450
Lack of early grievance handling.	Establish GRM; train committee; install GRM box; publicise hotline.	GRM functional; number of cases resolved.	GRM logs; photos.	GRM training	200 / session	Proponent / PIU; RDC; IMC	32	6,400
					GRM box	80 / unit	32	2,560
Unmanaged drought/flood risks.	Climate screening tool; culverts installed for bypass drainage.	Climate measures integrated.	Screening report; site photos.	Climate screening	1,000 / scheme	Proponent / PIU; Engineer	32	32,000
					Culverts	500 / unit	32	16,000

Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Responsibility	Quantity	Total Cost (USD)
Future pesticide contamination.	Design chemical store (impermeable floor, raised pallets, ventilation).	Store built; IPM included.	Store inspection.	Chemical store	2,000 / store	Contractor; Proponent / PIU; EMA	32	64,000
Damage to unrecorded heritage.	Conduct screening; include chance-find procedures in contracts.	Screening report submitted.	Cultural survey; contractor files.	Heritage screening	-	Proponent / PIU; Contractor; NMMZ		
Weak IMC capacity.	Train IMC; develop Governance Manual; finance skills training.	Number trained; manual delivered.	IMC registers; manual.	IMC training	200 / session	Proponent / PIU; RDC	32	6,400
Weak E&S monitoring.	Develop M&E plan; install water meters; define quarterly reporting templates.	Reports produced; meters functional.	M&E plan; meter logs.	Water meter		Proponent / PIU; ZINWA; RDC		

Table 30: Construction Phase Mitigation Measures

Aspect (OS & S Triggers)	Impact Description	Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Soil & land (OS1, OS3, S2)	Soil disturbance, erosion and instability.	Install silt traps at discharge points; create diversion trenches (0.4–0.5 m deep) around excavation zones; stabilise slopes with vetiver grass (2 rows/contour, 15 cm spacing); restrict stockpiles to <1.5 m height.	Number of silt traps; meters of vetiver planted; slope stability.	Site inspection reports; photographic evidence.	Silt traps	40 / trap	4 traps/site × 32	5,120
					Vetiver grass (erosion control)	2 / meter	250 m/site × 32	16,000
					Diversion trench installation	150 / site	32	4,800
Community safety (OS4, S5)	Accidents involving pedestrians, livestock, vehicles.	Enforce 15 km/hr limit; install metal speed-limit signs at entry/exit (50 USD each); deploy trained traffic marshals (25 USD/day); provide reflective vests (8 USD each).	Speed logs; number of marshals; signage installed.	Traffic management logs; inspection photos.	Speed limit signs	50 / sign	4 signs/site × 32	6,400
					Traffic marshals	25 / day	1 marshal × 60 days × 32	48,000
					Reflective vests	8 / vest	2 vests/site × 32	512
Labour & SEAH (OS5, S3, S4)	SEAH exposure, unsafe labour conditions.	SEAH training for all workers (500/session); daily toolbox talks; gender-segregated mobile toilets (80 USD/day); provide solar lamps	Number trained; toilets functional; lamps installed.	SEAH training logs; inspection checklists.	SEAH training	500 / session	1 session/site × 32	16,000

Aspect (OS & S Triggers)	Impact Description	Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
		(25 USD each) around worker areas.						
					Mobile toilets	80 / day	60 days × 32	153,600
					Solar lamps	25 / lamp	10 lamps/site × 32	8,000
Pollution (OS4, S5)	Fuel/oil spills and hazardous contamination.	Provide spill kits (150 USD each) with pads and 20L container; construct concrete refuelling slab (300 USD); use sealed 200L drums for waste oil (45 USD each).	Spill logs; bunds in place; spill kits available.	Spill register; inspection reports.	Spill kits	150 / kit	2 kits/site × 32	9,600
					Concrete refuelling slab	300 / slab	1/site × 32	9,600
					Waste oil drums	45 / drum	2 drums/site × 32	2,880
Air quality (OS4, S5)	Dust emissions and poor air quality.	Water internal roads twice daily with bowser (50 USD/day); cover stockpiles with tarpaulins (20 USD each); restrict idling >2 minutes.	Dust suppression frequency; tarpaulin coverage.	Dust monitoring logs.	Water bowser hire	50 / day	2 bowsers × 60 days × 32	57,600
					Tarpaulins	20 / tarp	6 tarps/site × 32	3,840
Biodiversity (OS3, S2)	Loss of vegetation, habitat disturbance.	Peg clearing boundaries; prohibit night works; plant 200 indigenous trees per site (1 USD each) in rehabilitated zones; ban worker firewood collection.	Trees planted; clearance compliance.	Boundary maps; planting logs.	Indigenous seedlings for offsetting	1 / seedling	200 seedlings/site × 32	6,400

Aspect (OS & S Triggers)	Impact Description	Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Water quality (OS3, OS4, S5)	Sedimentation and water contamination.	Install sediment traps (40 USD each); maintain drainage; prohibit washing machinery in waterways; conduct turbidity testing twice per month (25 USD/test).	Turbidity values; number of functional traps.	Water test logs; inspection reports.	Water quality tests	25 / test	8 tests/site × 32	6,400
					Sediment traps	40 / trap	3 traps/site × 32	3,840
Occupational safety (OS5, S4)	Worker injuries and unsafe worksites.	Provide PPE kits (hard hats, boots, gloves, goggles – 35 USD/worker/month); install barricades (50 USD/set); maintain first aid kits (80 USD each).	PPE usage; number of toolbox talks; first aid kits stocked.	OHS reports; PPE registers.	PPE kits	35 / worker/month	15 workers × 3 months × 32	50,400
					First aid kits	80 / kit	1 kit/site × 32	2,560
					Barricade sets	50 / set	3 sets/site × 32	4,800
Cultural heritage (OS1, S3)	Disturbance of cultural artefacts.	Worker heritage awareness training (200 USD/session); enforce Chance-Find Procedure; stop-work protocol.	Training sessions held; number of chance-find reports.	Heritage logs; GRM records.	Heritage training	200 / session	1 session/site × 32	6,400
Hydrology (OS1, OS4, S9)	Disrupted natural drainage patterns.	Maintain diversion channels; install temporary culverts (200 USD each) at crossing points; ensure no blocking of natural drains.	Culverts installed; drainage flow maintained.	Site inspection records.	Diversion trench work	150 / site	32	4,800
					Temporary culverts	200 / culvert	2 culverts/site × 32	12,800

Aspect (OS & S Triggers)	Impact Description	Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Social stability (OS5, S3, S4, S6)	Tensions from worker influx.	≥70 percent local hiring; weekly dialogue with local leaders; enforce behaviour code for workers.	% local workers; number of incidents logged.	HR records; community meeting minutes.	Local hiring campaign	300 / site	32	9,600
Waste (OS4, S5)	Accumulation of solid waste.	Provide colour-coded waste bins (15 USD each); weekly collection by licensed haulier (80 USD/week); segregate metal scrap.	Waste removed weekly; bins in place.	Waste logs; receipts.	Waste bins	15 / bin	6 bins/site × 32	2,880
					Waste haulage	80 / week	8 weeks × 32	20,480
Mobility (OS4, S5)	Blocked paths and restricted movement.	Provide temporary bypasses; issue 48-hour notices; install temporary pedestrian bridges (200 USD/unit).	Bypasses functional; community notified.	Notices; site inspection records.	Pedestrian bridges	200 / unit	1 bridge/site × 32	6,400

Table 31: Operation Phase Mitigation Measures

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures (Technical & 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 & drying of wetlands.	• Install water meters at abstraction points (**150 USD each**) • Enforce rotational irrigation schedules (posted weekly) • Maintain staff gauges at weirs • IMC–ZINWA joint monitoring every month	Meter readings; water schedules posted; gauge levels stable	IMC logs; meter logs; ZINWA reports	Water meters	150 / meter	1 meter/site × 32	4,800
					Staff gauge maintenance	30 / check	12 checks/site/year × 32	11,520
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 puncture before disposal	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
					Chemical store upgrades	250 / upgrade	32	8,000

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures (Technical & Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
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 liming where pH < 5.5 • Install field moisture monitoring tools (tensiometers – 45 USD each)	Soil test results; drainage maintained; crop rotation adopted	Soil lab reports; IMC field logs	Soil testing	45 / test	3 tests/site × 32	4,320
					Tensiometers	45 / device	4/site × 32	5,760
Livelihoods (OS1, S1)	Increased production and income variability due to market shocks and input shortages.	• Establish contract farming linkages • Train farmers in agronomy and business skills (500 USD/session) • Develop crop calendars with climate-matched varieties	Farmer income trends; training sessions delivered	Training registers; VBU reports	Agronomy & livelihood training	500 / session	2 sessions/site × 32	32,000
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 32: Decommissioning Phase Mitigation Measures

Aspect (OS & S Triggers)	**Impact Description**	**Detailed Mitigation Measures (Technical & 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) • Conduct daily toolbox talks and safe-lifting briefings	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
					Barricade sets	50 / set	3 sets/site × 32	4,800
					Toolbox materials	20 / session	10 sessions/site × 32	6,400
Waste & 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 safely stored	Waste manifests; disposal receipts	Waste oil drums	45 / drum	2 drums/site × 32	**2,880**

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures (Technical & 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)						
					Hazardous waste collection	150 / site	32	4,800
					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 • Remove temporary foundations and rubble	Trenches backfilled; surfaces restored; vegetation established	Site inspection; photo log	Backfilling works	300 / site	32	9,600
					Vetiver planting	2 / meter	200 m/site × 32	12,800
					Shrub seedlings	1 / seedling	150/site × 32	4,800

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures (Technical & Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
Livelihoods (OS2, S7)	Sudden loss of irrigation-based jobs, crop income and market access.	• Conduct decommissioning stakeholder meetings (400 USD/site) • Facilitate linkages to alternative livelihoods (beekeeping, poultry, gardens) • Provide farmer transition advisory support	Number of households supported; transitional plans documented	Meeting minutes; beneficiary lists	Consultation meetings	400 / meeting	1/site × 32	12,800
					Transition advisory sessions	300 / session	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 / sign	3/site × 32	4,800
					Debris removal	150 / site	32	4,800
Social stability (OS1, S6)	Conflicts over redistributed assets or unclear handover.	• Transparent asset-handover meetings • Update IMC and RDC on asset ownership	Number of disputes recorded; lists posted	GRM logs; handover reports	Asset handover meetings	300 / meeting	1/site × 32	9,600

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures (Technical & Actionable)	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity (Across 32 Sites)	Total Cost (USD)
		• 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, storage, livestock).	• Map infrastructure to identify salvageable components • Hand over functional assets for community reuse • Provide simple reuse design concepts for each site	Reuse plans developed; reused structures documented	Reuse plans; photos	Reuse mapping	250 / site	32	8,000
					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 33: 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 District Development Coordinators' Offices)	Integrate ESMP measures into local development plans and approvals; provide land-use consents and by-law 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

Actor	Core Responsibilities under the ESMP
	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 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 actions on the ground. 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 for preventing or mitigating adverse impacts, enhancing positive outcomes, and ensuring 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 14.

Irrigated agriculture and ongoing crop production exacerbate pest pressures in the project areas, especially those caused by Spodoptera frugiperda, Tuta absoluta, aphids, whiteflies, and fruit flies. These pests may result in chemical misuse, exposure risks, irrigation water contamination, loss of beneficial organisms, and possible non-compliance with safeguard regulations in the absence of an organized Integrated Pest Management (IPM) approach. As a result, IPM is adopted by the ESMP as the required framework for all project-supported agricultural activities.

The project advocates for ecological and preventive management as the main line of defence. To prevent pest accumulation, farmers and VBUs must implement crop rotation, intercropping, residue elimination, synchronized planting, and better field hygiene. Before any chemical intervention, biological and mechanical techniques such the use of Bacillus thuringiensis, Beauveria bassiana, pheromone traps, and manual removal are given priority. Within irrigation intensification zones, these techniques conserve natural enemies, lessen the need for pesticides, and preserve environmental equilibrium.

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.

The duties of the institution are well-defined. Every day, farmers engage in IPM practices. Records, storage facilities, and scheme rule enforcement are maintained by VBU and the Irrigation Management Committees. Officers from AGRITEX train farmers, conduct inspections, and offer technical advice. DRSS offers updates on authorized pesticides as well as diagnostic assistance. EMA makes sure that environmental regulations are followed, especially when it comes to trash and hazardous materials. Oversight is provided by the district and provincial project teams, and resource allocation and compliance are guaranteed by the Project Management Unit.

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 34 summarises the IPMP's scope, legal framework and key measures and the detailed IPMP is presented in Appendix 14.

Table 34: The Integrated Pest Management Plan

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
Integrated Pest Management (IPM) Framework **Objective:** Prevent environmental contamination and protect human and animal health while maintaining crop	**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.	**Policy and Procurement:** • Restrict procurement and use to approved pesticides; • Strictly prohibit WHO Class Ia and Ib pesticides;

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
productivity through ecologically sound pest management practices.	**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 (Ward 3, Zvimba District, Mashonaland West Province), developed with AGRITEX support, will serve as a benchmark.	• 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 last resort with selective and least hazardous approved pesticides. **Safe Storage and Infrastructure:** • Establish central, lockable, ventilated, bunded 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:**

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
		• 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.

6.2.2 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. The following Table 35 presents the LMP's objectives, scope, legal framework and key actions and delivers the detailed LMP

Table 35: 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 NEC minimum wage for 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.

6.2.3 Stakeholder Engagement Plan (SEP)

The Stakeholder Engagement Plan ensures transparent, inclusive and continuous dialogue with communities and institutions across all 18 project districts. It is critical for building trust, managing expectations and capturing the voices of women, youth and vulnerable groups. The Table 36 below summarises the SEP's scope, legal framework and key measures. A detailed SEP is given in Appendix 12.

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 Matebeleland North. 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 back outcomes.

Key Stakeholder Groups

Stakeholders relevant to the project include:

- **Local communities and farmers** in the three irrigation schemes (Lukosi, Msuna and Tshongokwe).
- **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. 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 Appendix 12

Table 36*:* summarises the SEP's scope, legal framework and key measures and delivers the detailed SEP is in Appendix 12.

Table 36: Stakeholder Engagement Plan's Scope, Legal Framework and Key Measures

Plan Title & Objective	Scope & Legal Framework	Key Actions & 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 18 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. The following Table 37 sets out the plan's scope, legal framework and principal actions.

Table 37: Climate Risk Management Plan

Plan Title & Objective	Scope & Legal Framework	Key Actions & 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.

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 38 below outlines the plan's scope, legal framework and key measures.

Table 38: Waste and Pollution Management Plan

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
Waste and Pollution Management Plan Objective: Prevent and mitigate soil, water and air pollution from all project	**Scope:** All project sites including construction camps, markets, post-harvest centres and irrigation schemes.	• Provide segregated bin systems (recyclables, organic, general, hazardous) at all markets, camps and post-harvest centres.

activities, ensuring responsible waste handling from cradle to grave.	**Legal Framework:** EMA SI 6/2007 (Waste Regulations); Public Health Act [Cap 15:09]; Fertilisers, Farm Feeds and Remedies Act.	• 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 prior to 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 protect 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. The Table 39 below summarises the plan's scope, legal framework and key actions.

Table 39: Occupational Health and Safety Plan

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
Occupational Health and Safety (OHS) Plan **Objective:** Protect all workers and nearby communities from accidents, injuries and diseases arising from project activities.	**Scope:** All project phases and all actors, including contractors, IMCs and project staff. **Legal Framework:** NSSA OSH Policy; Factories and Works Act; Public Health Act; IFAD ESS6.	• Develop and obtain PIU approval for site-specific OHS plans before mobilisation. • Appoint safety representatives to perform daily inspections and monthly safety audits. • Ensure 100 % provision and monitoring of mandatory PPE use. • Maintain first-aid kits with trained personnel on all sites and conduct

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
		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.

6.3 Monitoring and Reporting Framework

For the Resilience Agriculture Cluster Project (RACP) in Matebeleland North to meet the environmental, social, gender, and climatic resilience requirements of the AfDB Operational Safeguards (OS) and IFAD SECAP Standards (S), effective monitoring and reporting are crucial. Across all 32 irrigation schemes, the monitoring methodology tracks changes in water resources, soil health, biodiversity, labour and SEAH risks, community health, governance, livelihoods, and climate resilience using precisely specified indicators. The PIU and provincial teams conduct quarterly supervisory assessments in addition to monthly frontline monitoring by AGRITEX, EMA, Forestry Commission, RDC, and IMCs. This ensures consistent oversight, early risk detection, and efficient implementation of mitigation measures throughout all project phases.

At the scheme, district, and provincial levels, monitoring findings are recorded via defined reporting mechanisms. Quarterly summaries offer a comprehensive picture of performance and new problems that need to be fixed. In order to confirm adherence to OS and S requirements, improve transparency, and facilitate ongoing ESMP implementation improvement, the framework also includes independent audits and recurring assessments. The monitoring Table 40 to Table 43 list the precise criteria, including indicators, monitoring duties, and projected budget requirements, that must be evaluated throughout the planning, construction, operation, decommissioning, and cumulative impact phases.

Table 40: Planning Phase Monitoring and Reporting Framework

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Water resources – potential over-abstraction from design decisions (OS1, OS3, S2, S9)	Use of hydrological assessments and environmental flow considerations in designs.	• Hydrology report available; • abstraction limits defined in design; • ZINWA clearance obtained.	• Once per scheme in planning; • Reviewed at ESMP update.	ZINWA, EMA, PIU Environmental Specialist.	Minor desk-review cost, included in institutional support; no separate field budget line.
Social inclusion – risk of excluding women, youth and vulnerable groups (OS1, OS2, S1, S6)	Representation of women, youth and vulnerable groups in planning and allocation processes.	• % of women and youth in meetings; • Documented attendance; • Allocation records show representation.	• Quarterly during planning and design.	IMC, AGRITEX, RDC Social Services, PIU Social Specialist.	Covered under overall annual monitoring budget (≈ 48,000 USD).
Climate and disaster risk – underestimation of flood/drought effects (OS1, OS4, S5, S9)	Integration of climate risk into design (elevations, drainage, culverts).	• Design drawings show climate-resilient features; • Flood lines considered.	• At design review stage; updated if design changes.	PIU Climate / Irrigation Engineer; EMA; RDC.	Included in PIU quarterly supervision budget.
Soil and landscape – erosion from poorly levelled soil (OS1, OS3, S2)	Location and rehabilitation provisions for cleared sites.	• Rehabilitation clauses included.	• Once at ESMP/design approval; annual follow-up.	EMA, RDC, PIU Environmental Officer.	Part of institutional support; not a separate field cost.
Labour conditions – inadequate labour planning (OS5, S4)	Presence of Labour Management Plan (LMP) addressing worker conditions.	• Approved LMP attached to contracts.	• Once before contractor mobilisation.	PIU Safeguards, Ministry of Labour (where applicable).	Desk-based; minimal additional cost.
Gender and protection – SEAH risk not	Existence of SEAH Action Plan and	• SEAH Plan in place; • CoC included in tender/contracts.	• Once per contract, before award	PIU GBV/SEAH Focal Person; Procurement Unit.	Included in PIU operational budget.

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
addressed (OS1, OS5, S3)	Codes of Conduct in planning package.		and mobilisation.		
Participation – quality of planning consultations (OS1, S6)	Documentation and inclusivity of planning-stage consultations.	• Number of meetings; diversity of participants; • Issues log.	• Quarterly during design.	IMC, RDC, PIU Social Safeguards.	Covered under overall monitoring budget.
Grievances – absence of functional GRM at planning stage (OS1, OS2, OS5, S6, S7)	Functionality of ward and scheme GRM during planning.	• GRM committee formed; • GRM logbook opened.	• Quarterly.	IMC, RDC, PIU.	Negligible extra cost; within monitoring lump sum.
Climate resilience – failure to incorporate adaptation measures (OS1, OS4, S9)	Inclusion of climate adaptation options (bypass channels, raised structures).	• Evidence of adaptation in designs.	• Once at design approval.	PIU Climate Specialist and Engineer.	Included in PIU costs.
Community safety – poorly planned access routes (OS4, S5)	Inclusion of community safety measures in road/access design.	• Speed limits, • Signage positions, • Detour routes in design drawings.	• Once at design stage; • Pre-construction check.	RDC Engineer, PIU Engineer.	Included in engineering review work.
Pollution – lack of early planning for safe chemical management (OS4, S5)	Presence of IPM and chemical store design provisions in planning.	• IPM elements in ESMP; chemical store space allocated.	• Once at ESMP finalisation.	EMA, PIU Environmental Officer.	Included in ESMP preparation and review.
Cultural heritage – risk of damaging unknown sites (OS1, S3)	Inclusion of chance-find procedures in tender documents.	• Chance-find clauses in all contracts.	• Once before procurement finalisation.	PIU Environmental Specialist; NMMZ.	Desk-review cost; negligible extra budget.
Governance – weak IMC role definition (OS1, OS2, S6)	Clarity of roles and scheme governance arrangements.	• Governance framework document approved.	• Once per scheme in planning.	PIU, RDC, IMC.	Included in institutional support

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
					(IMC strengthening).
Monitoring – absence of M&E plan (OS1, S1)	Existence of E&S M&E plan with indicators, tools and templates.	• Approved M&E framework.	• Once, then updated midterm.	PIU M&E Officer; Safeguards Team.	Included in PIU core budget.
Land access – risk of restricting grazing routes, footpaths (OS2, S7)	Whether existing community routes are mapped and maintained in layouts.	• Maps show maintained or rerouted access; • Number of land access complaints.	• Once per scheme during detailed design; • Then annual check.	RDC, IMC, PIU Social Safeguards.	Included in frontline monitoring lump sum.

Table 41: 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) + PIU quarterly.
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 workforce (OS5, S3, S4)	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
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/week.	Monthly (more frequent during 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 vs baseline.	Quarterly during construction.	EMA, PIU Environmental Officer.	Lab tests funded under EMA/PIU budget; site checks in monitoring lump sum.
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 during works (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 – management of construction waste (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 42: Operation Phase Monitoring and Reporting Framework

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
Water resources – long-term abstraction pressure (OS1, OS3, S2, S9)	Abstraction volumes vs permits; downstream flows and wetland condition.	• Meter readings; flow observations; • Wetland status.	• Monthly (frontline) and • Quarterly (PIU/ZINWA) .	IMC Water Committee, ZINWA, EMA, PIU.	Part of frontline monthly and quarterly supervision budget.
Pollution – agrochemicals and oils (OS4, S5)	Chemical storage safety, IPM practices, absence of washing in canals.	• Number of unsafe practices detected; • Condition of store.	Monthly.	EMA, AGRITEX, IMC.	Included under EMA/AGRITEX support and overall monitoring lump sum.
Soil health – salinity, nutrient status (OS3, S2)	Soil test results (EC, pH, salinity); drainage effectiveness.	• Soil lab values within acceptable limits.	Twice yearly.	AGRITEX, PIU Agronomist.	Soil tests costed separately in ESMP budget; monitoring supervision in lump sum.
Livelihoods – improved but variable incomes (OS1, S1)	Crop yields, income trends, market access.	• Yield per ha; • Income proxy indicators;	Quarterly.	AGRITEX, IMC, PIU Livelihood Officer.	Included in quarterly supervision.

Agricultural efficiency – scheme performance (OS1, S1)	Pump functionality, canal conditions, water distribution efficiency.	• Pump runtime; downtime; • Number of complaints about water distribution.	Monthly technical checks; quarterly review.	IMC, AGRITEX, PIU Engineer.	Covered under frontline monitoring.
Governance – IMC conflicts and transparency (OS1, OS2, S6)	IMC meeting regularity, financial records, rule enforcement.	• Number of IMC meetings; • Audited accounts; • Rule breaches reported.	Quarterly.	IMC, RDC, PIU Governance Specialist.	Included in institutional and monitoring support.
Labour – scheme-level OHS for routine operation (OS5, S4)	Condition of pump houses, PPE for operators, recorded incidents.	• Operator PPE usage; • Recorded injuries.	Monthly.	IMC OHS focal, PIU OHS Officer.	Part of routine monitoring allocation.
Community health – malaria, waterborne disease risks (OS1, S5)	Stagnant water, presence of mosquito breeding sites, health reports.	• Number of breeding sites cleared; • Health incident trends.	Monthly with health officer quarterly inputs.	IMC, MoHCC EHT, PIU Social Safeguards.	Included in frontline monitoring; some health data collection absorbed by MoHCC.
Social cohesion – water conflicts and exclusion (OS2, S7)	Frequency of disputes; unresolved grievances.	• Recorded water-use conflicts; • GRM resolution rate.	Monthly.	IMC GRM Committee, RDC, PIU.	Within monitoring lump sum.
Climate resilience – infrastructure performance under shocks (OS1, OS4, S9)	Damage after extreme events, function of overflow channels and embankments.	• Number of climate-related damages; • Response time.	After major events; Otherwise quarterly inspection.	IMC, PIU Climate/Irrigation Engineer, EMA.	Covered within quarterly supervision and institutional support.

Table 43: Decommissioning Phase Monitoring and Reporting Framework

Aspect & Impact	**Monitored Activity**	**Monitoring Indicator**	**Frequency**	**Responsibility**	**Estimated Monitoring Budget**
OHS – dismantling accident risks (OS5, S4)	Safe dismantling procedures, PPE, toolbox talks.	• Zero serious injuries; • Toolbox talks held.	Weekly during active decommissioning.	Contractor, IMC, PIU OHS.	Included in project closing-phase budget and PIU supervision.
Waste and pollution – hazardous and scrap waste (OS4, S5)	Correct disposal of oils, metals, debris.	• Waste manifests; • Absence of uncontrolled dumps.	Weekly until closure complete.	EMA, RDC, Contractor, PIU.	Funded through decommissioning works budget and oversight visits.
Landscape – restoration and rehabilitation (OS3, S2)	Regraded slopes, vegetation re-establishment.	• Vegetation cover percentage.	Monthly during decommissioning; final inspection at handover.	EMA, Forestry Commission, RDC, PIU.	Included in closure budget plus monitoring lump sum.
Livelihoods – transition away from irrigation-based income (OS2, S7)	Support for alternative livelihoods; clarity of transition plan.	• Number of households supported; • Livelihood options identified.	• At decommissioning planning; • Reviewed at completion.	AGRITEX, PIU Livelihoods/ Social Specialists, RDC.	Covered in closure and livelihood support budget.
Safety – hazards to community after decommissioning (OS4, S5)	Remaining pits, unstable structures, residual debris.	• Zero open pits; • Hazardous structures removed.	• At completion and • 6 months after.	RDC, EMA, IMC, PIU.	Included under final inspection and institutional support.
Social stability – conflicts over asset redistribution (OS1, S6)	Transparent handover, conflict records.	• Number of disputes recorded and resolved.	• At asset handover; • Follow-up quarterly for 1yr.	IMC, RDC, PIU Social Safeguards.	Within overall monitoring and handover processes budget.
Reuse potential – community reuse of	Existence and implementation of reuse plans.	• Reuse plan in place;	Once at handover; annual check if reuse is ongoing.	RDC, IMC, PIU.	Included in project closing supervision.

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
remaining assets (OS1, OS2, S6)		• Reuse options implemented.			

The annual monitoring budget Table 44 provides the financial resources required to support all environmental and social oversight activities across the irrigation schemes implemented under the RACP in Matebeleland Central Province. The allocation reflects the monitoring intensity associated with water management, soil conservation, biodiversity protection, labour conditions, SEAH prevention, governance, and climate resilience measures that must be applied consistently at scheme, district and provincial levels.

Table 44: 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	**12,000**
Water quality – turbidity, pH, EC, contamination risks (OS3, OS4, S5)	Quarterly	EMA, PIU Environmental Specialist	**6,000**
Soil health – salinity, soil fertility, erosion status (OS1, OS3, S2)	Twice yearly tests and monthly visual checks	AGRITEX, EMA, PIU Agronomist	**5,000**
Biodiversity – buffer zones, riparian vegetation and habitat protection (OS3, S2)	Quarterly	Forestry Commission, EMA, PIU Environmental Specialist	**5,000**
Pollution – agrochemicals, fuel, oils, chemical storage (OS4, S5)	Monthly	EMA, IMC, PIU Environmental Specialist	**6,000**
Air quality – dust and construction or traffic emissions (OS4, S5)	Monthly in dry seasons	EMA, RDC, Contractor, IMC	**3,334**
Labour and SEAH – worker conditions, SEAH risk and Code of Conduct compliance (OS5, S3, S4)	Monthly	Contractors, IMC, PIU SEAH and Social Safeguards	**6,667**

Aspect & Impact (OS, S)	Frequency	Responsible Office	Annual Monitoring Budget (USD)
Occupational health and safety – accidents, PPE use, pump house safety (OS5, S4)	Monthly	IMC OHS focal person, Contractors, PIU OHS Officer	**6,666**
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 one of Zimbabwe's most ambitious efforts to modernise and climate-proof smallholder irrigation. By rehabilitating and expanding more than thirty irrigation schemes across five provinces and four catchments, establishing climate-smart infrastructure and embedding inclusive governance systems, the project has the potential to transform subsistence-based agriculture into diversified, market-oriented and resilient production systems. The interventions outlined in this ESIA and ESMP, ranging from soil and water conservation to gender responsive training and youth employment pathways, are designed to unlock lasting productivity gains while simultaneously improving food security and livelihoods for more than 6.6 million people in the targeted districts.

This assessment has also demonstrated that achieving such benefits depends on strict adherence to national and international safeguards. Compliance with the Environmental Management Act [Chapter 20:27] and associated regulations, the African Development Bank's Integrated

Safeguards System and IFAD's Social, Environmental and Climate Assessment Procedures is not only a statutory obligation but a practical roadmap for responsible development. The ESMP translates these requirements into concrete mitigation measures, clear institutional responsibilities and measurable indicators so that regulators, financiers and communities can verify that commitments are being met.

Finally, the RACP embodies a forward-looking commitment to sustainability, inclusivity and resilience. Its design integrates climate risk screening, integrated pest management, water use efficiency and biodiversity conservation while strengthening social inclusion, occupational health and safety and conflict prevention. The monitoring and reporting framework ensures that performance is transparently tracked and lessons learned feed back into ongoing operations. If implemented as set out in this report, the RACP will not only deliver immediate gains in agricultural productivity and rural incomes but will also establish a replicable model of environmentally sound, socially equitable and climate resilient irrigation development for Zimbabwe and the region.

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.

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APPENDICES

Appendix 1: Minutes and Registers

a) Hwange District Council

Hwange Meeting with DDC 16/10/25
08:15 AM

Introduction
The DDC team was introduced and a brief background of RACP. That it builds up from SACP mainly to revitalise the irrigation schemes

Purpose
* Climate proofing
* Afforestation
* Solar powered irrigation
* Land and soil rehabilitation
* Market Survey

- An ESMP is then required to support the project. SIRDC was tasked to do the ESMP for the RACP project. Therefore a stakeholder consultation was required as part of the ESMP. Hence the need for a courtesy call on the DDC's office.

END 08:30

16/10/25

Meeting with Hwange RDC: 1233

- Mr Mapani - 072 442 575
Social Services

A summary of the project was given about RACP. The project builds up from SACP and aims to revitalise irrigation schemes. SIRDC comes in to ~~revitalise~~ do the ESMP for the RACP projects.

Purpose

* Value chain
* Water harvesting
* Optional sources of power
* Solar irrigation schemes
* Climate proofing

So RACP came up in for a courtesy call to the RDC CEO in Hwange. Questionnaires were distributed and to follow up with Mr Mapani on their responses

b) Lupane District Council

31/10/25

Meeting with Lupane RDC 1200pm

Introduction with RDC team members. RACP project was explained to the members present. RACP is a replicating of SACP but mainly focuses on climate resilience

Main purpose

- Climate proofing
- Strengthening market value chain.
- Water conservation and harvesting.
- Solar powered irrigation
- Road rehabilitation on feeder roads.
- Equal opportunities for both men & women

RACP will be supporting the SACP project. LRDC is to come up with an ESMP to kick start the project. The ESMP is required by the banks so that they can release money with knowledge of the environmental safeguards.

- The budget ~~the~~ still estimates

pwds LUPANE RDC

Tsolongue

* Changwegue was proposed as one of the schemes to be rentalised in Lupane.
* So many projects have come and gone but the main problem of siltation has not been addressed.
* RDC team stressed that dam siltation was the main cause of concern
* They also expect gender mainstreaming particularly looking at the development of the community.

youth and people with ~~disab~~ disabilities should also be included.

12:25pm.

c) Msuna Irrigation Scheme

Matabeleland North : Hwange

Msuna Irrigation Scheme ; Hwange 16/10/25
15:30 pm

Introduction
The IMC introduced themselves to the floor. The Agritex officer then introduced the RACP team. The project was introduced to the farmers. Meaning that it builds up from the SACP project with the main purpose of revitalising the irrigation schemes.

Purpose of RACP:
* Rehabilitation of irrigation schemes
* Climate smart agriculture
* Market surveys
* Solar powered irrigation schemes
* Road rehabilitation
*

* SIRDS was tasked to do an ESMP for the RACP project hence the need for a stakeholder consultation so that money can be sourced for the project. An ESMP is a requirement from the banks

* The farmers wanted to understand what RACP was really about and it was explained as projects working with the government to source funds to rehabilitate irrigation schemes
* They know about SACP now the coming in of RACP was now difficult for them to understand as the SACP project has not commenced yet but now RACP comes in the projects were taking long to commence this was the main worry of the farmers

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* Concerns & Expectations
- Pipes & sprinklers, pumps
- Fence is need around the fence as sometimes hippos come in and destroy crops - if possible electric
- More pipes are needed so that water is always available even when water is low
- Water resoivour is needed at the scheme
- Storage room which is much stronger to withstand the strong winds from the Zambezi river
- Toilets are needed in the fields as only one is available
- A shack is needed for meetings
- Motorised ploughs or tractors are needed
- Equipment to stop stockfeeds from the remains of the crops after harvest
- Signs are squanding money in the names of schemes but at the end the money does not benefit them. It happened before.
- Money should be channelled to the integrated schemes account

Benefits
- Farmers will now be able to bring even trucks to carry their goods to the market.
- If the scheme is now running, boreholes can be drilled so that farmers will not go and fetch water by themselves in the crocodile infested river.
- |

* Concerns continued
- Local labour should be paid for.
- People should get enough explanation when construction workers come in whether they are working for money or for free.

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* Social ills may become rampant by the coming in of construction workers
* The local people should be trained on technical roles eg plumbers, fence installers so as to avoid taking people from outside
* Need for a first aid kit / facilities in the scheme in case of emergencies
* The farmers are now staggering farming as the control box can not cater for all the whole farm.
* The construction consultancies coming in to work or do projects should be insured to the farmers and agree on the scope of TORs with the farmers.
* No markets for produce especially maize

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d) Tshongokwe Irrigation Scheme

Matebeleland North

Tshongokwe Irrigation Scheme: Lupane 17/10/25. 12:50pm

Intro

The farmers were introduced to the SIRDC team by the Agritex officer. A brief background of the RACP project was given that it builds up from the SACP project which was still ongoing. The SIRDC team was doing a stakeholder consultation so as to draft an ESMP as required by the banks.

Purpose of the Project

* To revitalise irrigation schemes by
* restoring land and water sources
* Installing solar powered irrigation schemes
* Introducing climate-smart agriculture
* Sourcing markets for farm produce
* promoting gender equity on the schemes.
* Afforestation

- Therefore RACP came in to source more funds to finance these projects hence the need to do an ESMP. Stakeholder consultations are a requirement to be done first before the draft of the ESMP commences.

Concerns / Expectations of Farmers

* There is a problem of water in the scheme may if boreholes can be drilled to supplement water from the dam.
* Water reservoirs are needed in the scheme
* Boundary fence need to be repaired - crops affected by domestic animals
* Water canals are now old, they need to be replaced
* Need new technology eg change from flood irrigation to centre pivots

ZA

* If the scheme is up and running, farmers expect to grow more crops
* Big problem is water, therefore the borehole needs to be equipped.
* The farmers prefers use of solar system as somehow electricity is not available, however, the solar panels should be strong enough to sustain the whole irrigation at once.
* The dam is silted and need to be scooped, if possible increase the dam wall.
* Gabions should be installed to trap sand from flowing into the dam.
* Some farmers are practising streambank cultivation near the dam, hence resulting in river siltation.
* People should be encouraged to refrain from practicing streambank cultivation.
* ~~Construction workers~~
* Market competition with other farmers
* ?

Benefits

- Employment creation
- Improvement of livelihoods
- Income generation
- Food security
- Cars / trucks to transport produce
- Health also improves
- Improved hygiene and living standards
- Youth empowerment
-

Concerns / Expectations continued

* Farmers expect the dam to be expanded and people affected will also benefit from the scheme
* More money can cause disputes in the community households
* Coming in of construction workers can cause social ills and unwanted pregnancies, on the other side families and marriages can be formulated

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* Behaviour awareness between contractors and the community.
* Women should also be employed in construction work.
*

End 13:52

Cordinates Tshongokuze
0561487
7935756

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e) Lukosi Irrigation Scheme

Matebeleland North

Lukosi Irrigation Scheme: Hwange 16/10/25 10:27am

The Irrigation management Committee (IMC) introduced themselves to the meeting. The Agritex officer then introduced the whole team to the farmers. A brief background of the Resilience Agriculture Cluster Project that it builds up from the Smallholder Agriculture Cluster Project. The main purpose was mainly to combat climate change issues. In that regard SIRDC was tasked to do an Environmental and Social Management Plan. (ESMP) for the project.

Purpose

- To help farmers practice climate smart agriculture
- Revitalisation of irrigation schemes
- Land rehabilitation around the irrigation schemes
- Afforestation of the surrounding forests around the irrigation schemes
- Market surveys so that farmers will have ready markets for their produce
- Rehabilitation of feeder roads

Concerns and Expectations

- Installation of boundary fences and gates
- Solar powered borehole installation
- Rehabilitation of canal system
- Project leaders should approach the farmers first before the project commencies.
- Fear of being arrested over water disputes like what happened before
- Siphons need to be repaired as they have leakages
- Block C of the irrigation scheme was not being utilised.

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- Farmers need markets for their farm produce
- The farmers needed greenhouses as region 5 of the country is very hot.
- Farmers feared displacements due to future expansions
- The planter needed to be repaired or alternatively buy a suitable one for the scheme.
- A storeroom was needed near the fields for ease of storage.
- Toilets were also needed in the scheme
- Tractor and tractor shed needed repairs
- The area did not have agri-dealers nearby thus farmers were asking for inputs near the scheme
- They also asked for a borehole to be drilled for portable drinking water.
- Feedback after consultations was required
- Agreements on the way forward should be made with farmers after success of projects
- Construction workers coming into the schemes may result in unwanted pregnancies and social ills in the co area.
- Local people should be employed, outsiders should only be employed when they fail to get qualified personnel from the community.
- Families may be dismantled as women or men may be lured by money from the construction workers.
- To consider scooping the dam to remove the excess silt.
- Farmers feared that their garden may be taken away from them after help offers and were assured that nothing of that sought would happen.

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- This was because many people were now coming in to ~~take~~ water from the dam.

Concerns in order of priority

1. Boundary fence
2. Boreholes
3. Canals
4. Siphons
5. Flush toilets
6. Warehouse for storage
7. Inputs
8. Dam scooping.

Benefits

- Employment creation
- Food Security
- Ready markets for farm produce
- Good and improved health
- Youth empowerment

Meeting ended at 12pm.

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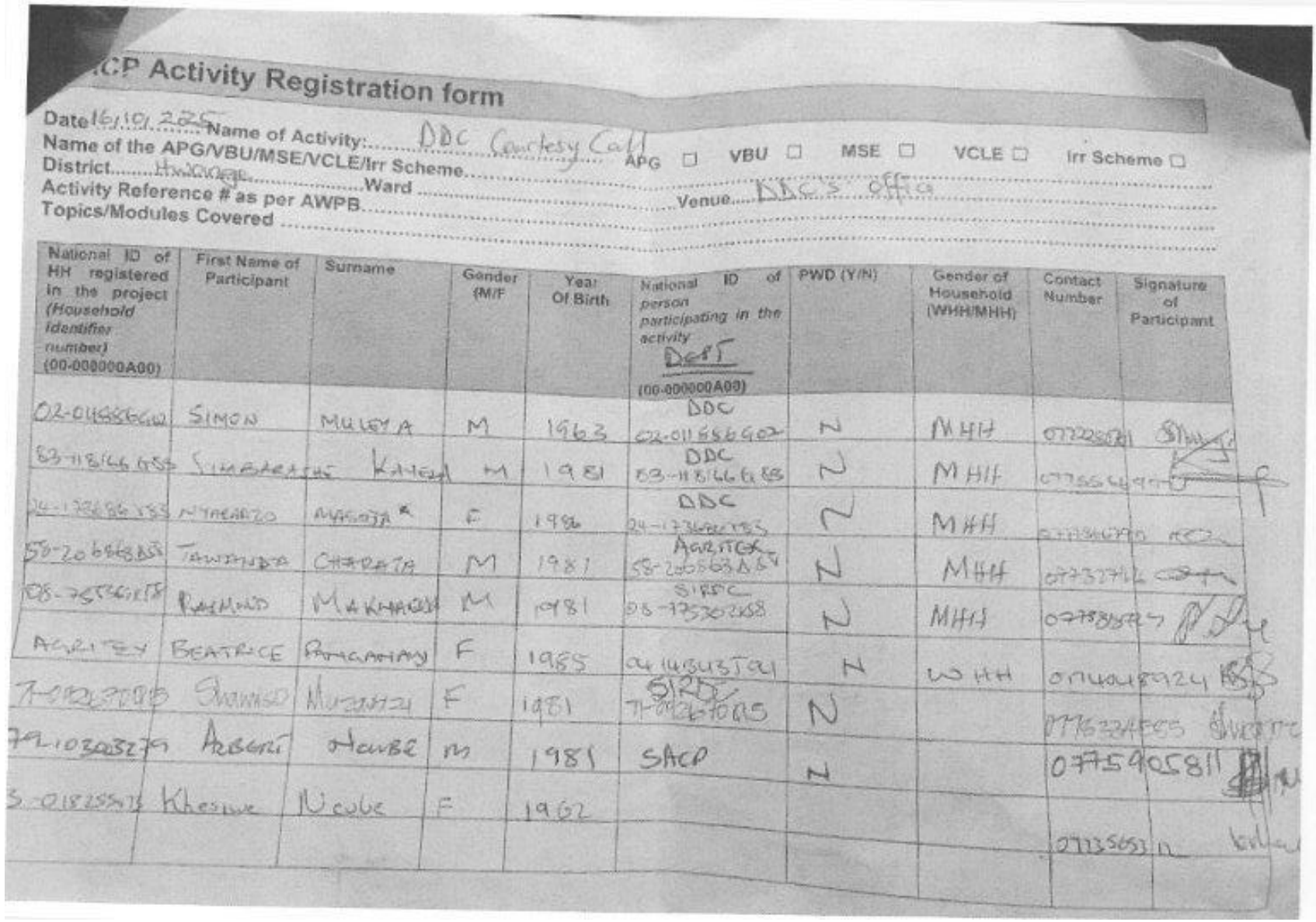
a) Hwange DDC meeting



.CP Activity Registration form

Date 16/10/2025 Name of Activity: DDC Courtesy Call

Name of the APG/VBU/MSE/VCLE/Irr Scheme..... APG ☐ VBU ☐ MSE ☐ VCLE ☐ Irr Scheme ☐

District..... Hwange ..... Ward .....

Activity Reference # as per AWPB..... Venue.... DDC's office

Topics/Modules Covered .....

National ID of HH registered in the project (Household identifier number) (00-000000A00)	First Name of Participant	Surname	Gender (M/F	Year Of Birth	National ID of person participating in the activity DCST (00-000000A00)	PWD (Y/N)	Gender of Household (WHH/MHH)	Contact Number	Signature of Participant
02-011556602	SIMON	MULEYA	M	1963	DDC 02-011556602	N	MHH	07722[illegible]	
53-118166688	SIMBARASHE	KAYEM	M	1981	DDC 53-118166688	N	MHH	07756[illegible]	
24-173686785	NYAMAZO	MASOJA	F	1986	DDC 24-173686785	N	MHH	[illegible]	
58-206868B58	TAWANDA	CHIRATA	M	1981	AGRITEX 58-206868B58	N	MHH	07732[illegible]	
08-753602B58	RAYMOND	MAKHAGA	M	1981	SIRDC 08-753602B58	N	MHH	07788[illegible]	
AGRITEX	BEATRICE	PANGAMAN	F	1985	24 WUSUTGI	N	WHH	0714018924	
71-082670B5	SHANISO	MUZAMZA	F	1981	SIRDC 71-082670B5	N		07763[illegible]	
79-103032779	ABSENT	NCUBE	M	1981	SACP	N		0775905811	
3-018285B13	Khosiwe	Ncube	F	1962					
								07735653[illegible]	

b) Msuna

STAKEHOLDER CONSULTATION REGISTER- IFAD (RACP)

District: Hwange Date: 16/10/25 Venue: Msuna Irrigation Scheme

	Name and Surname	Physical Address	Contact Number	ID Number	Gender	Signature
1	Oliver Nyoni	Msuna Resort.	0779 089 803.	79-071510-S-79	M.	[illegible]
2	Senzeni Muzamba	Msuna Resort	0786878488	79-087336V-79	F	[illegible]
3	Lizzy Ndlovu	Msuna Resort	0777764756	79-106231-H-79	F	L.Ndlovu
4	Queen Ngwenya	Msuna Resort	0771613999	79-142319 J-79	F	Ngwenya
5	Fanikiso Ngwenya	Msuna Resort	0771614004	79-079021-G79	F	Fngwenya
6	Lambine Munkuli	Msuna Resort	0774137576	79-111617-M79	F	L.Munkuli
7	Virginia Sibanda	Msuna Resort	0776998795	79-037257-L79	F	V.Sibanda
8	Simangele Mubaka	Msuna Resort	0784258959	79-126411-S-79	F	S.Mubaka
9	Lucia Mulega	Msuna Resort	0771731304	79-071676-V-79	F	Lmulega
10	Zondiwe Nyathi	Musuna Resort	0776104920	79-078921y06	F	Z.Ny
11	Memory Mugande	Musuna Resort	0776097437	79-065130-G06	F	M.Mugande
12	Miriam Hlatshwayo	Msuna Resort		08-415240213	F	M.Hlatshwayo
13	Luzani Mumpande	Msuna Resort	0775627735	79-108078-Q-06	F	Mumpande
14	Mildred Mumpande	Msuna Resort	0771683469	79-142311 A 79	F	MM de
15	Musowe Nyoni	Msuna Resort	0771731256	79-087326-J79	F	M.Nyoni
16	Jessie Chuma	Msuna Resort	0785435761	79-143404 N79	F	Chuma
17	Sh Cristena Shoko	Msuna Resort	0782[illegible]	79-	F	Shoko

c) Tshongokwe

17/10/25 Nat North: Tshongokwe Irrig Scheme: Lupane District
12:58pm

	Name and Surname	DEPARTMENT/ WARD	~~Physical Address &~~ contact number	Gender ~~and Designation~~	Signature
7	Sikhobisiwe Ndlovu	08	0719698263	F	S. Ndlovu
	Sikhumbuso Ngwenya	08	0782-234543	F	S Ngwenya
8	NoRAh Nyoni	08	0782112337	F	N Nyoni
	Siphathisiwe Luphahla	08	0771071083	F	Luphahla
9	Nonhlanhla bhebe	08	0789355597	F	N. bhebe
	Sithandeni Milo	08	0778278046	F	Milo
10	Mitria Ndlovu	08	0778568185	F	M. Ndlovu
	Assa Ncube	08	0719013030	f	Ncube.
11	Thandekile Mpofu	08	0774349060	F	T. Mpofu
	Siphathaba Nyoala	08	0789169365	f	Nyoala
12	Ndlovu Ardah	08		F	A Ndlovu
	Hilary Magagula	08	0777322883	F	H. Magagula
13	Cecilia Ndlovu	08	0783861526	F	C. Ndlovu
	Gladys Maseko	08	0779073780	F	G. Maseko
14	Nomasiko Ndlovu	08	0777077896	F	Ndlovu
	Hilolah Rumalo	08	0786440770	F	H. Rumalo

Name Surname	Ward	Phone number	Gender	Signature
Rynos Mpofu	Sobendle	0775875921	F	Mpofu
Getrude Ngwenya	Sobendle	0785797708	F	G. Ngwenya
Silinaleni Moyo	Sobendle	0779124348	F	S Moyo
Thembelihle Ncube	Sobendle	0776525362	F	T Ncube
Siphetheni Khumalo	"	0789284891	F	Khumalo
Collen Mpofu	"	0777703090	M	
Trabani Sibanda	"	0784229534	M	T. S
OZIAS NCUBE	"	0773702377	M	OS
Raphael Ngwenya	"	0778426426	M	Ngwenya
CHRISTOPHER moyo	8	0773896072	M	
N/ Ncube	8	0782861011	M	
Melisen Ndlovu	8	0782870161	M	
Michael Ngwenya	8	0779383656	M	Ngwenya
MERVIS Ncube	8	0779238326	F	MERVIS

d) Lukosi

Lukosi Irrigation Meeting, 16/10/25

Name	I.D Number	Sex	Contact	Sign
Beauty Sibanda	79-106074-M-79	F	0777637019	BSibanda
Rita Mpala	79-003126 M79	F	0778894562	RMpala
TALI NYONI	79-012053G-79	M	0773929093	TNyoni
ARENITA Nyoni	79-09964-7-B-79	F	0777375848	ANyoni
Jenet Tshuma	79-011464-A-79	F		JTshuma
Jacqueline Nyoni	79-12-39-85-F 79	F	0779549940	JNyoni
Ybani Shoko	79.149543L 79	F	0784603290	Shoko
Veronica Zulu	79-014426-V-79	F	0784110613	VZulu
IREN Sibanda	79-005049-C-79	F	0779928473	I.Sibanda
Patrao Nyoni	79-018621 E-79	F	0778816822	P.Nyoni
Dobi Sibanda			0777739 5384	D.Sibanda
Sesiwe Mupande	79-		0777754169	S.Mupande
Ottilia Sibanda	79-009218J-79	F	0785638379	O.Sibanda
CHIRIT DUBZ	79-093166-G79	F	0781320298-79	CDube
NDAizivei Gambazi	78-119620548	F	0785378561	NGambazi
Kwendani Shoko	79-109544879	F	0776277581	KShoko
Ketiwe Nyoni	79-063231-T-79	F	0785408505	KNyoni
Tibulisa Sibanda	79-080092W-79	F	0781932294	TSibanda
TINA CHANGE	79-017378-D-79	F	0771600318	T.Change
Esnat Tshuma	79-102307-M-79	F	0772226283	E Tshuma
Diana Zinanzika	79-2003K-58	F	0783956896	D Zinan
Beauty Munsaka	79-140948-T-79	F	0786134362	BMun
Bezinile Munsaka	79-142227-J-79	F	0776097560	BMun
Spepiswe Mpala	24-093671403	F	0772364624	SMpala
ANGELA NYONI	79-073801-H-79	F	0774964845	ANyoni
Khesiwe Neule	73-018255-S-73	F	0773565312	KNeule

Appendix 2: Biodiversity Inventory Table For Matabeleland North Province Covering Hwange, Binga, Nkayi, and Lupane

Presence is indicated by **X**, absence by.

Plant Inventory

Scientific name	**Common name**	**Vernacular (Ndebele/)**	**Hwange**	**Binga**	**Nkayi**	**Lupane**
Trees / woody species						
Colophospermum mopane	Mopane	Iphane	X	X	X	X
Faidherbia albida	Winter thorn / Ana tree	Umpumbu	X	X	.	.
Terminalia sericea	Silver cluster-leaf	Umangwe	X	X	X	X
Kirkia acuminata	White seringa	Umvumile	X	X	X	X
Combretum imberbe	Leadwood	Umtshenalotha / Umtshwili	X	X	X	X
Vachellia tortilis (syn. *Acacia tortilis* agg.)	Umbrella thorn	Ingoka / Isanqawe / Umsasane	X	X	X	X
Dichrostachys cinerea	Sickle bush	Ugagu	X	X	X	X
Boscia albitrunca	Shepherd's tree	Umtopi / Umhlope / Umbombwe	X	X	X	X
Spirostachys africana	Tamboti	Umthombothi / Ubande	X	X	.	.
Pericopsis angolensis	Mukwa / Afrormosia	Ubanga ; Mubanga ( )	X	X	X	X
Commiphora marlothii	Paperbark corkwood	Ikwazakwaza / Umqoqodo ; Kabongobongo ( )	X	X	.	X
Afzelia quanzensis	Pod mahogany	Ihlene / Umkamba	X	X	.	.
Acacia nigrescens (syn. *Senegalia nigrescens*)	Knob-thorn	Umkhayamhlophe / Isinanga / Katopa	X	X	X	X
Celtis africana	White stinkwood	Umdlawuthu	X	.	X	X

Scientific name	Common name	Vernacular (Ndebele/)	Hwange	Binga	Nkayi	Lupane
Ozoroa paniculosa	Resin bush	—	X	X	X	X
Peltophorum africanum	African wattle	—	X	.	X	X
Grasses						
Heteropogon contortus	Spear grass / Tanglehead	Inzala	X	X	X	X
Themeda triandra	Red grass / Red oat grass	—	X	X	X	X
Hyparrhenia rufa	Giant thatching grass	—	X	X	X	X
Eragrostis curvula	Weeping lovegrass	—	X	X	X	X
Sporobolus festivus	Red / fairy dropseed	—	X	X	X	X
Enteropogon macrostachyus	Mopane grass (needlegrass)	—	X	X	X	X
Aristida adscensionis	Six-weeks three-awn	—	X	X	X	X
Cynodon dactylon	Couch grass	—	X	X	X	X

Fauna Inventory

Scientific Name	Common Name	Vernacular (Ndebele/)	Hwange	Binga	Nkayi	Lupane
MAMMALS						
Loxodonta africana	African Elephant	Indlovu	X	X	.	.
Syncerus caffer	African Buffalo	Inyathi	X	X	.	.
Giraffa	Southern Giraffe	Indlulamithi	X	X	.	.
Panthera leo	Lion	Ibhubesi	X	X	.	.
Panthera pardus	Leopard	Ingwe	X	X	X	X
Lycaon pictus	African Wild Dog	Inja yeganga	X	X	.	.
Crocuta	Spotted Hyena	Impisi	X	X	X	X

Scientific Name	Common Name	Vernacular (Ndebele/)	Hwange	Binga	Nkayi	Lupane
Acinonyx jubatus	Cheetah	-	X	.	.	.
Hippopotamus amphibius	Hippopotamus	Imvubu	.	X	.	.
Equus quagga	Plains Zebra	-	X	X	.	.
Aepyceros melampus	Impala	Imphala	X	X	X	X
Tragelaphus strepsiceros	Greater Kudu	-	X	X	X	X
Kobus ellipsiprymnus	Waterbuck	-	X	X	.	.
Sylvicapra grimmia	Common Duiker	Idizanyana	X	X	X	X
Oreotragus	Klipspringer	-	X	X	.	.
Papio ursinus	Chacma Baboon	Inkawu	X	X	X	X
Chlorocebus pygerythrus	Vervet Monkey	-	X	X	X	X
Phacochoerus africanus	Warthog	Ingulube yeganga	X	X	X	X
Hystrix africaeaustralis	Cape Porcupine	-	X	X	X	X
Paraxerus cepapi	Smith's Bush Squirrel	-	X	X	X	X
Aonyx capensis	African Clawless Otter	-	.	X	.	.
Hyaena brunnea	Brown Hyena	-	X	.	.	.
Orycteropus afer	Aardvark	-	X	X	X	X
REPTILES						
Crocodylus niloticus	Nile Crocodile	Ingwenya	.	X	.	.
Varanus niloticus	Nile Monitor	Inyandezulu	X	X	X	X
Python natalensis	Southern African Python	-	X	X	X	X
Dendroaspis polylepis	Black Mamba	Imamba emnyama	X	X	X	X

Scientific Name	Common Name	Vernacular (Ndebele/)	Hwange	Binga	Nkayi	Lupane
Naja mossambica	Mozambique Spitting Cobra	-	X	X	X	X
Bitis arietans	Puff Adder	-	X	X	X	X
Hemachatus haemachatus	Rinkhals	-	X	X	.	.
Chamaeleo dilepis	Flap-necked Chameleon	-	X	X	X	X
AMPHIBIANS						
Amietia angolensis	Common River Frog	-	X	X	X	X
Sclerophrys gutturalis	Guttural Toad	-	X	X	X	X
Sclerophrys poweri	Lowveld Toad	-	X	X	.	.
Ptychadena mascareniensis	Mascarene Grass Frog	-	X	X	X	X
Kassina senegalensis	Bubbling Kassina	-	X	X	X	X
BIRDS						
Haliaeetus vocifer	African Fish Eagle	-	X	X	.	.
Terathopius ecaudatus	Bateleur	-	X	X	.	.
Aquila rapax	Tawny Eagle	-	X	X	X	X
Polemaetus bellicosus	Martial Eagle	-	X	.	.	.
Gyps africanus	White-backed Vulture	-	X	X	.	.
Torgos tracheliotos	Lappet-faced Vulture	-	X	.	.	.
Tyto alba	Barn Owl	Isikhova	X	X	X	X
Bubo africanus	Spotted Eagle-Owl	-	X	X	X	X
Ciconia nigra	Black Stork	-	.	X	.	.
Ardea goliath	Goliath Heron	-	.	X	.	.
Sarkidiornis melanotos	Comb Duck	-	.	X	.	.

Scientific Name	Common Name	Vernacular (Ndebele/)	Hwange	Binga	Nkayi	Lupane
Vanellus senegallus	Senegal Lapwing	-	.	X	.	.
Charadrius pecuarius	Kittlitz's Plover	-	X	X	.	.
Phoeniconaias minor	Lesser Flamingo	-	.	X	.	.
Tockus leucomelas	Southern Yellow-billed Hornbill	-	X	X	X	X
Coracias caudatus	Lilac-breasted Roller	-	X	X	X	X
Merops bullockoides	White-fronted Bee-eater	-	.	X	.	.
Ploceus cucullatus	Village Weaver	-	X	X	X	X
Bubalornis niger	Red-billed Buffalo-Weaver	-	X	X	X	X
Lamprotornis chalybaeus	Greater Blue-eared Starling	-	X	X	X	X
Lamprotornis nitens	Cape Glossy Starling	-	X	X	X	X
Columba guinea	Speckled Pigeon	-	X	X	X	X
Numida meleagris	Helmeted Guineafowl	Inkuku yezintaba	X	X	X	X

Appendix 3: Detailed Species Lists

The following is a province-by-province tree presence matrix using project districts and matched irrigation schemes.

Legend:

X = recorded or highly likely (from RPAs, scheme notes, regional ecology):

• = **absent/unlikely** (or not suitable to local habitat).

Matabeleland North (Gwayi Catchment)

Species vs. District/Scheme

Tree species	**Binga (TBC)**	**Hwange – Lukosi**	**Hwange – Msuna**	**Nkayi (TBC)**	**Lupane – Tshongokwe**
Colophospermum mopane (Mopane)	X	X	X	•	X
Faidherbia albida (Ana tree)	X	•	X	•	•
Vachellia tortilis (Umbrella thorn)	X	•	X	•	•
Senegalia polyacantha (White thorn)	X	X	X	•	•
Brachystegia spiciformis (Miombo)	•	•	•	X	X
Julbernardia globiflora (Miombo)	•	•	•	X	X
Combretum imberbe (Leadwood)	X	X	X	•	•
Combretum molle	•	X	•	X	X
Terminalia sericea (Kalahari sand)	X	X	•	X	X

Tree species	**Binga (TBC)**	**Hwange – Lukosi**	**Hwange – Msuna**	**Nkayi (TBC)**	**Lupane – Tshongokwe**
Sclerocarya birrea (Marula)	X	X	X	X	X
Ziziphus mucronata (Buffalo thorn)	X	X	X	X	X
Berchemia discolor (Bird plum)	X	X	X	•	•
Kirkia acuminata (White syringa)	•	X	•	•	•
Piliostigma thonningii	•	X	•	X	X
Dichrostachys cinerea (Sickle bush)	X	X	X	X	X
Pterocarpus angolensis (Mukwa)	•	X	•	X	X
Albizia adianthifolia	•	X	•	•	•
Trichilia emetica (Natal mahogany)	•	•	X	•	•
Syzygium cordatum (Waterberry)	•	X	X	•	•
Erythrina abyssinica (Coral tree)	•	X	•	X	X

Appendix 4 Kusile Rural District Council, Questionnaire

DDC

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 MASHONALAND EAST MATABELELAND NORTH 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 Sifiso Hadebe_____
b) Occupation/ Designation ____Chief Executive Officer_____
c) Organization: _____Kusile Rural District Council Landline: __+263 81 285 6404_____
d) Physical Address _____Stand # 250 Kusile Township Lupane_
e) Email Address: ____frontoffice@kusileruraldistrictcouncil.com _

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland East Province Yes ☐ No ☒
2. How did you get to know about the proposed RACP activities?
   Proponent ☒ wn 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 productivity
   Improved livelihoods
   Improved access to markets
   Reduced impact of climate change

DDC

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

   Yes ☐ No ☒

   If yes explain

   _____

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?
   - Choosing the most efficient and effective crop production systems for different varieties,
   - Impacts of climate change on agriculture and post-harvest production,
   - Environmental impacts on production, productivity and product quality.

Signature _____ Date 20_/_10 /_2025_

DATE STAMP:

2 0 OCT 2025

P.O. BOX 21, LUPANE
TEL: 0 11 2856 [illegible]

Appendix 5: Lupane Rural District Council - DDC

ORGANISATION DDC OFFICE LUPANE

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 BLESSING TEMBANI
b) Occupation/ Designation ACCOUNTANT
c) Organization: DDC OFFICE LUPANE Landline: 0812 856 507
d) Physical Address DDC COMPLEX LUPANE
e) Email Address: lupaneda@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 ☐

ORGANISATION.....DDC OFFICE LUPANE.....

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?
- Solar powered pumping scheme
- More water from drilled boreholes
- More food and Incomes

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

Yes ☑ No ☐

If yes explain
(1) Security of infrastructure
(2) Exclusion of other members
(3) Quality of infrastructure and workmanship

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

ORGANISATION.....DDC office Lupane.....

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

(1) Need to involve community leadership and as much as possible employ from local community.
(2) expect staff to uphold good morals
(3) mitigate against collapse of boreholes
(4) Avoid deforestation

Signature BC Date 26 / 11 / 2025

DATE STAMP:

DISTRICT ADMINISTRATOR
LUPANE
MIN. OF LOCAL GOVERNMENT, PUBLIC WORKS AND NATIONAL HOUSING
26 NOV 2025
P.O. BOX 58, LUPANE
ZIM. TEL: 0389-289/507

Appendix 6: Hwange Rural District Council - RDC

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 MATEBELELAND NORTH 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 MORDEN MAPANI
b) Occupation/ Designation SOCIAL SERVICES OFFICER
c) Organization: HWANGE RDC Landline: Cell 0772942573
d) Physical Address 119 LUKOSI SERVICE CENTRE, HWANGE
e) Email Address: morden.mapani@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matebeleland North 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?
   - Climate-proof agriculture
   - Drought resilient mitigation strategies
   - Improved community livelihoods

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

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

Not to my knowledge

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

Consult the local/traditional leadership and be guided by them.

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

, Address co-operative group dynamics
, Preservation of endangered trees species

Signature: _____ Date 16/10/25

DATE STAMP:

HWANGE RURAL DISTRICT COUNCIL
SOCIAL SERVICES OFFICER
16 OCT 2025
PO BOX 165 HWANGE
TEL 08128 22541

Appendix 7: Hwange DDC

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 MATEBELELAND NORTH 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: ***Mrs Nyaradzo Masoja***
b) Occupation/ Designation: ***Acting DDC***
c) Organization: ***Ministry of Local Government Public Works & National Housing.*** Landline: ***22245***
d) Physical Address: ***DDC's Complex,121 Coronation Drive, Hwange***
e) Email Address: ***dahwange.gmail.com***

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matabeleland North 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 livelihoods, Improved diet, Infrastructural development***
5. Are there any development related concerns likely to arise because of the proposed

DISTRICT DEVELOMENT CORDINATOR

RACP activities?

Yes No

If yes explain: *Infrastructural development.*

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

N/A

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? *No*

Signature PP Date 25 / 11 / 25

DATE STAMP:

DISTRICT DEVELOPMENT
COORDINATOR
HWANGE

25 NOV 2025

P.O. BOX 121, HWANGE
TEL: 026-2204[illegible]-6

Appendix 8: Binga RDC

RURAL DISTRICT COUNCIL

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 MATEBELELAND NORTH PROVINCE.

Introduction.

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RESPONDENTS INFORMATION

a) Title (Mr/~~Mrs/Dr/Prof/Rev~~) & Name Lakemore Siamayi
b) Occupation/ Designation Executive officer Environment & S
c) Organization: Binga RDC. Landline: 015-271
d) Physical Address Box 36
e) Email Address: binga rdc@gmail.com / siamayi4@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matabeleland North 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?
Employment creation
Improve livelihoods.

CHIEF EXECUTIVE OFFICER
BINGA RURAL DISTRICT COUNCIL
14 NOV 2025
P.O. BOX 36 BINGA
TEL: 267/449

RURAL DISTRICT COUNCIL

Improved community projects

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

Yes [✓] No [ ]

If yes explain

1) Engagement is not done correctly
2) community values are not considered
3) the projects operates outside other projects

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

Not found

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

Observe cultural norms and procedures

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

1. Observe animal concerns
2. Consider climate change plan of the district
3. Conduct an EIA.
4. Employment should consider locals
5. Proponent to always liase with local authorities

Signature _____ Date 14 / 11 / 2025

DATE STAMP:

CHIEF EXECUTIVE OFFICER
BINGA RURAL DISTRICT COUNCIL
14 NOV 2025
P.O. BOX 36, BINGA
TEL.: 267/449

Appendix 9: Binga DDC

RURAL DISTRICT COUNCIL- DDC

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 MATEBELELAND PROVINCE.

Introduction.

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MP). 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 MUNSAKA OBATI
b) Occupation/ Designation ADMINISTRATIVE OFFICER DDC'S OFFICE
c) Organization: LOCAL GOVERNMENT Landline:
d) Physical Address LOCAL GVT OFFICES-BINGA, BOX 2
e) Email Address: Odosmunsaka 55 @gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matabeleland North 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?
Improvement in people's livelihood strategy through the consumption of nutritious foods and also promoting food security in the entire district of the project area.

RURAL DISTRICT COUNCIL- DDC

Enhancement of environmental and natural resources management at grassroots level as well socio-economic wellbeing of the local populall

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

6. Yes ☑ No ☐

If yes explain

Environmental degradation as a result of clearing land for agriculture unless austerity measures are applied in that regard at the onset of the proposed undertaking.

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

The Chubwatata hotsprings, Nachulwe Mountain range, Nhindazi, etc, are some of the cultural sites found in the project area.

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

To make extensive consultative processes with the participating community on the way forward.
- The developer is highly advised to apply IK Systems.

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

To place high regards and respect on the community's cultural beliefs, norms and prevailing practices. Economic and environmental issues as well as the social aspect must place people's critical needs first.

Signature Munsilca Date 24/10/2025

DATE STAMP:

Appendix 10 Nkayi RDC

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 MATEBELELAND NORTH PROVINCE.

Introduction.

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RESPONDENTS INFORMATION

a) Title (Mr/Mrs/Dr/Prof/Rev) & Name MAPISI LANGELIHLE
b) Occupation/ Designation EO ENVIRONMENT
c) Organization: NKAYI RURAL DIST. COUNCIL Landline: 0552558273 | 314
d) Physical Address NKAYI RDC, NKAYI GROWTH POINT
e) Email Address: nkayirdc@yahoo.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matebeleland North 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?
   Reduction of the climate change impacts as communities will be capacitated on smart-agriculture practices, forest restoration and sustainable social & economic practices.

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
Project funding is always a concern in Nkayi communities as most people are not gainfully employed and are also earning very little from agriculture, forestry and other means.

7. Are there any cultural/heritage sites located in the project area? Yes ☑ No ☐
There is a cultural site at Dakamela ward 16 and another in Ward 5 Mbazhe Bird Sanctuary.

8. If yes what is expected of the Developer by the Community?
The communities expect the Developer, to commit to cooperate social responsibility. Communities identify and inform the developer of their expectations.

9. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?
Communities should be informed and aware of what is happening at each stage of development.

Signature _____ Date 28 / 10 / 25

DATE STAMP:

ENVIRONMENT DEPARTMENT
NKAYI RURAL DISTRICT COUNCIL
28 OCT 2025
P.O. BOX 20 NKAYI
TEL. (0552) 558 314/273
Email:info@nkayirdc...

Appendix 11:Nkayi DDC

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 MATEBELELAND NORTH PROVINCE.

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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
b) Occupation/ Designation _____DDC
c) Organization: _____MLGPW Landline: _____0552558218
d) Physical Address _____ DDC Compound, Nkayi Growth Point
e) Email Address: _____ nkayida@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Matabeleland North Province ..Yes☐

2. How did you get to know about the proposed RACP activities? ……Proponent

3. From your own point of view, does the project bring benefits to the project area and the
province at large? Yes

4. If yes what are the benefits? -
_____
   - Address nutrition issues
   - Mechanization of boreholes
   - Disaster Risk Management

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

   If yes explain _____
   - Community conflicts, garden, community and livestock

   Are there any cultural/heritage sites located in the project area? …… No
   _____
   _____
   _____
   _____

6. If yes, what is expected of the Developer by the Community?
   _____
   _____N/A_____
   _____
   _____
   _____

7. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?
   - There is need to address land degradation issues.

   Signature __ N. M. Hlumbayo _Date 10/11/2025

   DATE STAMP:

Appendix 12: 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, safeguarding 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.
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 Matebeleland North, 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 Matebeleland North: Lukosi, Msuna and Tshongokwe, as well as associated catchment restoration, market infrastructure development, and village business units. These clusters fall within Gwayi 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 engagem**ent** 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 Matebeleland North 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 the 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 the 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 Matebeleland North 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; Matebeleland North, 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 Matebeleland North 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 1**.

Table 1: *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 Mashonaland 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 **Table 2**.

Table 2: 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

Stakeholder Group	Interest in RACP	Influence on Project	Required Engagement Approach
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 in Table 3), updated quarterly and coordinated by the District SACP/RACP Agricultural Officer, with oversight from the Provincial PMU.

Table 3: 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 Pla**n**, 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:

a) 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.

b) 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

c) 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.

d) 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:

a) 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.

b) 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.

c) 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.

d) 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.

e) 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 the 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 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 4**.

Table 4: 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.

a) 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.

b) 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.

c) 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.

d) 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:

a) **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.

b) **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.

c) **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:

a) **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.

b) **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.

c) **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.

d) **ZINWA Sub Catchment Council**

ZINWA plays a key role in communicating water allocation decisions, explaining water permits and managing catchment wide engagement.

e) **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.

f) **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:

a) **Provincial AGRITEX Directorate**

Coordinates technical messaging and harmonises engagement planning across districts.

b) **Provincial Irrigation and Mechanisation Departments**

Oversee district level engagement quality and provide backstopping during design review, construction supervision and scheme handover.

c) **EMA and ZINWA Provincial Offices**

Provide provincial level environmental and water governance oversight, support awareness campaigns and participate in provincial review forums.

d) **Provincial Development Coordinator's Office**

Chairs provincial review meetings and ensures alignment of engagement with broader development priorities.

e) **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:

a) **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.

b) **Ministry of Lands, Agriculture, Fisheries, Water and Rural Development**

Provides policy guidance, ensures harmonisation across departments and elevates unresolved issues to national platforms.

c) **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 Matebeleland North 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 5**.

Table 5: 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 6.

Table 6: 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 work planning process. The table below 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, 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.

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

DEFINITIONS

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. 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 6). 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.

Figure 6: 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 scope 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 7.

Figure 7: 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 45 summarises the alignment between GRM principles and the corresponding regulatory or institutional frameworks guiding RACP implementation.

Table 45: 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
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 in Table 46.

Table 46: 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:

To ensure that all project stakeholders are informed about the GRM's purpose, procedures, and benefits in a language and format they understand.

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.

To facilitate the prompt submission, acknowledgement, and resolution of grievances through multiple communication channels.

To maintain transparency and feedback loops between complainants, implementers, and oversight bodies.

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 8.

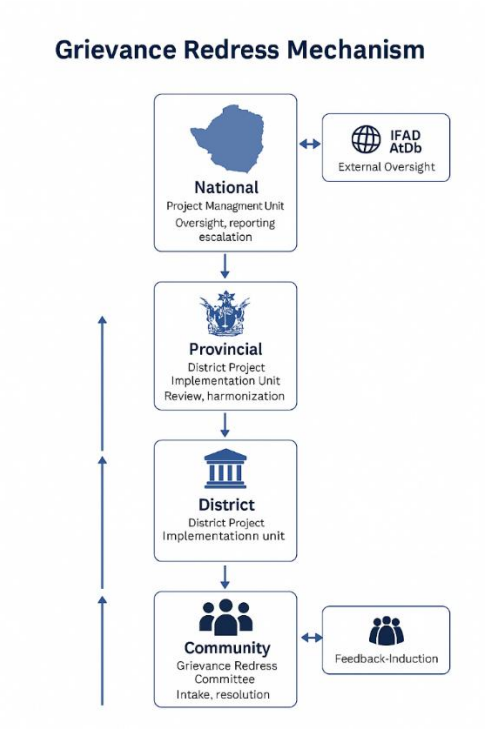

Figure 8: GRM Communication Flow

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, 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:

To ensure that all project stakeholders are informed about the GRM's purpose, procedures, and benefits in a language and format they understand.

To promote inclusive participation and ensure marginalized groups, especially women, youth, persons with disabilities, and vulnerable households can access the mechanism without barriers.

To facilitate the prompt submission, acknowledgment, and resolution of grievances through multiple communication channels.

To maintain transparency and feedback loops between complainants, implementers, and oversight bodies.

To enhance institutional reputation by demonstrating accountability, responsiveness, and social responsibility in line with IFAD, AfDB, and Zimbabwean expectations.

6.1 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 or technical 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.

6.2 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.

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 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.

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 **Error! Reference source not found.**.

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.

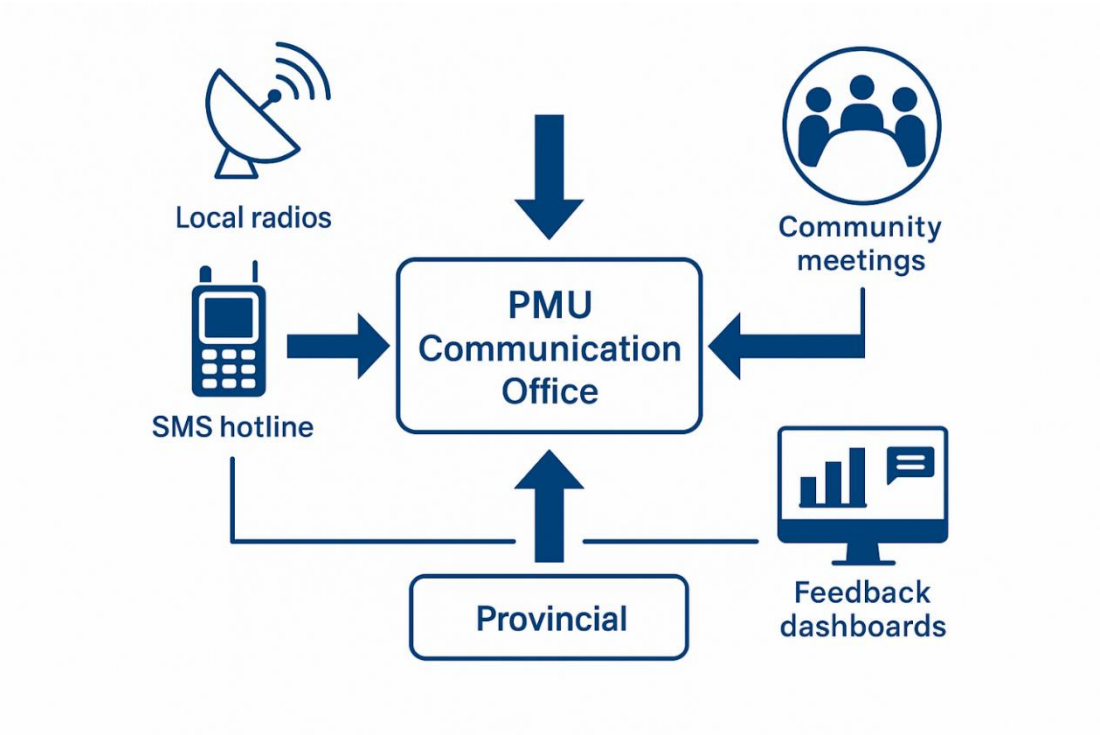

Figure 9: Feedback architecture

Figure 9 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 10).

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:

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.

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.

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 the full RACP GRM and upon resolving a grievance within the RACP GRM document Appendix 13 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.

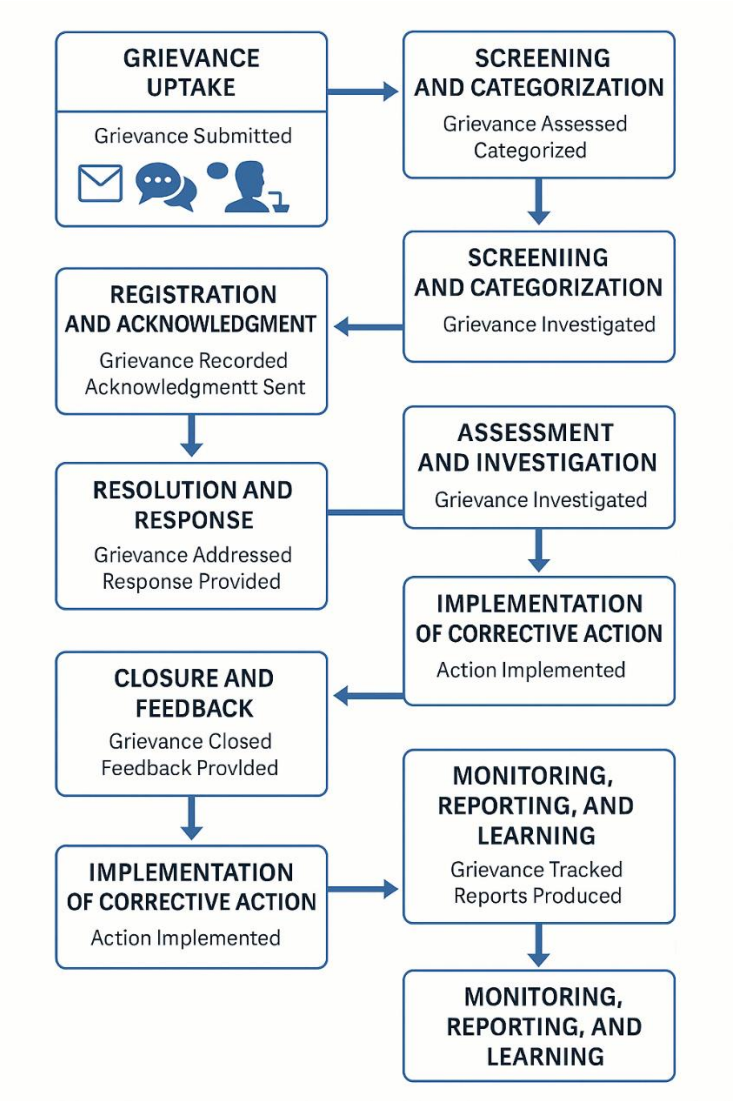

Figure 10: Steps of the grievance handling cycle

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 **Error! Reference source not found.** are applied across all l evels.

Table 47: 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:

First-Level Verification: Conducted at district level by safeguards focal persons before data submission.

Second-Level Verification: Provincial safeguards specialists check consistency, completeness, and timeliness of records.

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 11.

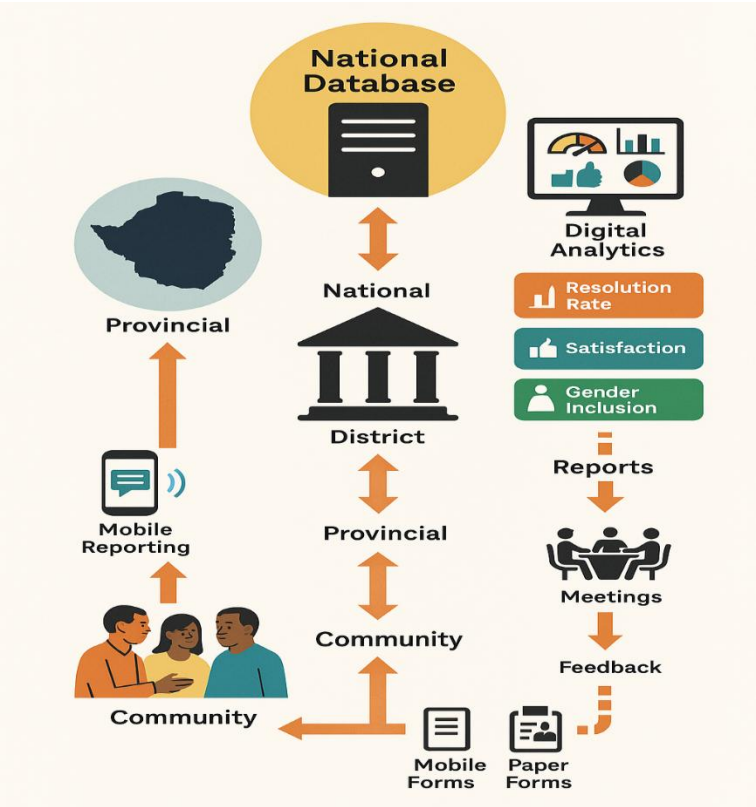

Figure 11: GRM reporting paths

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:

To strengthen understanding of GRM principles, procedures, and institutional responsibilities at all implementation levels.

To enhance the ability of committees and focal persons to manage grievances in line with IFAD, AfDB, and national standards.

To promote a culture of accountability, transparency, and rights-based communication among project stakeholders.

To build technical capacity for managing sensitive cases such as GBV/SEAH, labour grievances, and environmental incidents.

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 48).

Table 48: 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:

Introduction to the GRM: Objectives, guiding principles, and institutional arrangements.

Grievance Handling Procedures: Step-by-step process from receipt to closure.

Data Management and Reporting: Use of grievance logs, forms, and the digital database.

Communication and Awareness Techniques: How to communicate grievance information clearly and inclusively.

Conflict Resolution and Mediation: Techniques for negotiation and peacebuilding in community settings.

Gender-Based Violence (GBV) and SEAH Handling: Survivor-centered approaches, confidentiality, and referral mechanisms.

Environmental and Labour Grievances: Technical response procedures, safety standards, and coordination with EMA.

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:

Annual Performance Reviews: Assess GRM indicators, training effectiveness, and stakeholder feedback.

Periodic Revision of Manuals: Update operational guidelines and templates to reflect lessons learned.

Integration with Safeguards Monitoring: Use grievance data to inform broader environmental and social management improvements.

Feedback Loops: Encourage communities to evaluate the effectiveness of the GRM during review sessions.

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 49 presents a simplified monitoring table for key performance areas (KPA).

Table 49: 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.

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.

Learning Notes and Case Studies: Documenting specific grievance cases that led to positive change (e.g., improved irrigation water scheduling, equitable compensation models).

Feedback to Communities: Biannual community feedback sessions report on how grievances influenced project decisions and resource allocation.

Adaptive Management: Revision of ESMPs, contractor contracts, and operational guidelines based on grievance trends.

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 50.

Table 50: 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
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:

Integration of grievance analysis into annual planning and budgeting cycles.

Systematic updating of operational manuals to reflect emerging issues.

Joint IFAD–AfDB–Government supervision missions that review performance metrics and recommend improvements.

Annual “Safeguards Innovation Awards” recognising local committees or officers who demonstrate outstanding responsiveness.

Development of a Live GRM Toolkit, that 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 51 summarises the linkages of the GRM to national and external mechanisms.

Table 51: 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 remediation plan	Environmental Safeguards Specialist	Initial action within 5 working days
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

Mechanism	Mandate for GRM Interface	Typical Triggers	Expected Output	PMU Liaison	Service Standard
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 52.

Table 52: 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 53.

Table 53: Survivor-Centered Handling Steps

Step	Purpose	Time Standard	Responsible
Safe intake by trained focal person	Create a confidential and supportive environment	Immediate	GBV/SEAH Focal Person
Informed consent and options	Provide information and respect choices	Immediate	Focal Person
Referral to services	Access health, psychosocial, legal support	Within 24 hours	Focal Person and District Social Worker
Security and protection planning	Reduce risk of retaliation	Within 48 hours	Focal Person with VFU
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 54).

Table 54: 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
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 55) 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.

Table 55: 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.

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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

Section	Field / Description	Input / Notes
	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.
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.

Field Category	Database Field / Column Name	Description
	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.
	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 14: Integrated Pest Management Plan

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 56 below presents the core indicators to be monitored.

Table 56: 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
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 57.

Table 57: 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 58.

Table 58: 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 59.

Table 59: 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.

11.2 Environmental Safeguards Integration

Integrated Pest Management 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 60 below provides an annualised estimate supporting irrigation schemes

Table 60: 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.

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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 Matebeleland North.

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

idespread in household granaries and grain aggregation centers.

2. Larger Grain Borer

Prostephanus truncates

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 truncates

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 IRRIGATION 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

Category	Status for IPMP	Notes
Biopesticides	**Fully allowed**	Preferred under Integrated Pest Management
Neem/plant extracts	**Fully allowed**	Safe and sustainable

Appendix 15: Baseline Data Tables

District-Level Baseline Summary Table (Key Indicators)

Key Indicator Category	Binga District	Hwange District	Lupane District	Nkayi District
Topography & Landform	Semi-arid, low-lying Zambezi Valley; rugged terrain; riverine escarpments.	Undulating terrain; Kalahari sands; mixed woodland; valley–ridge systems.	Gently undulating; deep Kalahari sands; flat plains; woodlands.	Flat to gently undulating; sandy soils; moderately wooded.
Climate	Very hot; low rainfall; extreme drought frequency; high evapotranspiration .	Hot, semi-arid; variable rainfall; periodic storms.	Semi-arid; moderate temperatures; erratic rainfall.	Semi-arid; heavy dry spells; moderate rainfall variability.
Rainfall Pattern	350–500 mm/year; most drought-prone district.	450–600 mm/year; rainfall variability increasing.	500–650 mm/year; shorter seasons.	500–650 mm/year; frequent mid-season droughts.
Water Resources	Zambezi River systems; seasonal streams; severe water scarcity inland.	Lukosi & Msuna depend on Zambezi abstraction & Kalope Dam; siltation issues.	Tshongokwe Dam (heavily silted) + solar boreholes; limited recharge.	Seasonal rivers; limited surface water; groundwater variable.
Soils	Sandy, shallow, low fertility; erosion-prone.	Kalahari sands; low fertility; pockets of clay-loam in valleys.	Deep sands; low nutrient retention.	Sandy loams; moderate fertility but drought sensitive.
Biodiversity & Habitats	High biodiversity near Zambezi; wildlife corridors (elephants, buffalo).	Hwange National Park proximity; dense wildlife movement.	Wooded savannah; wildlife presence moderate.	Moderately wooded; small wildlife corridors.
Road Safety Baseline	Poor gravel roads; steep valleys; long distances to health centres.	Mining trucks & tourism traffic increase accidents; poor signage.	Long travel distances; rural gravel roads deteriorate in rain season.	Narrow gravel roads; poor maintenance; limited signage.

Key Indicator Category	Binga District	Hwange District	Lupane District	Nkayi District
In-field Safety	Shared road use by people & livestock; poor visibility.	Unmarked irrigation routes; machinery–pedestrian conflict.	Ageing canals, leaking pipes; unmarked roads.	Shared use with livestock; limited OHS awareness.
Emergency Access	>30–50 km to nearest clinic; long emergency response time.	20–30 km to clinics; delays in rainy season.	20+ km to clinic; isolation during wet season.	Long distances; poor road quality delays response.
Security Baseline	High theft (livestock, solar equipment); wildlife–community conflict.	Theft of irrigation equipment; wildlife incursions; resource conflicts.	Theft of borehole equipment; vandalism to fences; boundary disputes.	Theft of assets; disputes over water access; weak policing.
Women's Safety & Gender Issues	Women walk long distances for water; GBV risk along riverbanks.	GBV concerns; limited women representation in schemes.	Women majority in Tshongokwe IMC but resource access challenges persist.	Women underrepresented ; cultural norms limit decision-making.
Wildlife Risks	Very high – elephants, hippos; crop raids common.	High near Hwange NP & Zambezi.	Moderate.	Low–moderate.
Boundary / Water Conflicts	Water-sharing conflicts common in dry months.	Conflicts over water distribution in schemes.	Boundary conflicts in irrigation blocks; water rationing issues.	Moderate conflicts over plot boundaries and water allocation.
Socio-Economic Conditions	High poverty; fishing & livestock dominant; poor market access.	Mixed livelihood: agriculture, mining, tourism; pockets of deep poverty.	Agriculture-livestock based; high unemployment ; limited irrigation productivity.	Agriculture & livestock; persistent poverty; limited markets.
Livelihood Activities	Fishing, goats, horticulture near Zambezi, petty trade.	Irrigated crops, livestock, tourism-linked trade.	Irrigated plot farming, dryland crops, goats & cattle.	Dryland crops, livestock, seasonal horticulture.
Vulnerable Groups	Women, child-headed	Women, youth, mine-	Women, elderly, water-	Youth, elderly, women, PwD.

Key Indicator Category	Binga District	Hwange District	Lupane District	Nkayi District
	households, elderly.	affected households.	insecure households.	
Gender Participation in Schemes	Limited; male-dominated committees.	Moderate participation but low leadership representation.	Better representation – Tshongokwe IMC has 5 women out of 7.	Low presence in decision structures.
Cultural Considerations	Tonga communities; cultural sites near river; strong traditional systems.	Mixed communities; traditional & mining cultures.	Ndebele communities; strong traditional authority.	Ndebele/Shona mix; customs influence participation.

Appendix 16: Climate Data Tables

Monthly Temperature and Precipitation Table for Hwange, Lupane, and Nkayi

(All values in °C for temperature and mm for precipitation)

Month	Hwange Temp (°C)	Hwange Precip (mm)	Lupane Temp (°C)	Lupane Precip (mm)	Nkayi Temp (°C)	Nkayi Precip (mm)
Jan	26.59	240	26.4	230	26.3	235
Feb	25.69	220	25.5	210	25.4	215
Mar	25.48	140	25.2	135	25.1	138
Apr	24.08	60	23.9	55	23.8	58
May	21.97	5	21.8	4	21.7	5
Jun	19.60	2	19.4	2	19.3	2
Jul	19.54	1	19.3	1	19.2	1
Aug	23.47	3	23.3	3	23.1	3
Sep	27.91	5	27.7	5	27.5	5
Oct	30.66	20	30.4	18	30.3	19
Nov	29.80	100	29.5	95	29.4	98
Dec	27.69	240	27.5	230	27.4	235

Appendix 17: Terms of Reference

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
Harare
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
Cc: PEM: MATABELELAND NORTH PROVINCE
: PEM MIDLANDS PROVINCE
: PEM MASHONALAND WEST PROVINCE
: PEM MASHONALAND CENTRAL PROVINCE
: PEM MASHONALAND EAST PROVINCE

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DATE: .....

DESIGNATION: .....

I.D NUMBER: .....

CONTACT NUMBER: .....

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)

Appendix 18: The Labour Management Plan

The Labour Management Plan

The Labour Management Plan for the Resilience Agriculture Cluster Project in Matebeleland North sets out 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.