



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

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) REPORT

RESILIENCE AGRICULTURE CLUSTER PROJECT (RACP) FOR ZIMBABWE

IN

MASHONALAND WEST

PREPARED BY



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EXECUTIVE SUMMARY

The Resilience Agriculture Cluster Project (RACP) is a Zimbabwean government initiative, backed by the African Development Bank (AfDB) and the International Fund for Agricultural Development (IFAD). Its objectives are to boost climate resilience, enhance agricultural productivity, and improve rural livelihoods through sustainable practices like irrigation rehabilitation, market infrastructure development, and capacity building. It targets thirty-two irrigation schemes across five provinces: Matabeleland North, Midlands, Mashonaland West, Mashonaland Central and Mashonaland East within four major catchments (Gwayi, Sanyati, Mazowe and Manyame). This ESMP is focusing on the rehabilitation and modernisation of the six schemes (Chomotamba, Lazenby, Chiwirirano, Seke-Sanyati, Takashinga and Shamrock) in Mashonaland West within the Sanyati catchment.

The project area comprises diverse agroecological 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Zimbabwe's agricultural sector is significantly vulnerable to climate change, land degradation, and outdated infrastructure. The selected districts depend heavily on inefficient water supply systems, leading to persistent issues such as low yields, unreliable harvests, and exacerbated rural poverty. The RACP aims to introduce climate-smart technologies, modern irrigation systems, energy-efficient pumping methods, and improved governance of water resources. These interventions are designed not only to boost agricultural productivity but also to directly benefit over 2,000 farmers, with indirect benefits extending to over 10,000 community members. As a result, these efforts will strengthen food security and improve overall economic resilience in the region.

Policy, Legal, and Institutional Alignment

The RACP's Environmental and Social Management Plan (ESMP) is meticulously aligned with Zimbabwean legislation and international standards. It adheres to 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, and various AfDB and IFAD operational safeguards related to environmental assessment, climate adaptation, and social inclusion. This robust framework ensures compliance with national and global obligations, promoting sustainable practices that protect biodiversity and enhance environmental stewardship.

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 the international level, the project aligns with obligations under the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, the Paris Agreement, the 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.

The socio-economic conditions across the seven irrigation schemes Chomutamba, Lazenby, Shamrock B2, Seke Sanyati, Chiwirirano, Takavinga and Maringau reflect the broader patterns of rural Mashonaland West Province, where livelihoods are strongly dependent on agriculture, household structures are youthful and fluid, and service delivery remains uneven. Populations are dominated by young people, while household sizes average between five and six members. Female-headed households range between 22% and 39%, influenced largely by male outmigration to artisanal mining areas, urban centres and neighbouring countries. Elderly-headed households are prominent in Chomutamba and Lazenby, where labour shortages affect agricultural productivity and participation in scheme management.

Access to land across the schemes is shaped by mixed tenure systems combining communal customary allocation, resettlement permits and informal arrangements. The ESMP report identifies widespread tenure insecurity in communal and A1 areas, particularly for women, who often cultivate plots without formal documentation. This situation is confirmed by the rapid assessments in Chiwirirano, Takavinga and Maringau, where widows and elderly women cultivate inherited plots lacking official recognition. Boundary disputes are common in Shamrock B2 and Takavinga due to informal plot expansions, while Lazenby exhibits stronger documentation but experiences abandoned or underutilised plots. This mixed tenure environment has implications for governance, investment, conflict management and long-term sustainability of irrigation benefits.

Livelihoods across the schemes are predominantly agricultural, revolving around irrigated horticulture, dryland cropping, livestock production and informal trade. Irrigation-supported horticulture particularly tomatoes, leafy vegetables, onions, sugar beans and butternuts forms

the main income source in Chomutamba, Seke Sanyati, Chiwirirano and Takavinga. Dryland crops such as maize, groundnuts and sorghum supplement household food security, while livestock provides financial buffers. Artisanal gold mining is a significant parallel income source in Sanyati, Chegutu and Mhondoro-Ngezi, contributing to irregular household incomes, youth migration and occasionally increased social tensions. Across the schemes, monthly cash incomes generally range between USD 70 and USD 160 depending on water availability, seasonality, market access and production costs.

Poverty and vulnerability remain widespread. The ESMP report identifies poverty hotspots in remote wards with poor transport networks, limited market integration and climate shocks. The rapid assessments further highlight that households in Takavinga, Chiwirirano and Shamrock often travel 20–35 kilometres to reach major markets, leading to high transport costs, post-harvest losses and reduced profitability. Vulnerable groups include the elderly, widows, women with limited resources, youth lacking land, and poor households reliant entirely on irrigation for both food and income. Schemes with weaker infrastructure and governance, such as Shamrock and Chiwirirano, face recurring production risks that deepen vulnerability.

Gender and youth dynamics reveal consistent patterns of inequality. Women contribute up to 70% of agricultural labour but remain underrepresented in leadership positions, often occupying less than one-third of IMC seats. Their responsibilities span irrigation scheduling, fencing, watering, weeding and carrying inputs over long distances. They also face heightened risks of GBV/SEA/SH due to early morning or night irrigation duties and when travelling to distant water points or fields. Youth face land access restrictions and limited opportunities within irrigation schemes, pushing many toward mining, motorbike transport services or informal trading to supplement family incomes.

Access to health facilities is constrained across all schemes. Households commonly travel 10–20 km to the nearest clinic, with distances particularly long in Shamrock, Takavinga and some parts of Chiwirirano. Rural clinics are often understaffed, have limited medication supplies and face challenges in handling maternal health cases, communicable diseases and water-borne illnesses. Outbreaks of diarrhoeal diseases are common, especially where irrigation water is used for domestic purposes or where boreholes are non-functional, as reported in Chiwirirano and Maringau. The limited availability of ambulances and poor road conditions further restrict emergency response, heightening vulnerability during health crises.

Education services are available but strained. Most communities have access to primary and secondary schools, but distances of 3–8 km pose challenges for young children, especially during the rainy season. Schools are often overcrowded, face shortages of qualified teachers and have inadequate infrastructure such as classrooms, science labs and ICT facilities. Financial constraints limit school attendance and retention, especially for girls during adolescence when cultural expectations, household labour demands and early marriage risks increase. The ESMP report identifies education quality gaps as a contributor to youth unemployment and limited technical skills within rural irrigation schemes.

Cultural beliefs and practices influence land use, gender roles, conflict management and natural resource conservation across the districts. Traditional leaders play a central role in land allocation, dispute resolution and enforcement of communal norms. Cultural expectations often place agricultural labour responsibilities on women and youth, reinforcing gendered divisions of labour. Beliefs surrounding sacred sites, wetlands and graveyards prevent cultivation in certain areas; this aligns with environmental conservation in some cases but also influences scheme layout and expansion. Seasonal rituals related to rainmaking, community gatherings, and ancestor veneration remain active in parts of Sanyati and Mhondoro-Ngezi, shaping social cohesion and collaboration within water management groups. At the same time, deeply embedded patriarchal norms contribute to limited land inheritance rights for women and their underrepresentation in leadership structures.

Social cohesion across schemes is influenced by governance effectiveness, resource availability and livelihood pressures. Conflicts frequently arise around water scheduling, pump usage, plot boundaries and IMC decision-making. While traditional leaders remain influential, their role is not always aligned with formal scheme governance requirements. Weak IMC record-keeping, low transparency and inadequate O&M systems contribute to tensions. Security risks, particularly theft of solar panels, pumps and pipes are widespread in Shamrock B2, Chiwirirano and Takavinga, reducing trust and increasing operational costs. Nighttime irrigation also poses personal safety risks for women and young people.

Overall, the socio-economic baseline demonstrates that while irrigation remains a critical livelihood anchor, the schemes operate within a complex environment shaped by limited access to services, entrenched gender inequalities, weak governance, cultural norms, climate vulnerability and poor infrastructure. Addressing these systemic constraints through the ESMP

will be essential to achieving sustainable, inclusive and climate-resilient development outcomes.

Stakeholder Consultations

Extensive consultations were conducted among stakeholders, including farmers, community leaders, local authorities, and extension services. Key findings from these engagements highlighted pressing concerns and expectations across the schemes: 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 grievance processes. The stakeholder input is summarised in Table 1 below.

Table 1: Stakeholder Input Summary

Date of meeting	Irrigation Scheme	Key Issues and Needs
06/10/25 Morning	Chomutamba	<ul style="list-style-type: none"> ● Urgent need for solar-powered irrigation systems. ● Challenges with water shortages. ● Theft of irrigation equipment, i.e. need for improved security measures.
07/10/25 Afternoon	Chiwirirano	<ul style="list-style-type: none"> ● Necessity for modern irrigation equipment. ● Establishment of boundary fences for protection. ● Requirement for reliable power sources. ● Concerns over deteriorating road conditions. ● Rise of social issues among youths.
07/10/25 Morning	Takavinga	<ul style="list-style-type: none"> ● Focus on the rehabilitation of feeder roads. ● Introduction of solar-powered irrigation systems. ● Need for boundary fences to protect crops from wildlife. ● Demand for enhanced market access.
06/10/0 Afternoon	Shamrock B	<ul style="list-style-type: none"> ● Inadequacy of existing irrigation pumps for 33-hectare area.

Date of meeting	Irrigation Scheme	Key Issues and Needs
		<ul style="list-style-type: none"> • Dissatisfaction with current irrigation infrastructure. • Increased incidents of social dysfunction. • Need for community training programs.
07/10/25 Afternoon	Seke Sanyati	<ul style="list-style-type: none"> • Urgent need for project commencement • Importance of utilizing previously unexploited land • Advocacy for equitable opportunities for women and youth • Support for innovative irrigation technologies
06/10/25 Morning	Lazenby	<ul style="list-style-type: none"> • Ongoing delays in project funding and infrastructure support • Request for investment in new irrigation technology • Need for measures to address deforestation and climate change effects

Summary of Major Positive Impacts

The anticipated positive outcomes of the RACP include:

- Increased water security and agricultural outputs through the introduction of modern irrigation infrastructure and solar-powered systems.
- Enhanced crop yields, with expectations of reaching yields between three and five tonnes per hectare, significantly improving farmer incomes.
- Strengthened resilience against climate-induced stresses, such as drought and floods, supported by improved water management practices and early warning systems.
- Promotion of biodiversity through sustainable land management, including afforestation and restoration of natural habitats.
- Incremental increases in gender equality and youth inclusion through targeted training programs and institutional support.
- Adverse Environmental and Social Impacts
- The project acknowledges several potential adverse impacts, such as:

- Temporary disturbances to local ecosystems during construction activities.
- Increased risks of soil erosion and sedimentation, particularly in sensitive catchment areas.
- Possible conflicts over water governance, particularly given existing local tensions regarding resource allocation.

These impacts are deemed manageable and reversible through the implementation of targeted mitigation measures outlined in the ESMP, including consistent monitoring and adaptive management strategies (See Table 2 and Table 3).

Summary of Impacts and Mitigation Measures

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

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

Table 3: Summary of Biophysical and Socio-Economic Impacts

IMPACTS	Mitigation measures	Risk levels
1. Soil erosion affecting 30–45 ha during construction.	Erosion control through terracing, stone bunds, vegetative cover, and proper drainage systems.	Moderate–High.
2. Water abstraction pressures of 0.5–1.2 ML/day per scheme.	Water efficiency measures such as canal lining, abstraction monitoring, and leak detection.	Moderate.
3. Temporary vegetation loss covering 5–12 ha.	Reforestation and biodiversity protection, including planting of 660,000 trees and avoidance of sensitive habitats.	Moderate.
4. Temporary disturbance to common flora and fauna species.	Comprehensive OHS protocols including PPE provision, contractor safety files, emergency response plans, and hazard signage.	Low–Moderate.
5. Occupational health and safety risks associated with construction activities.	Social safeguards measures including Codes of Conduct, worker screening, GBV/SEA training, and strengthening of local oversight structures.	High.
6. Waste generation of 10–20 tons of rubble and scrap material per scheme.	Waste management strategies including recycling of aluminium pipes and safe disposal of hazardous waste.	Moderate.
7. GBV/SEA risks and labour-related social conflict.	Capacity-building programmes on OHS, governance, integrated pest management (IPM), and climate-smart agriculture.	Moderate.
8. Potential increases in disease vectors due to stagnant water.	Erosion control through terracing, stone bunds, vegetative cover, and proper drainage systems.	Moderate.

Cost of Mitigation Measures

The ESMP includes a detailed cost matrix. Below is an estimate ESMP cost for the mitigation measures (see Table 4 and Table 5).

Table 4: ESMP Cost Categories and Estimates

Category	Cost Estimate (USD)
Environmental Mitigation	60,000.00
Social Inclusion and Safeguards	35,000.00
Climate Adaptation and Integrated Pest Management (IPM)	20,000.00
Grievance Management and Awareness	10,000.00
Health and Safety Systems	18,000.00
Monitoring and Independent Audits	30,000.00
Capacity Building for Farmers, IMCs, and District Teams	15,000.00
Total ESMP Cost	188,000.00

Table 5: Summary Matrix

Code	Impact	Mitigation Measures	Deadline	Cost (usd)	KPI	Implementation Responsibility	Monitoring / Oversight
ESMP-01	Vegetation loss, soil erosion, habitat disturbance	Controlled clearing, re-vegetation, erosion controls	Construction completion	13,000	rehabilitation; no new gullies	Contractor; PIU Environment	EMA; RDC; PIU
ESMP-02	Water pollution & sedimentation	Bunded fuel storage, chemical handling controls	Continuous	8,500	Zero spills; clean water	Contractor; IMC; Agritex	EMA; ZINWA; PIU
ESMP-03	Dust & air emissions	Watering roads; speed limits	Construction phase	5,000	Reduced dust complaints	Contractor	RDC; PIU
ESMP-04	Waste generation	Segregated waste management & safe disposal	Weekly	4,250	Functional waste system	Contractor; IMC	RDC; EMA
ESMP-05	Worker & community safety risks	PPE, signage, traffic control, toolbox talks	Daily	15,000	Zero accidents	Contractor; Safety Officer	Min. Labour; PIU
ESMP-06	Social conflict; exclusion of vulnerable groups	Governance training; inclusion policies	Continuous	7,000	Inclusive leadership; fewer conflicts	IMC; PIU Social	PIU; Agritex
ESMP-07	GBV/SEA/SH risks	Codes of conduct; reporting systems; awareness	Continuous	5,750	Reported cases resolved	Contractor; IMC	PIU Social; MoPSLSW
ESMP-08	Theft & vandalism of assets	Fencing; locking pump houses; community policing	Continuous	15,500	Reduced theft cases	IMC; Scheme	ZRP; PIU
ESMP-09	Cultural heritage disturbance	Chance-find procedures	As required	2,000	Proper reporting	Contractor	NMMZ; PIU
ESMP-10	Climate risks (drought, flooding)	Drainage maintenance; drought-tolerant crops	Seasonal	10,000	Yield stability	IMC; Agritex	PIU Climate; EMA

These costs support monthly site inspections and quarterly joint reviews involving EMA, ZINWA, AGRITEX, RDCs and the 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 RACP is strategically set to deliver essential socio-economic benefits while adhering to stringent environmental and social standards. With a comprehensive monitoring framework, robust stakeholder engagement, and clear implementation responsibilities, the project is well-prepared for effective execution. By fostering resilience in these irrigation schemes, the RACP presents a replicable model for sustainable agricultural development in Zimbabwe, contributing to enhanced food security and improved livelihoods across vulnerable communities.

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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
PwD	People with Disability
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
VBU s	Village Business Units
WEEE	Waste Electrical and Electronic Equipment
ZINWA	Zimbabwe National Water Authority

1.0 INTRODUCTION

1.1 Proponent Details

The Ministry of Lands, Agriculture, Fisheries, Water, and Rural Development (MLAFWRD) of the Government of Zimbabwe is in charge of the Resilience Agriculture Cluster Project (RACP). According to the Agricultural Sector Coordination Act and other relevant laws, the Ministry is formally tasked with supervising the creation of policies, their execution, and the oversight of agricultural initiatives across the country. It performs under the direction of the Civil Service Commission and is officially registered as a government line ministry. The Government Gazette outlines its statutory duties. 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 counterpart contributions from the Government of Zimbabwe. 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 setting up RACP within the Ministry's institutional framework and linking it to national and district-level actors, the project will drive in accountability, sustainability, and inclusive participation across all 18 target districts spanning the Gwayi, Sanyati, Manyame and Mazowe catchments.

1.2 Background

Zimbabwe's agricultural sector is the backbone of the economy, employing over 60% of the population and contributing significantly to food security and livelihoods. However, it remains highly vulnerable to climate change, recurrent droughts, erratic rainfall, and land degradation. Over the past two decades, rural households have faced worsening poverty and food insecurity, exacerbated by weak infrastructure, underperforming irrigation systems, and limited access to markets. 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 RACP to address these systemic challenges. The project builds on the experiences of the Smallholder Agriculture Cluster Project (SACP), which piloted climate-smart interventions, market linkages, and inclusive governance structures. RACP takes this approach further by scaling up investments in climate-proof infrastructure, 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, Mashonaland Central, and Mashonaland East, covering 18 priority districts spread across the Gwayi, Sanyati, Manyame, and Mazowe catchments. These catchments were chosen because they combine high climate vulnerability with agricultural potential, but remain underserved in terms of 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 rain-fed agriculture. The overarching goal of RACP is to enhance climate resilience, agricultural productivity, and inclusive rural development. Specifically, the project aims to:

- Improve water availability and irrigation efficiency through rehabilitation of schemes, water harvesting, and solar-powered systems.
- Strengthen agricultural value chains by upgrading feeder roads, building markets, and establishing post-harvest facilities with cold storage.
- Promote sustainable catchment and land management through afforestation, gully reclamation, and soil conservation measures.
- 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 programs, and rural enterprises.

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, NGOs, 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). By investing in resilient agriculture, the project supports Zimbabwe's ambition to achieve middle-income status by 2030, as outlined in Vision 2030.

To improve and expand climate-friendly farming for small farmers, the Zimbabwean Government, through the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD), started the Resilience Agriculture Cluster Project (RACP) to address issues like climate change, land damage, and poor irrigation systems in specific irrigation schemes, namely, Chomotanda, Lazenby, Shamrock, Seke Sanyati, Chiwirirano and Takawinga in Mashonaland West province. 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]. The Ministry has commissioned the Scientific and Industrial Research and Development Centre (SIRDC) through its Environmental Science Institute (ESI) to undertake the required Environmental 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 Management Plan (EMP) 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 EMP establishes the baseline conditions of the 18 target districts, 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], the African Development Bank's Integrated Safeguards System (2023) and IFAD's Social, Environmental and Climate Assessment Procedures (2021), the EMP ensures statutory and development-partner compliance. It sets out mitigation measures, institutional arrangements, monitoring indicators and capacity-building provisions tailored to the biophysical, socio-economic and cultural context of the four catchments.

Beyond compliance, the EMP 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 EMP 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.

1.4 Geographic Scope

The Resilience Agriculture Cluster Project (RACP) will be implemented across five provinces of Zimbabwe, Matabeleland North, Midlands, Mashonaland West, Mashonaland Central and Mashonaland East, covering 18 climate-vulnerable districts distributed across four major water catchments: Gwayi, Sanyati, Manyame and Mazowe. The Mashonaland West projects are found in Zvimba, Mhondoro-Ngezi, Chegutu and Sanyati Districts (see Figure 1).

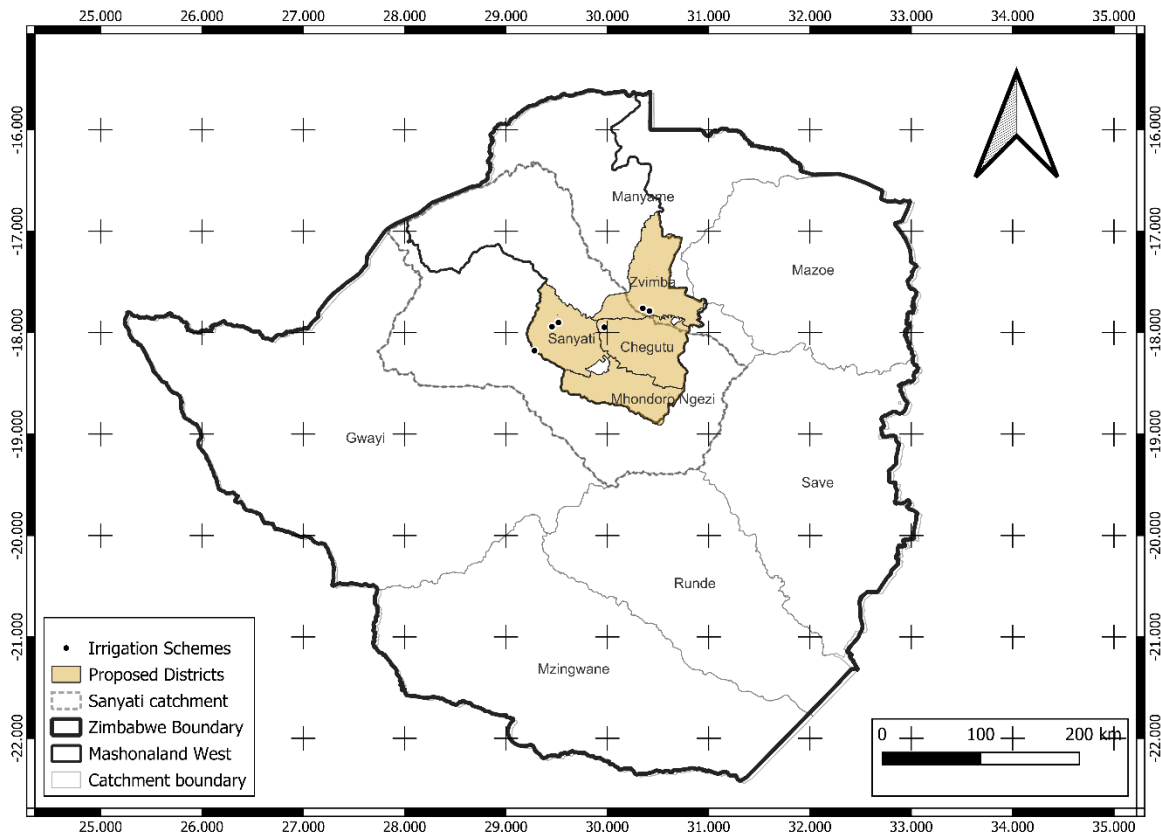


Figure 1: Location Map

These districts were selected on the basis of 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. Mashonaland West Province districts to be covered include Zvimba, Mhondoro-Ngezi, Chegut and Sanyati; a list of some of the proposed irrigation schemes earmarked for resuscitation is given in Table 6. Collectively, these districts are home to about people, the majority of whom are rural smallholder farmers who are dependent on mixed crop–livestock systems. It anticipated that the RACP will extend to two more districts, Muzarambani and Rushinga, upon approval by relevant local leadership and administration.

The catchments represent distinct biophysical settings. Sanyati 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 Mashonaland West. It anticipated that the RACP will extend to Mhondoro-Ngezi district, upon approval by relevant local leadership and administration.

Table 6: Coordinates for the Project Location

District	Location	Coordinates – Grid Reference
Zvimba	Chomotamba (Figure 2)	17°45'35.36"S and 30°21'1.49"E.
	Lazenby (Figure 3)	17°47'9.60"S and 30°25'1.97"E.
Chegutu	Shamrock B (Figure 4)	17°56'47.48"S and 29°58'9.90"E.
Sanyati	Seke Sanyati (Figure 5)	17°56'28.46"S and 29°27'15.58"E.
	Chiwirirano (Figure 6)	18°10'39.17"S and 29°16'50.44"E.
	Takavinga (Figure 7)	17°53'58.52"S and 29°31'2.28"E.

1.5 Project Justification

Zimbabwe’s agricultural sector underpins rural livelihoods and national food security but remains highly vulnerable to climate change, land degradation, and underperforming infrastructure. In the three target districts (Zvimba, Chegutu and Sanyati) spanning the Sanyati, catchment, smallholder farmers face declining productivity due to erratic rainfall, recurrent droughts, soil erosion and limited access to irrigation. Inadequate feeder roads, insufficient post-harvest facilities and weak market linkages further constrain rural incomes, while gender and youth disparities persist in access to resources and decision-making. Without targeted intervention, these vulnerabilities will continue to erode livelihoods, deepen poverty and accelerate environmental degradation.

The Resilience Agriculture Cluster Project (RACP) has been formulated to address these systemic challenges by combining climate-resilient infrastructure with inclusive institutional and market development. By rehabilitating irrigation schemes, improving water harvesting and catchment restoration, and establishing market and post-harvest infrastructure, the project directly responds to the urgent need for climate-proofed agricultural production. Complementary investments in early warning systems, weather-index insurance, and capacity building will strengthen community preparedness and institutional governance, ensuring that the physical assets created are effectively managed and equitably utilised.

The project is consistent with the Government of Zimbabwe’s Vision 2030 and National Development Strategy 1, as well as the AfDB Climate and Green Growth Framework Strategy and Policy and IFAD’s SECAP guidelines. It builds on lessons from the Smallholder Agriculture Cluster Project, scaling up successful models of climate-smart agriculture and inclusive value chain development. By integrating environmental, social and economic objectives, RACP will not only reduce the vulnerability of smallholder farmers but also

generate co-benefits such as ecosystem restoration, improved nutrition, and greater participation of women and youth in rural economies.

In this context, the project is justified as a necessary, timely and strategic intervention to reverse environmental degradation, strengthen resilience, and unlock the productive potential of Zimbabwe’s smallholder sector in a way that is environmentally sustainable, socially equitable and economically viable.

2.0 Overview

RACP represents a strategic investment in climate-proofed agricultural development across Zimbabwe’s most vulnerable yet agriculturally significant districts. Designed as a scale-up of the Smallholder Agriculture Cluster Project, it combines infrastructure rehabilitation, catchment restoration, and inclusive value chain development to transform smallholder farming into a more productive, resilient, and market-oriented sector.

2.1 Irrigation and Water Systems

RACP will rehabilitate and modernise approximately 258 hectares of irrigation schemes (see Table 7), including replacement of aged pumps, canal lining, and improved on-farm distribution systems to reduce water losses and improve application efficiency. This will be complemented by the installation of 100 solar-powered Village and School Business Units (VBUs/SBUs) to provide decentralised water and energy for irrigation, agro-processing, and small rural enterprises. At the household and community level, the project will construct rainwater harvesting systems (tanks, rooftop collection, and infiltration pits) and develop road-water harvesting ponds to intercept and store runoff, thereby reducing erosion and enhancing water security even in semi-arid areas.

Table 7: Proposed Irrigation Schemes and Hectares covered

Province	District	Matched Irrigation Scheme (from SACP RPA)	Hectares
Mashonaland West (Sanyati Catchment)	Zvimba	1. Chomutamba Irrigation Scheme.	25
		2. Lazenby irrigation Scheme.	40
	Chegutu	3. Shamrock B2 Irrigation Scheme	32
	Sanyati	4. Seke Sanyati Irrigation Scheme	41
		5. Chiwirirano Irrigation Scheme	100
		6. Takavinga Irrigation Scheme	15

Facilities at the Chomutamba Irrigation Scheme

The Chomutamba irrigation scheme was established in 2002 and is approximately 70km from the provincial centre in Chinhoyi. The scheme uses semi portable sprinkler irrigation system which lies on the 25 ha field and serves 46 beneficiaries. Water is drawn from the Manyame/Hunyani River; and there is adequate water supply for irrigation. The Chomutamba Irrigation Scheme features a robust pumping system that consists of an end suction type centrifugal pump mounted on a portable base. This pump effectively discharges water through a 6-inch flanged HDPE pipe connected to a 200mm PVC underground mainline, powered by a 100 HP three-phase electric motor (see Plate 1). The irrigation infrastructure relies on a semi-portable sprinkler system covering 25 hectares, utilising a network of underground PVC pipes with 3-inch hydrants, although some hydrants have worn-out tops that necessitate replacement. The electrical system is supported by a 100KVa, 11kV/420V transformer that provides power to the irrigation operations. Auxiliary infrastructure includes three double Blair toilets, which are in fair condition, but there is a pressing need for portable water facilities, as farmers currently depend on river water. The perimeter fence is installed but requires a fire guard to protect against potential veld fires.



Plate 1: Facilities at Chomutamba Irrigation Scheme

Facilities at Seke Sanyati Irrigation Scheme

The Seke Sanyati Irrigation Scheme sources water from the Seke-Sanyati dam, which holds a capacity of 3380 ML and provides enough resources for year-round irrigation. The irrigation setup includes various blocks, with Block B being the only one currently functional, featuring basic infrastructure (see Plate 2). Sensitive to community needs, the scheme relies on an outlet valve to channel water from the dam through a concrete-lined canal to the fields, although this system is compromised by leaks that necessitate immediate repairs. Current auxiliary facilities lack sufficient WASH amenities, and farmers depend on a nearby borehole for portable water. There's a notable absence of well-maintained perimeter fencing, which poses a risk of crop damage from both livestock and wildlife. The last-mile access road, critical for connecting the scheme to markets and resources, demands considerable attention to ensure it remains navigable throughout the year.



Plate 2: Facilities at Seke Sanyati Irrigation Scheme

Facilities at the Shamrock Irrigation scheme

At the Shamrock Irrigation Scheme, water is sourced from the Mupfure River via the Johannadale Weir, designed for irrigation purposes. However, the weir can no longer store adequate water for winter irrigation due to expanding cracks, which risk the possible collapse of the structure. Such a collapse would jeopardize the viability of the four schemes that depend on it.

The scheme employs a semi-portable sprinkler system across its 32 hectares, utilizing a network of 3-inch hydrants and underground PVC pipes. While the conveyance line remains intact, several components including hydrant tops, valve control elbows, sprinkler heads, riser assemblies, and plain pipes require urgent replacement or repair to restore full functionality. Water is pumped using an end suction centrifugal unit mounted on a mobile base, with the installation powered by a 100 kVA, 11kV/420V transformer connected to the national grid (see Plate 3). This transformer is strategically located near the abstraction point (17°56'18.51"S, 29°58'18.67"E) to minimize voltage drop.

It is recommended to install a security fence around the pump station and to upgrade the electrical system from a Star-Delta starter to a Variable Speed Drive (VSD) to enhance energy efficiency and prolong motor life.

Auxiliary infrastructure is lacking, as there are no portable water facilities, forcing farmers to drink from the dam. Additionally, a complete perimeter fence is needed to protect against wildlife and unauthorized access, and the feeder road requires maintenance. Illegal gold panning and mining pose further risks, including chemical pollution of the river, which affects irrigation, domestic water supplies, wildlife, and the entire aquatic ecosystem.



Plate 3: Facilities at Shamrock Irrigation Scheme and Johannadale Dam

Facilities at Lazenby Irrigation Scheme

The Lazenby Irrigation Scheme sources water from the Lazenby/Malaba Dam, which has a capacity of 3.0 million cubic meters and operates under a valid water agreement with ZINWA in the Manyame catchment area, supplying both irrigation and domestic water to surrounding farms. The irrigation infrastructure includes an end-suction centrifugal pump mounted on a fixed base, discharging water through a 6-inch flanged steel pipe connected to a 300mm AC class 24 underground mainline. This system is powered by a 100 HP three-phase electric motor, which requires maintenance. The scheme is energized by a 315KVa, 11kV/420V transformer

located on-site to minimize voltage drop, with security measures recommended for protection (see Plate 4). Water distribution is conducted via a semi-portable sprinkler system covering 40 hectares, featuring 3-inch hydrants connected to underground PVC pipes, although many hydrants are worn out and require urgent replacement. Additionally, concrete-lined open canals and piped systems enhance water application across the plots.

While there is adequate water for irrigation throughout the year, stream bank cultivation practiced by upstream non-scheme members causes siltation of the water source. The dam wall requires maintenance to clear vegetative growth, and it is recommended to install the transformer closer to the pumping point to reduce voltage drop. A palisade or security fence is necessary at the pump station to prevent unauthorized access. The access road, approximately 7 kilometers long, connects the irrigation scheme to main transport routes but requires significant rehabilitation to ensure it is navigable throughout the year.

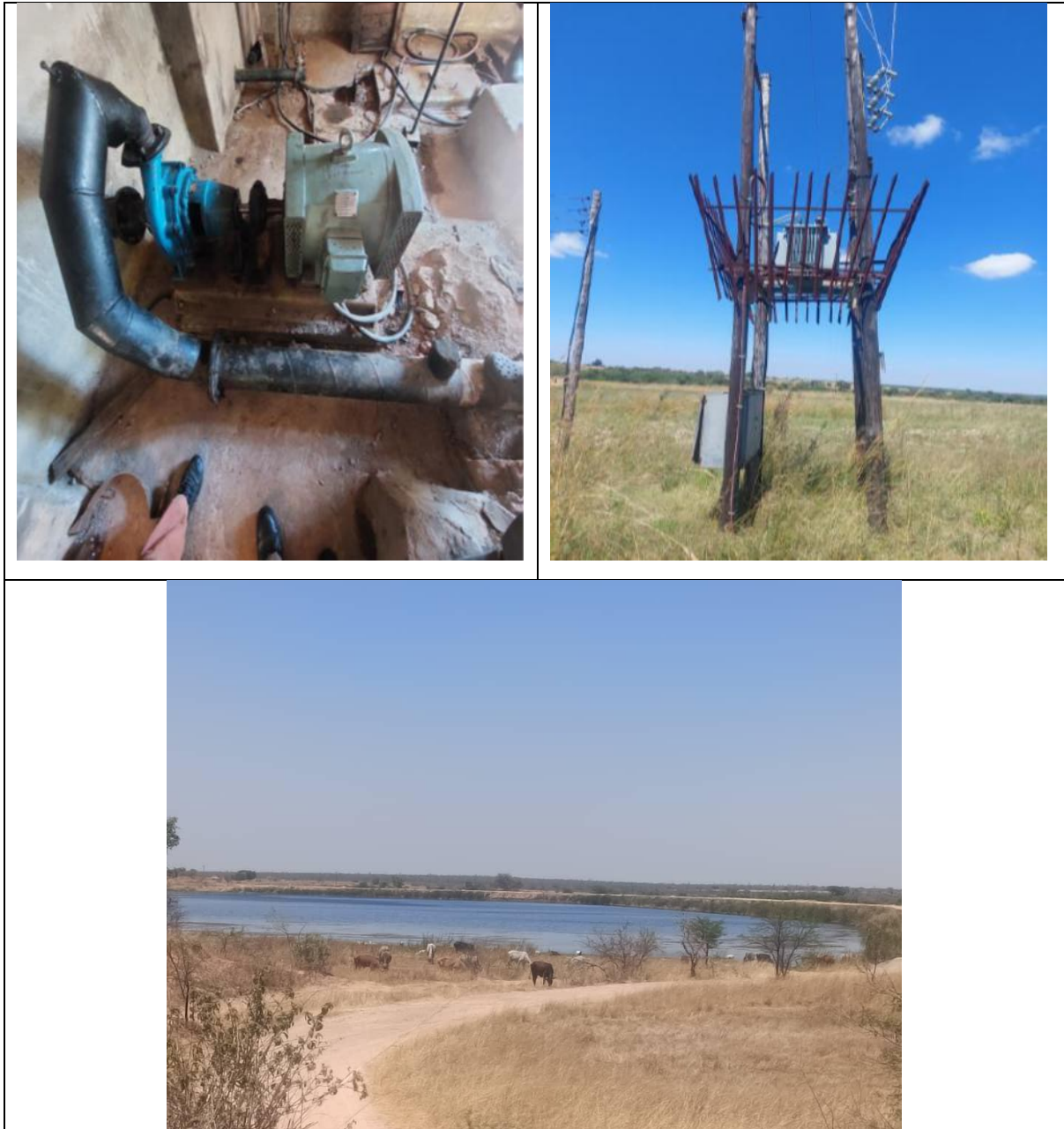


Plate 4: Facilities at Lazenby Irrigation Scheme and Lazenby/Malaba Dam

Facilities at Chiwirirano Irrigation Scheme

In the Chiwirirano Irrigation Scheme, water is drawn from a low-wall weir in the Munyati River, complemented by releases from upstream dams. The scheme features a dual pumping setup: a fixed pump house equipped with three 50 hp centrifugal pumps and a portable pump unit that enhances operational flexibility. However, the pump house has been abandoned by farmers due to flooding risks during high flows although it can be rehabilitated and with potential to house three pump sets discharging into one common mainline. The conveyance system includes semi-portable irrigation infrastructure across 20 hectares, but both the center pivot and semi-portable systems have significant operational gaps that must be addressed.

There are no toilet facilities, necessitating urgent development of proper WASH facilities, and the perimeter fencing is not adequately maintained. Furthermore, a reliable access road is crucial for seamless operations.

Summer flows are significant such that a large weir would have held adequate irrigation water for one winter cropping. The schemes also embed a centre pivot and the hydrants are worn-out and require major servicing (see Plate 5). New infield irrigation equipment and accessories are needed on the scheme for it to be operational.



Plate 5: Facilities at Chiwirirano Irrigation Scheme

Facilities at Takavinga Irrigation scheme

At the Takavinga Irrigation Scheme, water is sourced from the Dubugwane Dam, a critical resource for the community. It employs two pumping systems: an initially established fixed pump house capable of housing up to three pump sets, and a newer portable pump unit that can be repositioned to adapt to flood levels (see Plate 6). However, the system faces challenges, as the existing pumps and equipment require maintenance and servicing. The irrigation infrastructure includes a semi-portable sprinkler system and a center pivot system that is currently non-functional.

Additionally, the scheme lacks functional toilets, prompting a recommendation for drilling a borehole with a solar-powered pump to provide clean water. Access to the scheme is hindered by an approximately 8-kilometer last-mile road, which needs significant rehabilitation.

Takavinga Irrigation Scheme encounters multiple infrastructure challenges, including a silted and limited-capacity storage dam near the spillway, a worn-out intake system requiring redesign, and a damaged perimeter fence that needs repair and extension to cover an additional 7 hectares. There is also an absence of clean drinking water and sanitation facilities,

necessitating the drilling of at least one borehole (ideally two or three) and the construction of two double-compartment toilets. Furthermore, outdated canals, limited siphons, and poor road access require rehabilitation and modernization to enhance water use efficiency, operational reliability, and health and safety conditions



Plate 6: Facilities at Takavinga Irrigation Scheme

Specific rehabilitation activities, mandated by the ESMP, will address the site-specific deficiencies identified by the RPAs. This includes:

RACP guarantees that engineering improvements, social inclusion initiatives, and environmental protections are sensitive to local situations while implementing consistent technical standards across the province by firmly establishing its rehabilitation designs in these scheme-specific realities. The strategy incorporates sustainability elements like the use of renewable energy, better catchment and landscape restoration, gender-sensitive governance structures, and the promotion of climate-smart technologies that are useful for smallholders in Mashonaland West, in addition to addressing urgent infrastructure gaps.

2.1.2 Market and Post-Harvest Infrastructure

To strengthen market access and reduce post-harvest losses, RACP will upgrade feeder roads to all-weather standard, easing the movement of inputs and produce between farms and markets for example the Lazenby Irrigation scheme needs rehabilitation of access and infield roads. It will construct mobile market sheds strategically located within the target districts and establish post-harvest centres equipped with solar-powered cold storage facilities to extend the shelf life of perishable produce, improve food quality, and reduce spoilage (Lazenby has a large warehouse for input and crop storage and Chiwirirano has a pack shed and storeroom). The six Mashonaland West irrigation schemes supply largely cereals (maize, wheat, small grains) and

horticultural crops into short, district-based value chains. In Zvimba District, farmers at Chomutamba and Lazenby irrigate field crops and vegetables that are bulked at scheme centres, then moved by local transporters and traders to nearby growth points and urban markets such as Chinhoyi and Harare. In Chegutu District, produce from Shamrock B2 follows a similar route, with aggregation at the scheme and movement along the Chegutu–Harare corridor, linking smallholders to millers, agro-dealers and informal urban markets.

In Sanyati District, irrigators at Seke Sanyati, Chiwirirano and Takavinga mainly supply grain, oilseeds and vegetables to local business centres and Kadoma/Harare through itinerant traders and a few contract buyers. Across all three districts, farmers report weak and volatile markets due to poor feeder roads, limited cold-chain facilities and the dominance of middlemen; collective action through IMCs/VBUs, formal contracts with off-takers and better market information are therefore highlighted in the RPA/ESMP as key strategies to strengthen these supply chains and improve price realisation for scheme members.

2.1.3 Catchment and Landscape Restoration

The current catchment and landscape conditions in the districts of Zvimba, Chegutu and Sanyati show varying levels of land degradation, changes in hydrology and pressure on sensitive habitats within the defined Area of Influence for each irrigation scheme. In Zvimba District, the Area of Influence for Chomutamba and Lazenby Irrigation Schemes includes communal grazing lands, cultivated fields and small wetland areas connected to local streams. Hydrological assessments show reduced baseflows, increased sedimentation and declining ground cover, with Lazenby experiencing some minor but persistent environmental challenges. In Chegutu District, the Area of Influence for the Shamrock B2 scheme covers mixed land uses that include crop fields, small-scale mining footprints and riparian zones, where sensitive habitats are increasingly disturbed and natural drainage patterns are being altered by catchment runoff. In Sanyati District, the Areas of Influence for Seke Sanyati, Chiwirirano and Takavinga Irrigation Schemes include dryland agriculture zones, dambos and drainage lines that supply scheme water sources. These areas are affected by streambank cultivation, fuelwood harvesting and reduced vegetation, which in turn affect infiltration and flow regulation.

To address these challenges, the project will implement extensive catchment and landscape restoration across all six irrigation schemes, covering several hectares of degraded land. Planned interventions include gully reclamation, the installation of stone bunds, the establishment of vegetative filter strips, improved grazing management and the planting of

multipurpose indigenous trees to rehabilitate degraded ecosystems. The environmental and social management requirements call for the development of detailed, scheme-specific Micro Catchment Management Plans that include clear land-use controls, hydrological protection measures and actions to safeguard sensitive habitats. These plans will regulate upstream activities such as streambank farming and potential mining near the Shamrock B2, Chiwirirano, Seke Sanyati and Takavinga water sources, and will ensure that silt trapping structures and other physical protection measures are installed. The overall intention is to stabilise soils, restore natural hydrological processes and protect ecosystem services that are essential for sustaining irrigation and water supply systems.

2.1.4 Climate Information and Early Warning Systems

The project will invest in automated weather stations linked to an ICT-based platform to deliver timely and location-specific climate information, including rainfall forecasts, pest and disease alerts, and flood warnings. The platform will be directly linked to extension services, enabling more informed and climate-smart decision-making by farmers. Additionally, it will support the piloting of weather-index insurance schemes, offering a critical safety net against crop losses resulting from extreme weather events such as droughts and floods. By enhancing access to real-time climate data and risk transfer mechanisms, the project aims to reduce vulnerability, improve productivity, and promote long-term resilience in smallholder farming systems. This approach reflects international best practice in climate risk management, where digital climate advisory tools and index-based insurance are increasingly recognised as effective adaptation strategies for smallholder agriculture (Hellmuth et al., 2009).

2.1.5 Capacity Building and Social Inclusion

RACP will strengthen local institutions—including water user associations, farmer organisations, and catchment councils—through structured training programmes in climate-smart agriculture, governance, financial management, and operation and maintenance of infrastructure. Gender equality, youth participation, and social inclusion are mainstreamed, with targets of at least 50% women and 30% youth in governance structures and training cohorts. Specific modules on labour standards, occupational health and safety, and pest management will ensure that social safeguards are embedded in daily operations. The development objective is to increase equitable smallholder participation in market oriented and climate smart value chains and identify the most effective methods, timing, and structures through which to share project information, and to ensure regular, accessible, transparent, and appropriate consultation. These components are designed to embed social safeguards into

institutional and operational practices, thereby ensuring that sustainability, equity, and compliance are systematically reinforced in day-to-day activities.

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

- Climate-Smart Agriculture (CSA) & Conservation Agriculture (CA) (Seke-Sanyati, Chomutamba, Shamrock B2, Takavinga).
- Efficient Irrigation Scheduling & Water Use Efficiency (Chomutamba, Seke-Sanyati, Shamrock B2, Takavinga).
- Governance, Social Inclusion & Scheme Management (All schemes).
- Market Linkages & Agribusiness Skills (Lazenby, Chiwirirano, Seke-Sanyati, Takavinga).

2.1.6 Integration and Sustainability

These interventions have been designed as a coherent package, ensuring that physical investments are complemented by institutional support and social inclusion measures. This integrated approach will deliver immediate improvements in agricultural productivity, post-harvest handling, and market access, while also building long-term climate resilience, ecosystem health, and community well-being across the 4 target districts.

Across all six irrigation schemes, levels of integration and sustainability vary widely. Lazenby shows the strongest integration, with functional storage infrastructure, established market linkages, and coordinated production systems that support long-term sustainability, though aging irrigation equipment still presents risks. Chiwirirano also demonstrates high integration potential because of its pack shed, storeroom, and history of horticultural contracts; however, illegal mining and environmental degradation threaten the sustainability of its water source and infrastructure. Seke–Sanyati has moderate integration, combining irrigation with rainfed agriculture and conservation farming, but sustainability is undermined by upstream streambank cultivation, siltation risks, and severe canal leakages that reduce efficiency. Takavinga has limited integration due to incomplete infrastructure, weak markets, and environmental risks such as dam embankment damage and siltation, resulting in low sustainability unless major rehabilitation is done. Chomutamba struggles with low integration, as deteriorated infrastructure, weak market systems, and poor water management combine to reduce its long-term viability. Shamrock B2 has the weakest integration and sustainability, with severe catchment degradation from gold panning, deforestation, and erosion, alongside failing

irrigation equipment and poor market performance. Overall, sustainability across schemes is most constrained by environmental degradation, and aging or dysfunctional irrigation infrastructure, while stronger market linkages and better environmental stewardship substantially improve integration and long-term viability.

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.

Planning Phase

This phase entails detailed site identification, feasibility assessments and engineering designs for irrigation schemes, VBUs, water harvesting structures, feeder roads and market facilities. It also covers the preparation of Environmental and Social Impact Assessments (ESIAs) and site-specific Environmental and Social Management Plans (ESMPs) 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. In addition to confirming site selection, these consultations will guarantee that community viewpoints and local concerns are incorporated into the finished infrastructure plans.

Construction Phase

This phase includes civil works for irrigation scheme repair and improvement, solar-powered VBU and SBU installation, rainwater collection structure building, feeder road and market infrastructure upgrades, and more. It entails putting in place site-specific environmental mitigation strategies, including waste management, dust suppression, erosion control, and occupational health and safety procedures. This phase includes the construction of WASH facilities (potable water and ablution blocks) at schemes that lack them (e.g., Chiwirirano, Chomutamba Schamrock B2 and Takavinga). It also includes the immediate installation of security infrastructure (fencing, palisade cages) and the implementation of a site-specific Contractors will be observed to make sure that national environmental requirements and ESMP provisions are followed.

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. To guarantee prompt reactions to new hazards, changing community demands, and chances to scale best practices, an adaptive management method will be used.

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 builds directly on lessons from the SACP by using scheme-specific layouts and operational data to guide climate-smart investments across Zimbabwe's most vulnerable districts. Rather than treating irrigation schemes as isolated works, RACP applies a cluster approach that aligns each site with its catchment, market linkages and social context.

The detailed maps of each scheme are shown in Figure 2 to Figure 7, which illustrate scheme settings. By drawing on these precedents, RACP tailors engineering designs, social inclusion measures and environmental safeguards to local conditions while applying uniform standards across all target provinces.

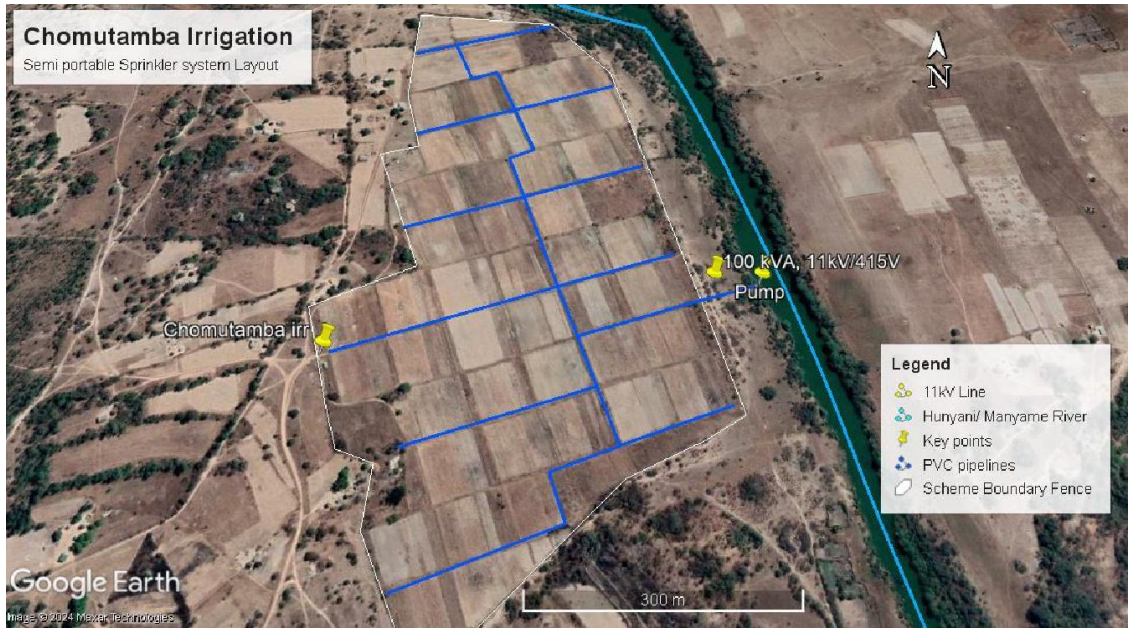


Figure 2: Location Chomutamba Irrigation Scheme

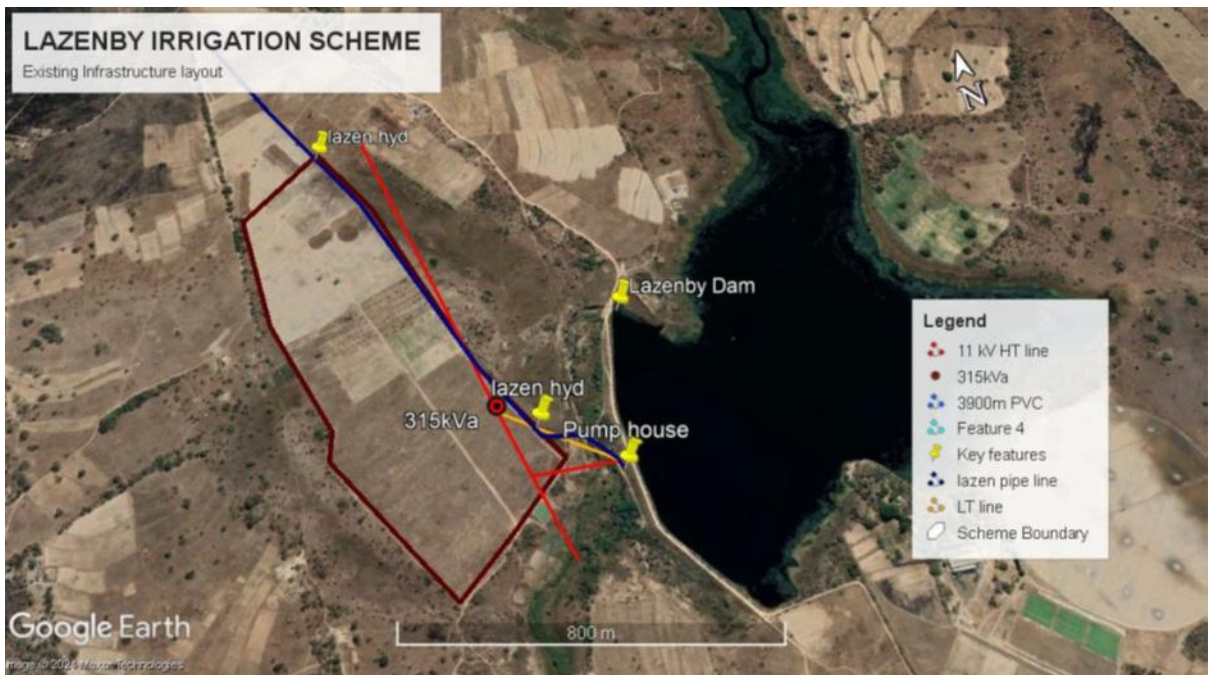


Figure 3: Location of Lazenby Irrigation Scheme

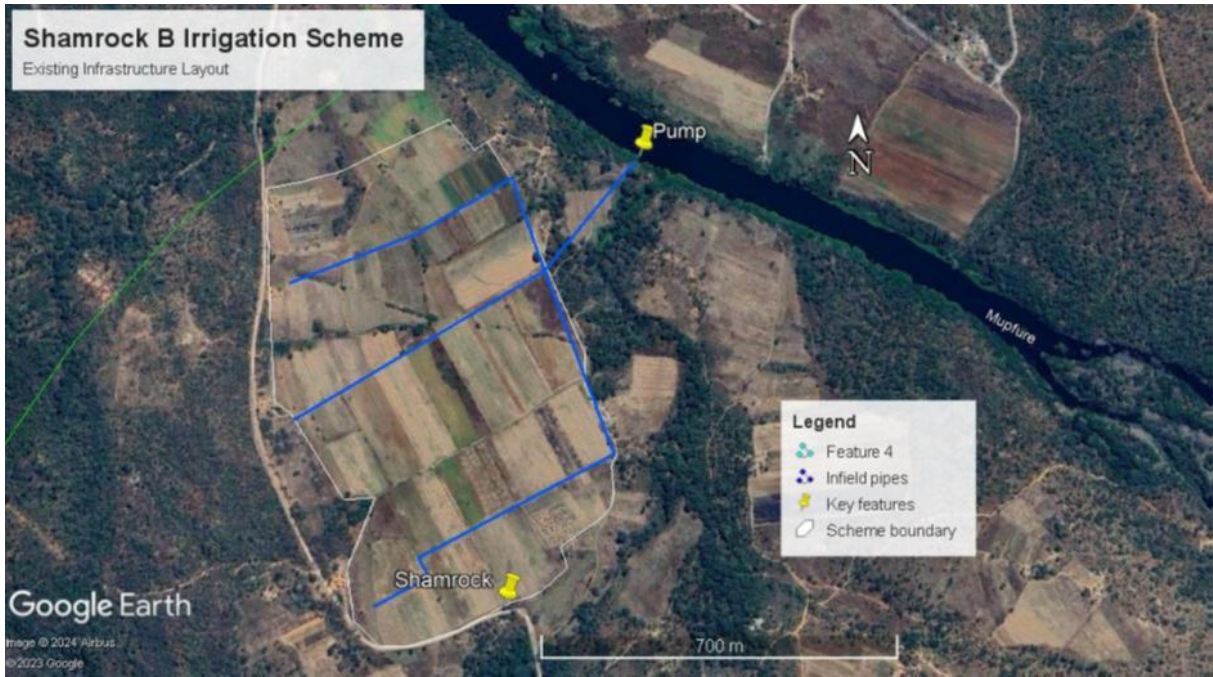


Figure 4: Location of Shamrock B Irrigation Scheme



Figure 5: Location of Seke Sanyati Irrigation Scheme

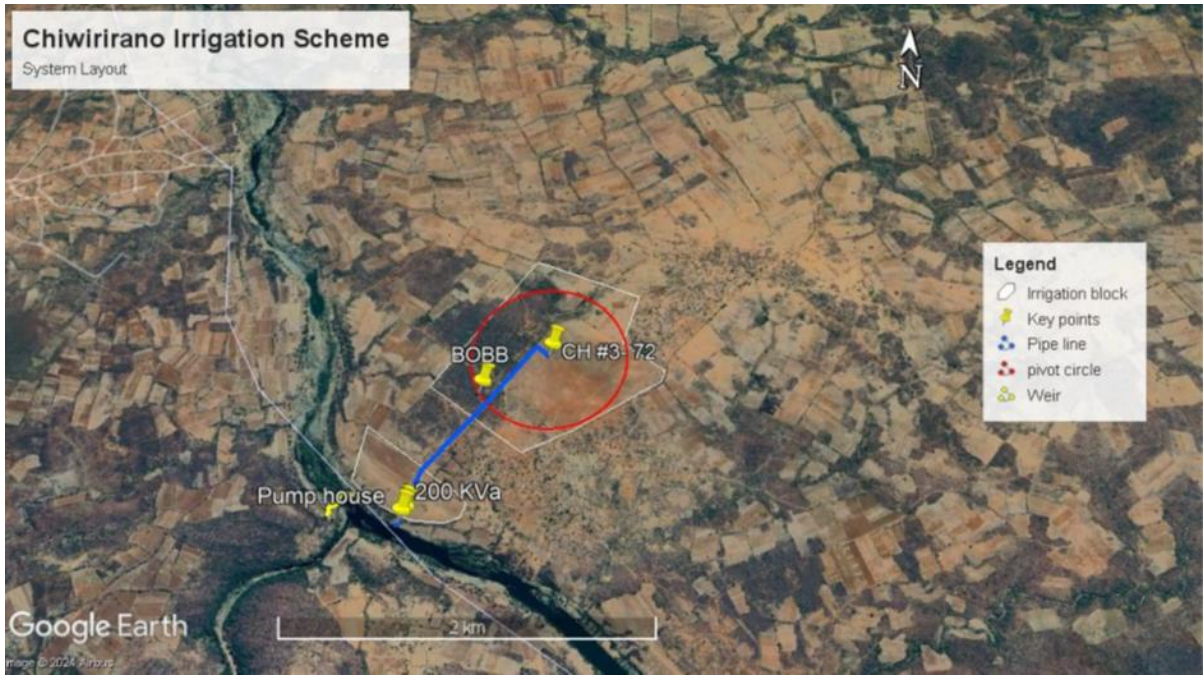


Figure 6: Location of Chiwirirano Irrigation Scheme



Figure 7: Location of Takavinga Irrigation Scheme

These districts (Table 7) are home to more than 700 thousand people, the majority of whom are rural smallholder farmers who are dependent on mixed crop–livestock systems. The catchments represent distinct biophysical settings. Sanyati covers the Munyati, Sebakwe, Ngezi and Mupfure sub-catchments, providing opportunities for irrigation and agro-industrial

linkages. Manyame includes the Upper, Middle and Lower sub-catchments feeding the capital's water supply and peri-urban horticultural belts. 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.

2.3 Management Systems

The RACP irrigation schemes will operate under integrated environmental and social management systems designed to ensure compliance with Zimbabwe's Environmental Management Act [Chapter 20:27], IFAD's Social, Environmental and Climate Assessment Procedures (2021) and the AfDB's Integrated Safeguards System (2023). Each Irrigation Management Committee (IMC) will implement site-specific protocols for waste management, emergency preparedness, and infrastructure maintenance, building on lessons from schemes assessed under the SACP RPAs (e.g., Seke Sanyati) where poor pump maintenance, leaking canals and inadequate sanitation facilities had already led to environmental risks.

2.3.1 Waste Management

All irrigation sites will develop and enforce a Waste Management Plan covering collection, segregation, temporary storage and safe disposal of domestic, agricultural and construction waste. Based on RPA findings (e.g. Shamrock B2), waste generated during rehabilitation and operation phases, including damaged pipes, concrete rubble, used oil and plastic irrigation equipment, will be minimised through reuse and recycling, with only non-recoverable waste transferred to EMA-approved facilities.

Climate-smart nutrient management will reduce open-field burning by composting or incorporating agricultural leftovers, such as crops and weeds, into soils. Chemical containers, transformer fluids, and spent oils will all be handled in accordance with hazardous waste regulations, which include sealed storage and transfer to authorised disposal companies. Workers' household waste (paper, plastics, and bottles) will be gathered in separate containers and delivered to waste disposal locations run by the local government. . The ESMP mandates Integrated Pest Management (IPM) techniques, which will reduce the volume of potentially hazardous chemical waste. Used oil, batteries, and chemical containers (pesticides, fertilisers) will be treated as hazardous waste

By taking these steps, RACP will make sure that waste produced during the phases of construction, rehabilitation, and operation is managed methodically, lowering the risk of pollution, promoting the circular economy, and upholding national environmental regulations as well as AfDB ISS and IFAD SECAP.

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

2.3.2 Emergency Preparedness

Each scheme will maintain a simple but functional Emergency Preparedness and Response Plan aligned to local district protocols. This will include training IMCs and farmers in safe shutdown procedures for pumping units, response to floods and storm damage, first-aid, and reporting of chemical or fuel spills. Based on RPA observations warning signage, muster points and community-level early warning channels (e.g. WhatsApp groups linked to the Zimbabwe Meteorological Services) will be established to enable rapid communication. These measures aim to enhance community resilience, minimise risk, and ensure swift, coordinated responses to emergencies. The integration of local knowledge and communication platforms in disaster preparedness has been shown to significantly improve response outcomes and reduce vulnerability (Twigg, 2015). The EPRP must detail procedures and manual for handling the risks.

- Proper pesticide storage & handling (IPM training needed in several schemes).
(Shamrock B2, Chiwirirano, Takavinga and Chomutamba schemes)
- Safe fuel storage for pumps (especially mobile pump systems like those at Chiwirirano).
- Use of protective clothing (PPE) during spraying.
- Avoiding contamination of water sources critical where environmental damage is already occurring.

- Electrical hazards from vandalised or exposed pump house wiring (Chiwirirano, Shamrock B2).
- Security Breach - The EPRP must include a protocol for the immediate reporting of infrastructure theft and vandalism (pipes, armoured cables, transformers) to the local authorities (Zimbabwe Republic Police and ZESA) to minimise downtime, focusing on high-risk schemes like
- Unsafe working environments due to dilapidated infrastructure (pipes, valves, canals deteriorated).
- No scheme currently has formal weather or early-warning systems, but all demonstrate strong need for climate risk preparedness, especially for floods, droughts, and storms
- Exposure to contaminated water sources caused by upstream activities such as mining and streambank cultivation (Shamrock B2, Chiwirirano, Seke–Sanyati).
- Road safety risks from poor access roads which affect emergency response (Chiwirirano, Takavinga, Chomutamba).
- Lack of WASH facilities (further compromising public health) in four schemes

2.3.3 Water Storage Operation and Management

In schemes where night-storage dams and reservoirs exist such as at Chomutamba management practices will prioritise routine desilting, vegetative stabilisation of embankments, fencing to restrict livestock access, and regular inspection of inlets and outlets to prevent blockages. Sustainable reservoir management practices, including sediment control and bank stabilisation, are well-recognised for their role in enhancing irrigation efficiency and mitigating environmental degradation (Morris & Fan, 1998). Collected sediments will be disposed of in designated spoil areas to prevent downstream turbidity and protect aquatic ecosystems. These measures are essential for maintaining water quality, reducing sedimentation impacts, and prolonging the operational life of water infrastructure.

2.3.4 Trail Waste Management

Maintenance activities such as canal clearing, pump servicing and on-farm works generate “trail waste” (vegetative debris, silt, small concrete pieces). These materials will be collected immediately and either reused (e.g. silt as bund reinforcement, plant matter as mulch) or safely removed to avoid blocking drains or contaminating waterways, a problem noted in Takavinga

RPA. The ESMP requires the immediate and safe removal of discarded infrastructure, concrete rubble from headworks upgrades, and illegal gold mining activities leading to pollution of the river.

2.3.5 Sewage Treatment and Disposal

All schemes must ensure sanitary facilities (e.g. Blair latrines, septic tanks) are functional and sited away from water sources, as several RPAs identified compromised toilets near reservoirs. In order to close these gaps, RACP will make sure that every program has long-lasting and secure sanitary facilities, including Blair latrines or septic tanks placed thoughtfully far from weirs, dams, and canals. Before infiltration, wastewater from ablution blocks if built will be treated on-site using compact package plants or lined soak pits. In accordance with EMA and Ministry of Health guidelines, routine inspections and desludging will be planned to avoid contaminating irrigation water sources. Regular inspection and desludging will be scheduled to prevent contamination of irrigation water.

2.3.6 Solid Waste Management

Separate from routine agricultural residues, solid waste such as packaging, empty chemical containers and household refuse will be managed under a “triple rinse, puncture and return” policy or disposed of through licensed recyclers. IMCs will set up clearly marked bins for plastics, metals and organic waste at scheme entry points and organise periodic clean-up campaigns with local authorities, building on good practice of composting and container return systems were piloted. Good Agricultural Practice (GAP) which include use of pesticide containers, plastic waste from irrigation schemes, residues from fertilisers, damaged irrigation accessories and other field waste, although burning crop residues is being practiced at (Shamrock) and brick pits and mining waste (Chiwirirano).

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 target provinces (see Table 8 and Table 9).

Table 8: Project Costs

Cost Component	Key Activities	Estimated Cost (USD)
Irrigation Infrastructure	Rehab of 1,780 ha irrigation schemes.	6,000,000
Solar-Powered VBUs/SBUs	100 village & school units.	3,428,194.00
Rainwater Harvesting Systems	1,000 household systems.	2,200,000.00
Road-Water Harvesting Ponds	36 ponds along feeder roads.	1,228,000.00
Feeder Road Upgrading	30 km all-weather standards.	12,500,000.00
Mobile Market Sheds	18 district-level markets.	8,000,000.00
Post-Harvest Centres	5 centres with solar cold rooms.	15,200,000.00
Catchment Restoration	2,000 ha rehabilitation works.	6,000,000.00
Tree Planting & Nurseries	5 million trees, 18 nurseries.	9,000,000.00
Weather Stations & ICT Platform	54 automated stations & early warning.	4,204,000.00
Capacity Building	Farmer & institutional training.	4,000,000.00
Gender & Youth Inclusion	Quotas, training & support.	1,200,000.00
Safeguards Implementation	ESMP, IPMP, LMP, OHS, monitoring.	1,300,000.00
Total		74,260,194.00

Table 9: Estimated Provincial Cost

Cost Component	Key Activities	Estimated Cost (USD)
Irrigation Infrastructure	Rehabilitation of irrigation systems	6,000,000.00
Pumping Units	Installation of standby pumping units	3,500,000.00
Water Supply Systems	Repair and maintenance of water supply pipelines	2,000,000.00
Infield Equipment	Replacement of worn-out infield equipment	1,500,000.00
Road Rehabilitation	Upgrading access roads to the schemes	1,200,000.00

Cost Component	Key Activities	Estimated Cost (USD)
Market Linkages	Establishing formal contracts with buyers	800,000.00
Capacity Building	Training programs for farmers	1,000,000.00
Water and Sanitation Facilities	Construction of boreholes and ablution blocks	1,500,000.00
Environmental Management	Implementing conservation practices	600,000.00
Total Estimated Cost		\$17,100,000.00

2.5 Project Alternatives

The **project alternatives** chapter is tailored to address the potential project implementation option for RACP Mashonaland West ESMP. It is anchored the community feasible choices for the irrigation rehabilitations across the 7 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 (e.g., Chiwirirano if it continues with outdated systems may lead to further declines attributed to neglect of infrastructure), 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 footprints; optimise alignments; repair/replace defective assets).
- B. Greenfield new schemes (new footprints and headworks).
- C. Partial re-routing/optimisation (e.g., re-site pump houses above flood risk; reroute leaking/undersized mainlines; avoid sensitive drains/slopes).
- D. Utilizing both surface water (from canals) and groundwater sources (boreholes) in a complementary manner (for example Chiwirirano could benefit from integrating a borehole system with existing canal irrigation)

Findings. In-place rehab minimises land take and avoids new critical habitat disturbance; addresses known defects (e.g., mainline leaks; undersized pumps; security fencing/cages; corrected armoured cable) with low incremental footprint and faster permitting. Partial re-routing where necessary (e.g., to avoid flood-prone crossings, unstable slopes; to allow HDPE/UPVC replacements) provides strong hydraulic and resilience gains with minor footprint changes.

Decision: Ideal choice is A, combined with targeted C (scheme-by-scheme optimisation). B rejected (higher E&S risk, costs, and delays).

2.5.4 Irrigation Technology Alternatives

Baseline issues: A number of irrigation schemes visited have undersized or failed pumps (Chomotamba/Takavinga/Shamrock), leaking/aged mainlines (Chiwirirano/Seke Sanyati/Lazenby), labour-intensive systems disadvantaging women/elderly (Chomotamba/), or pressure/coverage problems (Lazenby).

Option set.

1. Continue **portable/semi-portable sprinklers** (status quo at many sites).
2. **Drag-hose semi-portable** (lower pressure, reduced labour).
3. **Drip/micro-irrigation** (high efficiency; horticulture blocks).
4. **Fixed/automated (centre pivots / fixed sprinklers)** where terrain allows.
5. **Canal/open gravity** (low OPEX; high losses/siltation).

Assessment & selection (by site).

Chomotamba Irrigation Scheme: Continue Portable/Semi-Portable Sprinklers. This existing method allows for flexibility and can be easily moved or adjusted to meet the needs of different crops, particularly for horticultural production. Many of the existing pumps are outdated and inefficient. Replacement of pumps with newer, solar-powered models is needed.

Chiwirirano Irrigation Scheme: Drag-Hose Semi-Portable Irrigation - Utilizing drag-hose systems reduce the pressure required for operation and labor intensity, making it suitable for the large areas needing irrigation without overwhelming resources. existing irrigation setup is old, and many components frequently break down. Upgrading to more modern, robust equipment will enhance reliability.

Takavinga Irrigation Scheme: Drip/Micro-Irrigation Systems - High efficiency for water use, particularly effective for high-value horticultural crops. This system minimizes water waste and improves yield quality, vital for local market competitiveness. Current infrastructure for drip irrigation, needs repairs or replacements of damaged drip lines and connectors.

Shamrock B Irrigation Scheme: Fixed/Automated Irrigation Systems (Centre Pivots) - Where the terrain allows, installing fixed centre pivots can provide uniform irrigation, reduce labor requirements, and improve efficiency across large fields. This is especially beneficial for

managing larger cultivation areas. Upgrade existing gravity-fed irrigation systems to ensure they can efficiently cover the 33 hectares, including repairing any damaged channels.

Seke Sanyati Irrigation Scheme: Canal/Open Gravity Systems - While offering low operational costs, care must be taken regarding losses and siltation. Conduct repairs on the existing canal network to prevent leaks and ensure adequate water delivery to the fields. Assess and repair machinery used for irrigation practices, replacing any old or malfunctioning parts. Install or repair devices that monitor water levels and soil moisture to improve irrigation management

Lazenby Irrigation Scheme: Combination of Portable and Fixed Systems - Using portable systems for smaller plots and fixed automated systems for larger areas allows for flexibility and optimization of resources based on specific crop needs and land characteristics. Repair existing furrow systems that have become compacted or prone to erosion, as these are vital for effective water distribution. Upgrade to more efficient pumping systems to ensure that excess water can be managed effectively and can be accessed even during dry periods. Repair channels to prevent soil erosion and improve water capture and retention in the farming fields.

Decisions: Prioritise **2 (drag-hose)** as inclusive, lower-pressure retrofit; deploy **3 (drip)** on high-value blocks; use **4** selectively where terrain permits; **5** rejected except transitional/short reaches.

2.5.5 Energy Supply Alternatives

The proposed irrigation schemes for the project experience frequent grid power outages/ load-shedding/ dependence on fuel prices and potential mechanical failures on diesel, and also theft of transformers/cables noted (Chomutamba, Seke Sanyati, Lazenby).

Options: (i) Grid-only; (ii) Diesel generators; (iii) Solar-grid hybrid with security hardening (palisade cages, fencing, proper armoured cable sizes).

Assessment.

- Grid-only: low CAPEX; high downtime risk.
- Diesel: quick backup; high OPEX/emissions.
- Solar-grid hybrid: resilience, OPEX savings, climate gains; aligns with the project's 100 solar VBUs/SBUs plan and design logic for power reinforcement/backup at Chomutamba/Chiwirirano/Takavinga/Lazenby/Shamrock B2 and Seke-Sanyati;

integrate anti-theft enclosures since there are issues of tempering of power cables and tempering with generators and solar panels.

Decision: Solar-grid hybrid and security upgrades (preferred).

2.5.6 Catchment Restoration Alternatives

Problem: There is Dam and / or weir siltation from upstream erosion; streambank cultivation; potential mining pressures (Chiwirirano).

Options:

A) Purely mechanical (gabions, check dams, silt traps).

B) Purely biological (filter strips, woodlots, tree programs, grazing management).

C) Integrated bio-physical (A and B) with Micro-Catchment Management Plans and controls.

Decision: Integrated C as explicitly being mandated by ESMP; scale ~2,000 ha + nurseries; best long-term stability and co-benefits (biodiversity, infiltration).

2.5.7 Market Access & Post-Harvest Alternatives

Options:

1. Upgrade existing feeder roads (~30 km) + mobile market sheds (18) + post-harvest centres with solar cold storage (5).
2. Construct new road alignments and fixed markets only.
3. Transport subsidies without infrastructure.

Decision: Option 1 (Preferred) as it minimises footprint and land acquisition; and also it directly addresses dust/noise impacts which have ESMP controls; and also reduces losses; whilst directly linking to on-scheme sheds (e.g., Seke Sanyati).

2.5.8 WASH Siting & Technology Alternatives

Context: WASH deficits at several schemes (Chomuntamba, Chiwirirano, Seke Sanyati and Shamrock) with cholera/diarrhoea risk if poorly sited; ESMP requires new potable water points and ablutions with safe offsets from water bodies/infield drains and proper treatment/inspection regimes.

Options:

- A. Centralised ablution blocks near pump houses (easy supervision).
- B. Distributed smaller units (closer to fields; higher O&M burden).
- C. Hybrid: one main block plus simple satellite hand-washing/urinals; potable borehole sited per hydro-sanitary setbacks; lined pits or compact package plants.

Decision: Option C- Hybrid has the lowest public-health risk.

2.5.9 Waste and Pollution Management Alternatives

Streams: construction rubble, old GI/PVC, pumps/transformers, used oil, pesticide/fertiliser containers, WEEE from solar/VBUs.

Options:

- 1. On-site burial/open burning (non-compliant).
- 2. **Integrated Waste Management:** segregation, triple-rinsing & puncture, container return, licensed recyclers, hazardous wastes to EMA-approved facilities; IPM to reduce volumes.

Decision: Option 2 (Preferred)—explicitly required in ESMP; integrates IPM and training modules.

2.5.10 Construction Method and Scheduling Alternatives

Options:

- A. Single-season intensive works (shorter disturbance; peak traffic/safety risk).
- B. Staged works by scheme and sensitivity windows (avoid rainy season for earthworks; sequence silt traps first; install security cages/ armoured cables early at high-theft sites; implement temporary sanitation for camps).

Decision: B reduces erosion/safety risk; aligns with ESMP phasing (from planning → construction → operation → decommissioning) and has an emergency preparedness focus (power failure, spills, WASH outbreaks, security).

2.5.11 Delivery and Operation Model Alternatives

Options:

- **Contracting:** Conventional design-bid-build vs. design-build for pump/mainline packages.

- **O&M:** Pure IMC/WUA vs. IMC + service agreements (scheduled maintenance; security services for transformers/cables).

Decision: IMC-led with targeted service contracts (e.g., electrical maintenance; security fencing/cages), reinforced by ESMP training in O&M, OHS, IPM, and governance (with $\geq 50\%$ women, $\geq 30\%$ youth) see Table 10.

Table 10: 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	Drag-hose + selective drip; fixed/automated where fit	High	High	High	High	High	Preferred
Energy	Solar-grid hybrid + security hardening	High	High	High	High	High	Preferred
Catchment	Integrated bio-physical + Micro-Catchment Plans	Very High	High	High	High	High	Preferred
Markets	Upgrade existing roads + mobile sheds + solar cold rooms	High	High	High	High	High	Preferred
WASH	Hybrid siting with sanitary offsets & lined systems	Very High	Very High	High	High	High	Preferred
Waste	Integrated Waste Mgmt + IPM + licensed disposal	Very High	Very High	High	High	High	Preferred
Build/Schedule	Phased by sensitivity; security/WASH first	High	Very High	High	High	High	Preferred
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).

2.5.12 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.

2.5.13 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 (2,000 ha rehab; 5 million trees; nurseries; micro-catchment plans) to protect dams/weirs and water quality.
- Hardens energy reliability (solar-grid hybrid; security cages; compliant cables) where theft/load-shedding are material risks (Chomutamba, Takavinga and Lazenby).
- Reduces losses and improves incomes by feeder road upgrades, mobile markets and solar cold storage linked to on-scheme sheds (e.g., Seke-Sanyati).

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 catchment level. RACP supports this by obtaining water-use permits for all schemes, designing infrastructure to reduce losses and promoting water-saving technologies such as lined canals and drip irrigation.

3.2 Acts

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

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

Water Act [Chapter 20:24] (1998)

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

Forestry Act [Chapter 19:05]

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

Parks and Wildlife Act [Chapter 20:14]

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

Rural District Councils Act [Chapter 29:13]

This Act gives Rural District Councils authority over local land use planning and development. RACP must secure RDC approvals for irrigation works, feeder roads and market centres, and

must carry out inclusive community consultations before land is taken for scheme expansion or infrastructure.

Labour Act [Chapter 28:01]

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

Pneumoconiosis Act [Chapter 15:08]

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

Public Health Act [Chapter 15:17]

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

Communal Land Act and Land Acquisition Act

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

3.3 Statutory Instruments

Environmental Impact Assessment Regulations, SI 7 of 2007

These regulations operationalise the Environmental Management Act's provisions on Environmental Impact Assessments. They specify procedures, content and approval processes for EIA reports 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 Mashonaland West, 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 Mashonaland West 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 Mashonaland West, 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, a Resettlement Action Plan will be prepared. Compensation will follow full replacement cost principles. 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 Sanyati and Manyame catchments, 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 Mashonaland West 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 11.

Table 11: Summary of Triggered OS for RACP Mashonaland West

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 Mashonaland West 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 Mashonaland West 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 well-being 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

This 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. Mashonaland West 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 (see Table 12).

Table 12: Summary of Triggered IFAD SECAP Standards for RACP Mashonaland West

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.
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.

SECAP Standard	Triggered	Justification / Applicability
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.

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Table 13 summarises the main national instruments and standards applicable to the project, the compliance strategy adopted by the proponent, and the corresponding monitoring

arrangements. In addition, Table 14 summarises the main international instruments and standards applicable to the project, the compliance strategy adopted by the proponent, and the corresponding monitoring arrangements.

Table 13: 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:S2)	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 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

Legislation / SI	Compliance Strategy by the Proponent	Permits / Licences / Certificates / Reporting Required	Monitoring Agent
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, accident logs.	NSSA

Legislation / SI	Compliance Strategy by the Proponent	Permits / Licences / Certificates / Reporting Required	Monitoring Agent
National Social Security Authority (Accident Prevention and Workers' Compensation Scheme) (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 14: 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 ESIA/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 Government and IFAD/AfDB.	Government of Zimbabwe / UN Agencies

Instrument / Standard	Compliance Strategy by the Proponent	Permits / Certificates / Reporting Required	Monitoring / Oversight Body
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 15 is 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 15: 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 an integrated environmental and social assessment, cumulative impacts, climate risks and analysis of project alternatives.	S1 requires a comprehensive assessment including climate risk, social inclusion, vulnerability screening and sustainability planning.	Limited integration of social impacts, cumulative impacts, climate risk screening and alternative analysis within EM Act EIA processes.
2. Involuntary Resettlement, Land Acquisition and Compensation	Land Acquisition Act provides procedures for acquisition but compensation is inconsistent, and livelihood restoration is not a legal requirement.	OS2 requires avoidance of displacement, full replacement cost compensation, livelihood restoration and long-term monitoring.	S7 requires equitable land access, FPIC-aligned engagement, livelihood protection and monitoring outcomes.	Livelihood restoration is not mandatory, valuation inconsistent, limited monitoring and there are 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-	OS5 requires Labour Management Plans, worker-specific GRMs, OHS	S4 requires comprehensive labour management, welfare	Labour management, worker GRMs, contractor monitoring and influx

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
	level LMPs, worker GRMs, or Codes of Conduct.	systems, contractor compliance monitoring and protection of vulnerable labour groups.	measures, prevention of labour influx impacts and occupational safety controls.	management are absent in national legislation.
6. Gender Equality and Social Inclusion	Gender Policy encourages gender equity but is not legally binding at the 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	The 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.

Thematic Area	Zimbabwean Legal Requirements	AfDB Requirements (OS)	IFAD Requirements (S)	Gaps Identified
10. Indigenous Peoples and Cultural Heritage Protection	National Museums and Monuments Act protects registered sites but does not require chance-find procedures for projects.	OS1 requires recognition of cultural heritage, mapping and chance-find protocols.	S3 requires cultural heritage screening, consultation with custodians and chance-find procedures.	Absence of mandatory chance-find protocols under the EM Act.
11. Stakeholder Engagement and Disclosure	The EM Act requires consultation at screening and review but does not require continuous engagement or project-level GRMs.	OS1 requires ongoing engagement, documentation, disclosure and dedicated grievance mechanisms.	S6 requires meaningful, inclusive, ongoing engagement and multi-channel GRMs.	No legal basis for ongoing engagement, multi-stage disclosure or formal GRMs.
12. Financial Intermediary Requirements	Zimbabwe's finance regulations do not require banks or cooperatives to conduct E&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, GRM operation, gender integration and biodiversity safeguards. In the long term, targeted legislative and regulatory reforms combined with capacity building will bring national systems closer to international best practice and ensure consistent compliance across all development projects.

4.0 BASELINE ENVIRONMENTAL AND SOCIAL SETTING

This chapter 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:

4.1.1 Topography

The RACP intervention areas within the Mashonaland West province are located on gently sloping land (1-3% slope). The topographic profiles place these schemes in Natural Region 2a to 4 due to the amount of rainfall which they receive which ranges from 450mm to 1000mm/year. These topographical variations strongly influence land use potential, irrigation feasibility and the design of climate-resilient infrastructure under the project. While these gentle slopes are suitable for irrigation development, they present a significant and clearly identified environmental risk. The proposed shift to centre pivot irrigation systems is a positive design response to this topography, as it promotes more uniform water application and reduces the runoff associated with the existing high-pressure sprinklers, for example.

Zvimba District

Zvimba is on the Highveld plateau and the average elevation across the area is about 1100–1,300 metres, supporting a mix of Savannah woodland and wetland vegetation types. The observed land uses included forests (woodlands), bareground (disturbed vegetation), some built up areas and water bodies (rivers and dams), m with rolling ridges and broad valleys. Chomotamba Scheme lies on gently sloping ground fed from a small dam; the long catena supports gravity conveyance but needs storm-water control along access roads. The Lazenby Scheme occupies a similar slope position with slightly heavier soils, suited to flood irrigation if drains are maintained.

Mhondoro-Ngezi District

This area straddles the Sanyati River basin at about 1,100 m. Gently undulating terrain with sandy loams over granite requires drainage to prevent seasonal waterlogging. The terrain

features a gentle but varied relief consisting of wooded rolling hills and rocky outcrops. These features support diverse vegetation communities and influence soil characteristics, particularly in the lower-lying areas where water accumulates. The average elevation across the area is supporting a mix of Savannah woodland and wetland vegetation types. The observed land uses included forests (woodlands), bareground (disturbed vegetation), some built up areas and water bodies (rivers and dams).

Chegutu District

Chegutu lies on the central Highveld at about 1,150 m with gently rolling terrain. Shamrock B2 Scheme is on a low-gradient foot slope near an existing dam, making canal and furrow irrigation viable but needing erosion checks at outlets.

Sanyati District

Sanyati sits at 1,000–1,200 m with flat to gently undulating plains underlain by clay-rich vertisols in valley bottoms. The topography of the Sanyati area is diverse, featuring hills, river valleys, plateaus, and mountainous regions. This varied landscape plays a significant role in shaping agricultural practices, land use, and environmental management in the region. Understanding these topographical features is crucial for effective land planning and sustainable development. All three schemes; Seke Sanyati, Chiwirirano and Takavinga are located on broad, low-slope ground near perennial or seasonal streams, which favours surface irrigation but requires effective drainage to avoid salinization.

4.1.2 Climate

This section outlines the prevailing climatic conditions across the RACP target areas. It provides an overview of rainfall patterns, temperature regimes, seasonality and the frequency of extreme weather events, highlighting differences between the semi-arid lowlands and the more humid Highveld zones. This climate baseline is essential for irrigation design, crop selection and the integration of climate risk management measures into project planning (see Appendix 35). 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.

Mashonaland West sits mainly in Natural Region II and III with a warm, moderately wet climate. Rainfall averages 700–950 mm per year but is unevenly distributed. The Highveld areas of Zvimba, Mhondoro-Ngezi and Chegutu are cooler (summer maxima 25–30 °C) with

fewer frost risks than the Eastern Highlands but face heavy downpours causing erosion. In low-lying Sanyati District, temperatures are warmer and rainfall is less reliable. Irrigation schemes such as Chomutamba, Shamrock B2 and Seke Sanyati need stormwater controls and erosion protection to cope with intense rainfall events.

Climate Risks

This transitional zone from miombo uplands to warmer lowlands is trending hotter and drier with reduced early-season rainfall. Convective storms trigger local flooding and scouring in canals and road crossings. **Zvimba (Chomutamba, Lazenby)** is increasingly prone to dry spells, short, intense storms and ponding fields.

Chomutamba irrigation scheme is located in Natural Region 2 with rainfall ranging from 750 to 1 000 mm/year and a minimum annual average temperature of 15°C. The frequency of poorly distributed seasonal rainfall, heat waves and droughts is on the rise. The scheme uses water from a pool in Hunyani river called Muchekawamvana. This pool has never dried up in the past ten years, nor in all known memory. The **Lazenby** irrigation scheme is in Ward 21 of Zvimba District. The area is in Natural Region 2a with rainfall ranging from 750 to 1 000 mm/year with a temperature range of mean of minimum 15°C. Frequency of erratic rainfall, heat waves, droughts are on the rise.

Chegutu (Shamrock B2) The project area is located in Chegutu rural which is characterised by a normal long-term mean rainfall of about 524.7mm. The minimum, average and maximum rainfall for the region is given in Figure 8. Rainfall in this region exhibits high temporal variability, with the highest average and maximum rainfall received in the month of January. The wet season stretches from the month of October to March and there is very little or no rain in the winter months of June and July. The temperature range for Chegutu district, is located ranges from a normal temperature of 17.8°C around July to 26.2°C in October. A variation of the coldest, warmest and normal temperatures experienced in the project area is given in Figure 6. Generally, the hottest months are September, October and November and the coldest months are June and July. The area faces storm-water surges along sub-catchments with higher irrigation duty from heat stress.

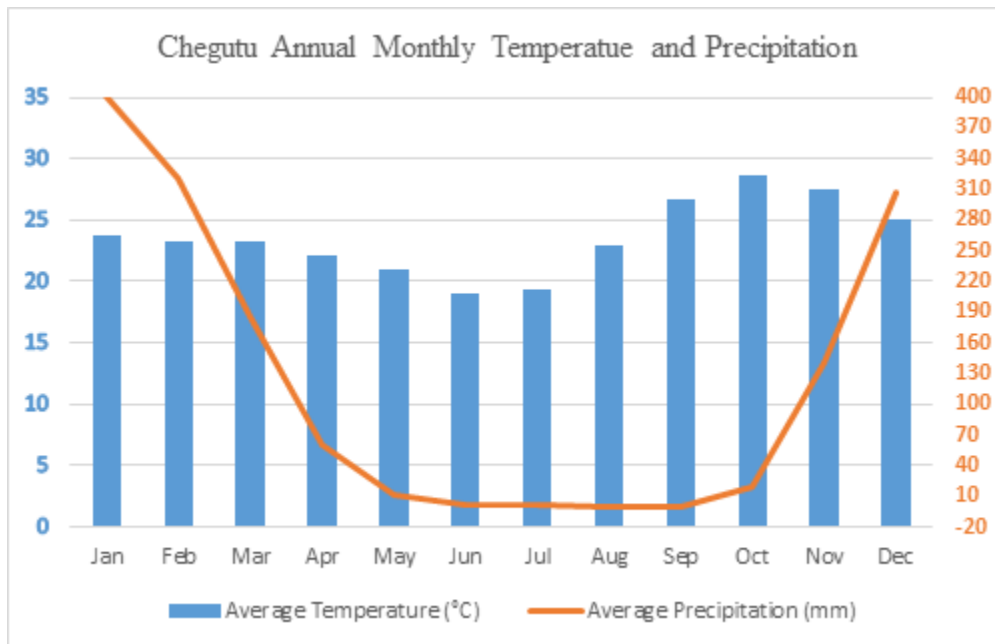


Figure 8: Chegutu Average monthly temperature and precipitation

Sanyati cluster (Seke Sanyati, Chiwirirano, Takavinga). Located at an elevation of 1032.23 meters (3386.58 feet) above sea level, Sanyati has a Subtropical steppe climate (Classification: BSh). The district's yearly temperature is 23.76°C (74.77°F) and it is 1.03% higher than Zimbabwe's averages. Sanyati typically receives about 121.87 millimetres (4.8 inches) of precipitation and has 130.85 rainy days (35.85% of the time) annually. The warmest month is in October (33.56°C / 92.41°F), with the coldest July (9.9°C / 49.82°F), wettest month in January (404.02mm / 15.91in), and driest month is August (46mm / 0.02in). The number of days with rainfall (≥ 1.0 mm) is 130.85 days (35.85%) and days with no rain are 234.15 and a humidity 60.8%. Sanyati experiences both flash-flooding and mid-season dry spells.

Sanyati is mostly in region 3 and Seke-Sanyati is typical of the subregion. The veld has a high average ambient temperature (250C), low average annual rainfall typically 450 to 750mm per annum and the rainfall is poorly/sparsely distributed with a long mid-season dry spell. This makes the region poor in growing long season cereal crops e.g. maize, which is the staple food crop in Zimbabwe; under rain-fed conditions. Small grains such as pearl millet (bullrush millet), finger millet (Rapoko) and sorghum can however do well in the region depending on season quality and particular strains grown.

The Chiwirirano irrigation scheme is in Ward 8 of Sanyati District. The area is in Natural Region 4 with rainfall ranging from 450 to 650 mm/year. Sanyati has a humid subtropical, dry winter climate. The district's average annual temperature 23.760C which is 1.030C above

Zimbabwe’s national average. Low temperature is experienced at 15.250C and this is in winter. Sanyati typically receives about 121.87mm of precipitation and has 130.85 rainy days annually. As a result, Chiwirirano is subject to frequent seasonal droughts and severe dry spells during the rainy season. Wind challenges also affect infrastructure at the scheme. Floods affect gardens along the river.

The Takavinga irrigation scheme is located in Ward 8 of Sanyati District (Figure 9). The area is in Natural Region (NR) 4. Mean annual rainfall ranges from 450- 650 mm. The average annual temperature is 230 Celsius. The probability of droughts, below normal average annual rainfall, poorly distributed rainfall, extended mid-season dry spells and heat waves high in the district. Dubugwani dam supplies water for the irrigation scheme.

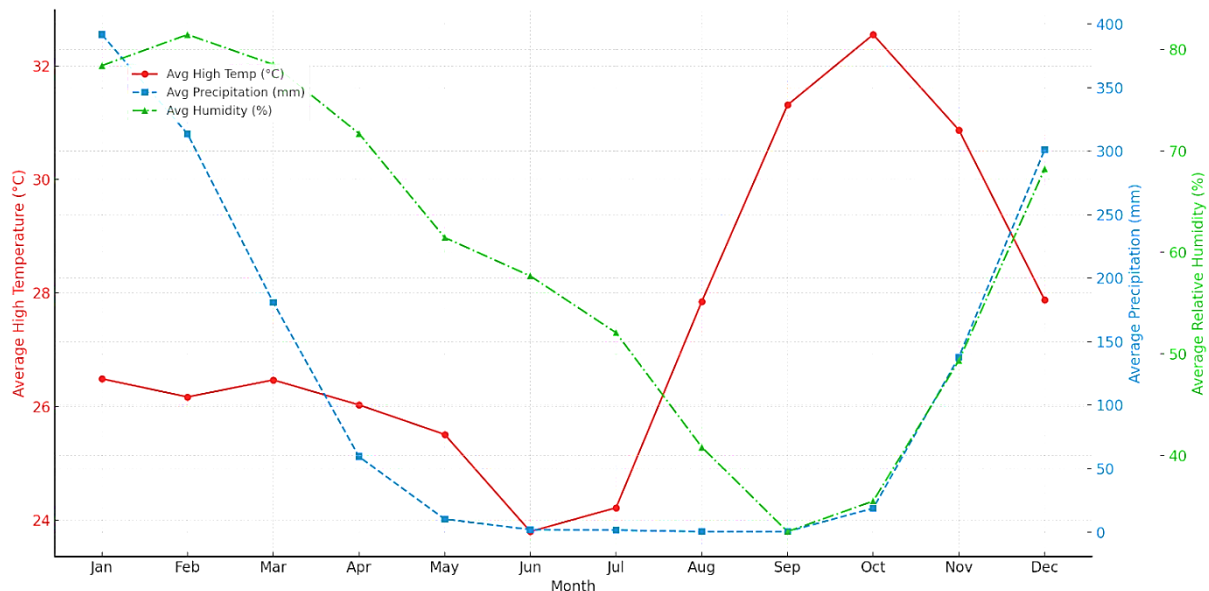


Figure 9: Annual Weather Averages Trends

Mhondoro-Ngezi has heavy clay bottoms prone to waterlogging after storms, followed by rapid dry-down. Climatically, the region falls under the humid subtropical climate with dry winters. This classification is characterised by hot, wet summers and cool, dry winters. The climate in Ngezi is influenced by its elevation and proximity to the monsoon systems that bring moisture from the Indian Ocean. The mean annual temperature is approximately 20.7 °C, with the hottest month being October, averaging 24.4 °C. Temperatures reach their lowest in July, with monthly averages around 16.0 °C. Despite occasional cold spells during winter, frost is rare due to the park’s elevation and moderating topography (Figure 10). Rainfall is strongly seasonal, with an annual average of around 798 mm. The bulk of this precipitation falls between

November and March, with January being the wettest month, receiving around 226 mm on average. In contrast, the dry season extends from April to October, with monthly rainfall often dropping below 10 mm, and August frequently recording virtually no rain. Relative humidity is highest in February at approximately 76%, and lowest in September at around 34%. Sunshine hours remain relatively high throughout the year, ranging from about 8 to 10 hours per day during the wet season and rising above 10 hours in the dry months. Daylight duration fluctuates from around 11 hours in June to roughly 13 hours in December, reflecting Zimbabwe’s subtropical latitude.

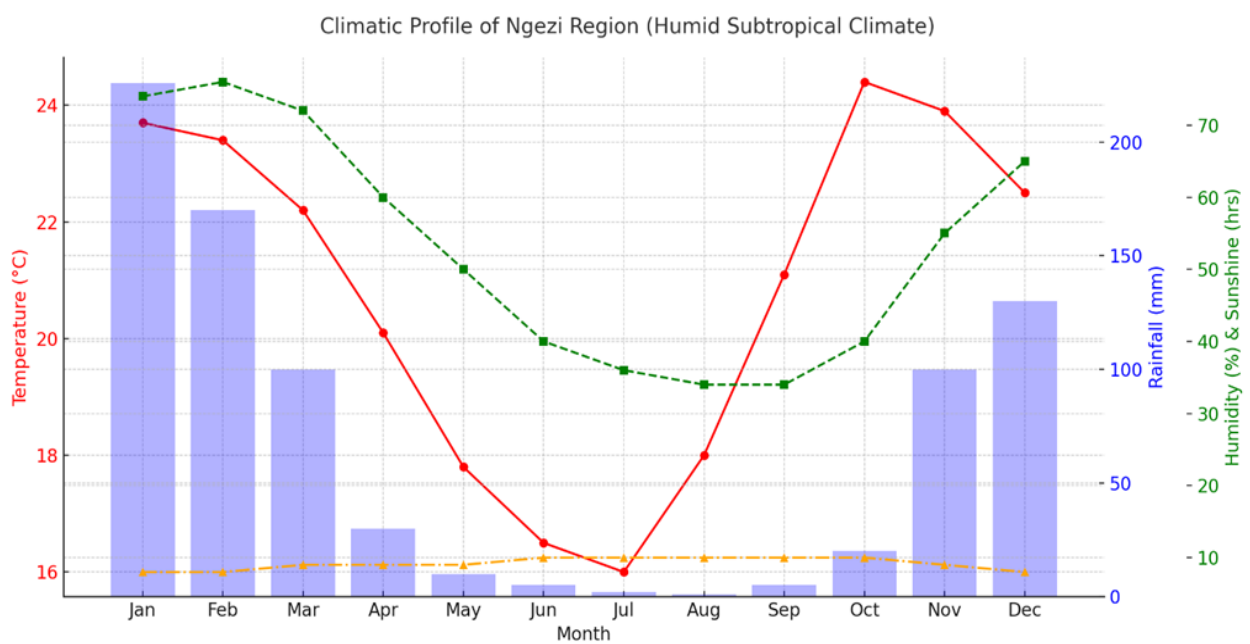


Figure 10: Climate Chart for Mhondoro-Ngezi

CLIMATE RISKS

This section evaluates climate-related risks for the Resilience Agriculture Cluster Project in Mashonaland West using the climate-risk framework that considers hazards, exposure, sensitivity and adaptive capacity. The assessment helps classify the district-level schemes into climate risk categories that range from low to substantial, guiding the design of appropriate adaptation measures.

Mashonaland West faces increasing climate pressures that affect water resources, crop productivity, and the stability of irrigation infrastructure. The districts of Zvimba, Chegutu and Sanyati experience prolonged dry spells, variable rainfall, intense thunderstorms, rising temperatures and occasional flooding of low-lying fields. These pressures directly affect

scheme performance at Chomutamba, Lazenby, Shamrock B2, Seke Sanyati, Chiwirirano and Takavinga, making climate adaptation central to catchment restoration, irrigation rehabilitation and agricultural support.

Zvimba

Zvimba District experiences long mid-season dry spells, declining early-season rainfall reliability and episodic storm events that damage soils and cause localised flooding. The irrigation schemes at Chomutamba and Lazenby are exposed to variable hydrology, siltation of canals and reduced stream flows during drought years. Sensitivity is elevated because the schemes depend on small water sources and have limited water storage.

- Hazards: Mid-season dry spells, intense rainfall, windstorms
- Exposure: Small dams and canals vulnerable to siltation and reduced flows
- Sensitivity: Moderate to high for vegetables and maize
- Adaptive capacity: Moderate (active farmers' committees but limited storage)
- Risk classification: Substantial

Chegutu

Chegutu District faces increasingly erratic rainfall, heat stress during summer, and heavy storms that affect both fields and infrastructure. The Shamrock B2 Irrigation Scheme is particularly exposed because of upslope runoff and sediment movement from mixed land uses, including cultivation and small-scale mining. Sensitivity is heightened by the scheme's reliance on a single water intake and the need for frequent canal maintenance.

- Hazards: Erratic rainfall, heat spikes, storm runoff
- Exposure: Canal network and river intake vulnerable to sedimentation
- Sensitivity: High for irrigated crops when flows decline
- Adaptive capacity: Low to moderate due to infrastructure limitations
- Risk classification: Substantial

Sanyati

Sanyati District is characterised by prolonged dry periods, high temperatures and occasional flash floods along drainage lines that feed irrigation schemes. Seke Sanyati, Chiwirirano and Takavinga all depend on small streams and seasonal storage that fluctuate widely with rainfall patterns. Sensitivity is further influenced by upstream land disturbances, streambank cultivation and reduced vegetative cover, which alter flow regimes.

- Hazards: Prolonged droughts, flash floods, temperature stress
- Exposure: Seasonal water sources affected by land degradation
- Sensitivity: High for horticulture and maize in low-flow periods
- Adaptive capacity: Moderate (strong extension support but limited water buffers)
- Risk classification: Substantial

Component-specific climate risks

- Irrigation rehabilitation: Reduced water availability, siltation of canals and erosion risks at Chomutamba, Lazenby, Shamrock B2, Seke Sanyati, Chiwirirano and Takavinga (substantial).
- Water harvesting structures: Risk of overtopping and siltation during storm events, especially in Chegutu and Sanyati (substantial).
- Feeder roads and market access: Drainage failures and movement challenges during heavy rains (moderate).
- Land restoration: Seedling establishment challenges during prolonged dry periods (moderate).
- Climate information services: Unequal access to early-warning information for scheme farmers (low to moderate).

4.1.3 Soils

The soil conditions in the target areas of the (RACP) are described in this section. It gives a thorough grasp of the many kinds of soil, their textures, fertility, drainage, and susceptibility to erosion or salinisation in the provinces and districts designated for intervention. Choosing the right irrigation methods, crops, and management techniques is essential, as is creating policies to stop soil deterioration and safeguard water quality. The project can customise its interventions to maximise sustainability and productivity while adhering to national and international safeguard criteria by clearly defining the soil profile for every district.

Zvimba District (Chomutamba and Lazenby Schemes) Zvimba's soils are largely deep red-brown clay loams derived from granitic and gneissic parent materials on gently rolling Highveld terrain. Soils vary with bedrock: shallow Lithosols over ultramafic limbs; reddish-brown Ferralsols over mafic cores; and dark, self-churning clays in transitional zones. Chromitite-derived pedons exhibit Ap: 2.5Y 4/1, AC: 2.5Y 4/2, and C: 5Y 3/2. They have good water-holding capacity and moderate to high fertility but can seal and crust under heavy

irrigation if not well managed. Chomutamba Scheme sits on low-gradient ground with these clay loams, suitable for gravity-fed surface irrigation with minimal earthworks. The Lazenby Scheme has similar soils but with slightly heavier texture and higher clay content in valley sections, requiring drains and careful irrigation scheduling to avoid waterlogging.

The physical properties of these soils-such as rapid drainage in sandy loams, shrink-swell behaviour in clays, and metal toxicity in ultramafic-derived profiles-present both ecological challenges and unique habitats for specialised flora. The presence of stunted, drought-tolerant grass tufts and sparse vegetative cover in exposed areas reflects the semi-arid climate and the soils' limited moisture retention, making the region highly susceptible to erosion during dry spells or after vegetation loss.

Mhondoro-Ngezi District. Soils here are a mix of sandy clay loams on uplands and heavier dark clays in low-lying areas. Fertility is moderate, but infiltration is variable; proper land levelling and drainage will be needed to achieve uniform irrigation according to the textural classes, which are in Appendix 1.

Chegutu District (Shamrock B2). Chegutu's soils are predominantly reddish-brown sandy clay loams on gently undulating ground, with pockets of heavier clay in depressions. Shamrock B2 Scheme occupies such a transitional zone; while the soils are generally fertile, drainage channels and silt traps are necessary to prevent ponding and sediment accumulation in canals. Generally, the soils are not susceptible to contaminant migration due to high clay content and good ion retention capacities. Soils are widely used for the cultivation of various crops.

Sanyati District (Seke Sanyati, Chiwirirano, Takavinga Schemes)

Sanyati's soils are dominated by clay-rich vertisols and deep alluvial loams on flat plains. These soils have high moisture-holding capacity and good inherent fertility, but are prone to cracking and waterlogging if irrigation is poorly managed. All three schemes benefit from flat terrain but must maintain well-designed field drains and schedule irrigation carefully to prevent salinity build-up, see Appendix 1.



Plate 7: Soils in Seke Sanyati and Chiwirirano Irrigation Scheme

4.1.4 Catchment, Hydrology and Water Resources

Sanyati Catchment

The Sanyati basin covers a large portion of the Highveld and its transition to the lowveld plains. It is characterised by dense dendritic drainage networks on rolling terrain, with average rainfall of 600–800 mm. Major rivers include the Sebakwe and Sanyati, which support multiple smallholder schemes. Groundwater potential is moderate but under stress from over-abstraction.

Zvimba District (Chomotamba, Lazenby). Upper catchment areas with dendritic tributaries feeding reservoirs; siltation and storm inflows are risks. Chomotamba irrigation scheme draws water from Manyame/Hunyani River at international grid reference: 17°45'31.87"S and 30°21'20.05" E. Water is released into the river from upstream dams that include Manyame Dam and Chivero Dam, which have capacities of 479.434Mm³ and 250.641Mm³ respectively. Manyame River is the medium of transmission for other downstream users, mostly irrigators. The dams are also used for domestic water supply to towns and cities, with irrigation supply being the major use. Water hyacinth is a major threat to the dams.

Lazenby irrigation scheme draws water from Lazenby/Malaba dam at international grid reference: 17°46'59.46"S and 30°25'19.02"E. The dam was constructed for irrigation purposes across Gaka River with a capacity of 3.0 m³. The available water is adequate for irrigating

throughout the year, enabling a 200 to 300% cropping intensity depending on crops and their programming. However, stream bank cultivation is practised mostly by upstream non- scheme members causing some siltation of the water source though the damage has not been scientifically quantified to date. The water is also used for domestic water supply to surrounding farms, but irrigation supply remains the major use. The schemes have a valid water agreement with ZINWA under Manyame catchment.

Mhondoro-Ngezi District. The Mhondoro-Ngezi area in Zimbabwe is centred around key water sources such as the Ngezi River, which supports domestic use and agriculture, along with several dams and reservoirs that store water, especially during dry seasons. Groundwater from aquifers is also vital, with boreholes providing additional access to fresh water. The region experiences a distinct wet season from November to March, which significantly impacts water availability but can be unpredictable. Irrigation schemes are crucial for agriculture, necessitating effective water management. Challenges include flooding during peak rains, soil erosion, and water quality concerns from pollution, highlighting the need for regular monitoring and sustainable management practices.

Chegutu District (Shamrock B2). Gently rolling terrain with dendritic tributaries; Shamrock B2 relies on a small reservoir with low winter baseflows. The irrigation scheme draws water from Mupfure River on the throw back of Johannadale Weir at international grid reference: 17°55'7.85"S and 29°57'53.66"E. The weir was constructed for irrigation purposes across the Mupfure river serving farms on both banks. The scheme has no valid water agreement with ZINWA for the current cropping season. Currently, the water is adequate for irrigating throughout the year. The weir is owned, maintained and operated by ZINWA Sanyati Catchment. The weir is also used for domestic water supply to surrounding farms, but irrigation supply being the major use. Water from Mupfure River is not polluted but infested by water hyacinth. The cracks are progressively expanding thus risking the possible collapse of the whole structure which will make the 4 schemes drawing water from it die a natural death. Upstream activities of streambank cultivation and gold panning cause siltation of the main water source, Johannadale dam thus risking the survivability of the schemes drawing water from it. Illegal gold panning and mining pose the added danger of chemical poisoning of the river and water body not only affecting irrigation, but domestic water supplies, wildlife and domestic animal watering, and the whole aquatic ecosystem.

Sanyati District (Seke Sanyati, Chiwirirano, Takavinga). The hydrology of the Sanyati area in Zimbabwe centers around the Sanyati River, which serves as the primary water source for irrigation, domestic use, and local ecosystems, supplemented by various tributaries. Groundwater resources from underlying aquifers are also vital, with recharge occurring during the rainy season, which typically spans from November to March. Seasonal rainfall can be variable, significantly impacting water availability for agriculture. Irrigation schemes utilise river water, necessitating effective water management to optimise efficiency. However, the area faces challenges such as seasonal flooding that disrupts agriculture, soil erosion from heavy rains, and water quality concerns due to pollution from agricultural runoff and waste. Regular monitoring of water quality is essential to ensure safe drinking water and maintain ecosystem health, highlighting the need for sustainable water management practices in the region. An occurrence of flat alluvial plains along the meandering Sanyati River, salinity and waterlogging are recurring risks; hence drainage maintenance is critical.

Seke Sanyati irrigation scheme draws water from Seke-Sanyati dam at international grid reference: 17°58'1.65"S and 29°27'57.95"E. The dam has a capacity of 3380 ML and yield of 1930ML respectively. The scheme has a valid water agreement with ZINWA under Sanyati catchment. Currently the water is adequate for irrigating the irrigation scheme completely under crop and throughout the year. The dam is owned, maintained and operated by ZINWA Sanyati catchment. The dam is however at risk of siltation as there is upstream stream bank cultivation which is being practiced by non-scheme. Water is released from the dam through an outlet valve into a concrete lined open canal. The outlet valve is approximately 3km from the field edge. The dam water is also used by livestock and wildlife for watering. However, irrigation supply is by far the major use for the stored water. The water source is not polluted and is fit for irrigation purposes

Chiwirirano irrigation scheme draws water from a low-wall weir in Munyati River at international grid reference: 18°10'48.44"S and 29°16'35.11"E. The weir is replenished with periodic releases from Sebakwe, Ireland, Ngondoma and Mutange Dams which are upstream. Outflows from Munyati power station also help farmers in water harvesting opportunities. The wall of the overflow weir is however breached at some sections and cannot hold much water.

The scheme has no valid water agreement with ZINWA under Sanyati catchment. A valid water permit with ZINWA will be necessary for farmers to have consistent water releases through the river. Enough water is available from upstream dams for irrigating the irrigation scheme

completely under crops throughout the year. The dams are owned, maintained and operated by ZINWA Sanyati catchment. Also observed was the stream bank cultivation in the dryland area.

Stream bank cultivation and gold panning is practiced by up-stream scheme and non- scheme farmers likely causing siltation of the water source. The river is also used for livestock watering and domestic water supplies. The water source is not polluted and is fit for irrigation purposes.

Takavinga irrigation scheme draws water from Dubugwane dam at international grid reference: 17°54'34.96"S and 29°31'31.04"E. The dam has a capacity of about 4.0 Mm³. The dam was constructed in 1986 by DDF for irrigation water supply. The scheme has no valid water agreement with ZINWA. It falls under ZINWA's Sanyati Catchment area. Currently the water is adequate for irrigating the scheme completely under crop, and throughout the year. The dam is owned, maintained and operated by the community.

However, stream bank cultivation is practiced mostly by up-stream non- scheme members likely causing siltation of the water source. The dam is also utilised for livestock watering while wildlife from including elephants from the nearby park also drink from it. There is evidence of brickmaking activities by locals in the dam's catchment area. Irrigation supply however remains the prime user of water from Dubugwane dam. The water source is not polluted and is fit for irrigation purposes.

Sedimentation of reservoirs, increasing irrigation demand due to hotter seasons, storm surges damaging canals, and soil salinity in lowlands.

Cross-cutting Risks Across Catchments

- **Drought:** Affects all basins particularly Gwayi and UMP in Manyame.
- **Flooding:** High in Muzarabani (Mazowe) and Msuna (Gwayi), moderate in Sanyati lowlands.
- **Sedimentation:** Universal threat to small dams and night-storage reservoirs.
- **Waterlogging and salinity:** Localised risk in Sanyati flats.
- **Groundwater stress:** Variable reliability in Nkayi, UMP and Mhondoro-Ngezi.

4.1.5 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.

Zvimba, Chegutu, Sanyati and Mhondoro-Ngezi present a transitional vegetation zone where miombo uplands give way to warmer lowveld plains. Dominant trees include *Brachystegia*, *Julbernardia* and scattered *Sclerocarya birrea* interspersed with *Hyparrhenia*, *Themeda* and planted *Chloris gayana* along scheme roadsides. Herbs such as *Bidens pilosa*, *Amaranthus spp.* and *Sida rhombifolia* colonise irrigation furrows and disturbed verges, while *Cyperus rotundus* and *Ludwigia spp.* occur in wetter patches. This mosaic provides soil stabilisation, fodder and nesting cover for francolins, guinea fowl and small mammals around irrigation schemes see Plate 8).

Zvimba District (Chomutamba, Lazenby). Highveld Miombo is interspersed with vleis supporting wetland plants and Crowned cranes. Small mammals and pollinator insects are abundant. Schemes must avoid converting these wetlands. The area is a biodiverse mosaic of distinct ecological zones, situated within the globally significant Southern Miombo Woodlands ecoregion. Spanning elevations of 1,200–1,300 meters, its landscape integrates rocky outcrops, serpentine grasslands, and riverine gallery forests, each hosting unique flora adapted to specialised niches. The dominant Miombo woodlands feature a semi-deciduous canopy of *Brachystegia*, *Julbernardia*, and *Isoberlinia* tree species, which undergo seasonal leaf-shedding and vibrant regrowth during rains, supporting nutrient cycling and fire resilience. Serpentine soils foster rare endemic grasses and herbs, while riverine corridors harbour moisture-dependent species like *Syzygium* and *Ficus* species.

Grasslands interwoven with *Hyparrhenia* and *Themeda* provide critical habitat for pollinators and grazing fauna. Though partially fragmented by historical mining and small-scale agriculture, the site retains high ecological connectivity, offering refuge to various species and serving as a corridor for migratory wildlife. This dynamic interplay of geology, hydrology, and

climate sustains one of Zimbabwe's most ecologically complex landscapes, underscoring its value for conservation and climate adaptation.

Trees and Shrubs

The tree and shrub communities reflect both the influence of the soils and the broader Zambezi miombo woodland, with characteristic species such as *Brachystegia spiciformis* (Msasa), *Julbernardia globiflora*, *Combretum*, *Acacia albida* (Apple-ring Acacia), *Ficus* (figs), and riverine specialists like *Sycamore Fig* and *Croton megalobotrys* lining watercourses. Sparse woodlands feature stunted endemics like *Ozoroa longipetiolata* and *Euphorbia wildii*, uniquely evolved for serpentine soils. Riverine corridors harbour *Ficus thonningii* and *Syzygium cordatum*, critical for stabilising banks and supporting frugivores. Miombo woodlands transition with *Combretum collinum* and *Pterocarpus angolensis*, a vulnerable hardwood. Poisonwood (*Albizia versicolor*) and *Lannea discolor* thrive on rocky slopes, while *Indigofera serpentinicola* forms nitrogen-fixing scrub, enriching the metalliferous substrate. In these woodlands and forests, unique shrubs like *Euclea*, *Sterculia*, and endemic species form dense thickets, while termite mounds and well-drained soils host additional woody diversity. A list of the trees and shrubs observed in and around the project site is presented in Appendix 2 and shows some of the trees found onsite. According to the IUCN Red list most tree and shrub species within the project area are either of least concern or not evaluated with the exception of Mubvumira classified as vulnerable.

GRASSES AND HERBS

The grass and herbaceous layer is dominated by serpentine-adapted flora species, specially adapted to these challenging soils, including endemic plants such as *Ozoroa longipetiolata*, *Euphorbia wildii*, and *Indigofera serpentinicola*, *Eragrostis serpentinicola* and *Senecio wildii*, which tolerate toxic metals like nickel and chromium. Alongside widespread grasses like *Hyparrhenia*, *Themeda triandra*, and *Cynodon dactylon*, which thrive in open grasslands and seasonally waterlogged pans. These grasslands are interspersed with suffrutescent species like *Lannea edulis* and *Parinari capensis*, and richer pockets on termite mounds support a diversity of herbs and forbs, contributing to the region's high plant endemism. *Helichrysum dykei*, a mineral-tolerant everlasting herb, stabilises loose soils, while the *Cheilanthes involuta* clings to shaded crevices. *Cymbopogon citratus* and *Aristida spp.* dominate disturbed areas, showcasing resilience in both pristine and human-impacted zones.

The detailed list of grass and herb species observed in and around the project area is presented and some of the observed species are shown in Appendix 3 According to the IUCN Red list most grass and herbaceous species are either of least concern or near endemic.

Fauna

Faunal diversity is equally rich, reflecting the ecological complexity fostered by the varied topography and habitats. The rocky serpentine grasslands and chromium-rich soils support specialised wildlife adapted to harsh conditions. Endemic species like the *Procapra capensis* thrive in crevices, while raptors such as the *Buteo augur* patrol open woodlands. The *Stigmochelys pardalis* navigates arid slopes, and *Chlorocebus pygerythrus* exploit riverine forests. Mining activities threaten sensitive species like the *Aloe ortholopha*, which provides nectar for pollinators in its rare, rocky habitats. The animals known to exist and whose spoor was observed onsite are listed in Appendix 4. The majority of animals known to exist in and around the project site are generally of least concern according to the IUCN red list.





Combretum sp



Diplorhynchus condylocarpon



Stachys sp

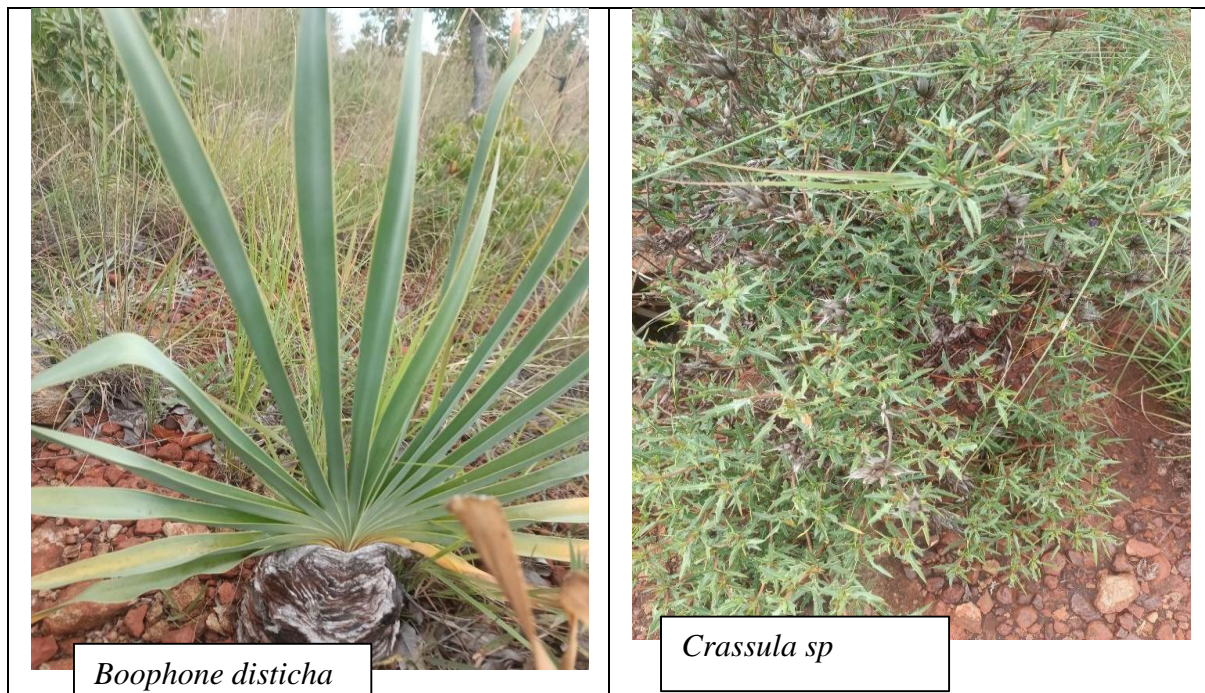


Plate 8: Pictures of some of the species found in Zvimba District

Mhondoro-Ngezi District. The area is made up of mixed woodland and open savannah used for grazing. Riparian zones provide corridors for Bushpig, Mongoose and a variety of birds. Vegetative buffers must be kept. The canopy of Ngezi’s miombo woodlands is dominated by deciduous legumes such as *Brachystegia* species and *Bauhinia. Tamarindoides*, with Mnondo (*Julbernardia globiflora*) prominent on hill slopes. Beneath these large trees, shrubs and small trees such as *Combretum spp.* and *Euclea crispa* colonise rocky soils, while Silver Cluster-Leaf (*Terminalia sericea*) and peeling-bark *Ochna pulchra* thrive on more open outcrops; while forests along the Ngezi River support *Markhamia zanzibarica* and *Ficus sur.* A list of the trees and shrubs observed in and around the project site is presented, along with some of the trees found onsite. According to the IUCN Red List, most tree and shrub species within the project area are either of least concern or near-endemic.

The project site is a rich mosaic of habitats including rocky outcrops, Miombo woodland, riverine gallery forest and serpentine soils at 1,200 –1 300 m elevation Plate 9. Situated within the Southern Miombo woodlands ecoregion, the area belongs to one of the world’s largest tropical woodland biomes, characterised by a deciduous canopy of *Brachystegia*, *Julbernardia*, *Combretum* and *Isobertinia* that shed leaves in the dry season and re-flushes at the onset of rain. The project site is mainly composed of grasslands, Miombo woodland and cultivated/mined out areas.

TREES AND SHRUBS

The canopy of Ngezi's miombo woodlands is dominated by deciduous legumes such as *Brachystegia* species and *Bauhinia*. *Tamarindoides*, with *Mnondo* (*Julbernardia globiflora*) prominent on hill slopes. Beneath these large trees, shrubs and small trees such as *Combretum* spp. and *Euclea crispa* colonise rocky soils, while Silver Cluster-Leaf (*Terminalia sericea*) and peeling-bark *Ochna pulchra* thrive on more open outcrops; while forests along the Ngezi River support *Markhamia zanzibarica* and *Ficus sur.* A list of the trees and shrubs observed in and around the project site is presented in Appendix 5 and some of the trees found onsite. According to the IUCN Red list most tree and shrub species within the project area are either of least concern or near endemic.

GRASSES AND HERBS

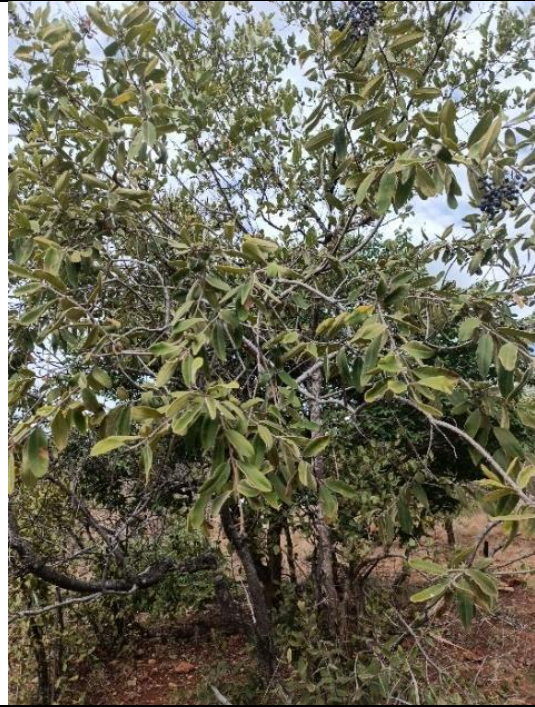
Open savannah and fire-maintained grasslands are dominated by tall grasses like *Themeda* (*Themeda triandra*), interspersed with Buffalo Grass (*Panicum maximum*), Cogon Grass (*Imperata cylindrica*) and various *Digitaria* species. The herbaceous layer includes disturbance-tolerant forbs such as Wild Sunflower (*Aspilia mossambicensis*) and Spurge (*Euphorbia hirta*), as well as geophytic and hemicryptophytic plants adapted to seasonal fires regenerating quickly from underground buds or protective leaf bases. According to the IUCN Red list most grass and herbaceous species are either of least concern or near endemic.

Fauna

Medium-sized ungulates such as Impala (*Aepyceros melampus*) and Waterbuck (*Kobus ellipsiprymnus*), alongside primates like Vervet Monkey (*Cercopithecus pygerythrus*), are regularly encountered; small carnivores include Banded Mongoose (*Mungos mungo*) and Rock Hyrax (*Heterohyrax brucei*). These encounters are a result of close proximity of Chegutu Safari game park to Takavinga irrigation scheme. Avifauna is equally diverse, from scavengers such as the Critically Endangered White-backed Vulture (*Gyps africanus*) and Endangered Martial Eagle (*Polemaetus bellicosus*), to Vulnerable Southern Ground Hornbills (*Bucorvus leadbeateri*) and the iconic African Fish Eagle (*Haliaeetus vocifer*) patrolling the lake margins. Aquatic and semi-aquatic reptiles are led by the Nile Crocodile (*Crocodylus niloticus*), a keystone predator in the dam and river gorge, alongside a suite of savannah-adapted lizards and snakes. The majority of animals known to exist in and around the project site are generally of least concern according to the IUCN red list with the exception of birds, as the project site exists close recreational park which is a good habitat.



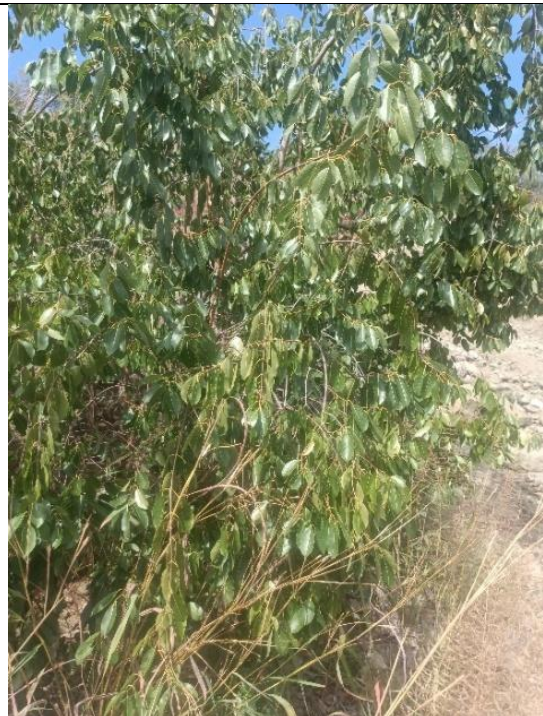
Kudu berry



Ozoroa sp.



Combretum



Olea sp.



Brachystegia boehmii



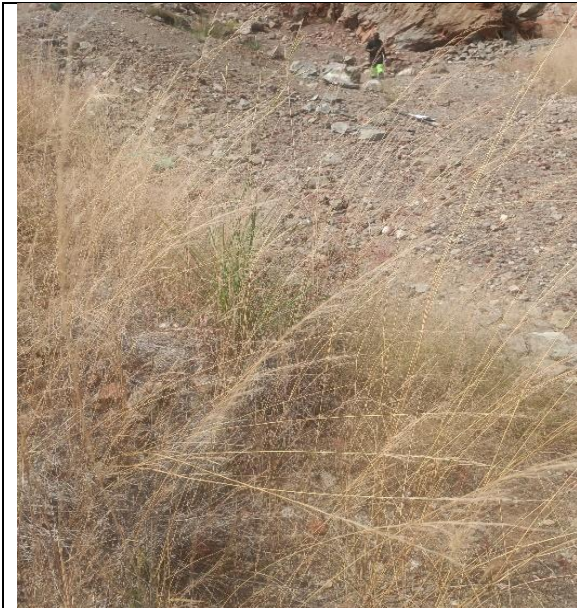
Dodonea sp321



Andoporgon sp.



Vernonia sp



Sporobolus sp.



Stachys sp.



Crassula sp.



Asparagus sp.

Plate 9: Pictures of some of the species found in Mhondoro-Ngezi District

Chegutu District (Shamrock B2). Rolling farmland with woodland patches and scattered termite mounds. Important species include francolins, hoopoes and ground-nesting birds; termite mounds host reptiles and beneficial insects.

Trees

The highest diversity of tree species is mainly found within the woodland which have not been severely disturbed by farming. The tree and shrub species found within the project area are consistent with vegetation of a sandy open woodland and of a cultivated area and/or roadside. The project area is dominated by *Acacia spp.* observed especially at the edges of cultivated areas and woodland areas surrounding the claim boundaries. Fallow fields are characterised by regrowths of *Acacia spp.* and mature *Acacia* are dominant on the edges. *Colophospermum mopane* is the dominant species to the North East of the claim boundaries with few stands of *Brachystegia spp.* There is evidence of deforestation mainly of *Brachystegia bohemii*, *Jubernadia globiflora* and mopane which are observed. The invasive species *Lantana camara* is a common feature at the border of the project area, as it might once have been used as a live fence. Some tree species found within the project area, *Pouzolzya mixta*, *Albizia adanthifolia* and *Commiphora ugogensis* typify sandy river margins along Mupfure river. A significant proportion of the project area has no large trees, consistent with the farming and mining activities which used to or still occur on the farm. The list of tree and shrub species within the project area are given in Plate 11

Grasses and herbs

The project area was composed of several kinds of grass and herb species which are typical of disturbed or cultivated areas. The dominant grass species observed include Runner grass, *Hyperenia spp*, *Eragrostis Tenuifolia*, *Mellenis Repens* and *Themeda Triandra* which are mostly found in disturbed open grasslands. The herbs *Amaranthus hybridas*, *Tagetes Minuta*, *Commelina Bengalensis*, *Bidens spp*, *Ricinus Communus* and *Amaranthus hybridus* and *Sorghum arundinaceum* are found across the project area especially in the parts which were once used for farming purposes. Some grass and herb species that are typical of wet conditions are found near/along the periphery of Mupfure river and include *Sporobolus stapfianus*, *Lippia javanica* and *Cynodon aethiopicus*. Some of the grass and herb species found within the project area are shown in Appendix 9. Vegetation on the Chomutamba irrigation scheme is Tree Bush Savanna with *Terminalia sericea* and *Peltophorum africanum* species dominating. These tree species habitat hot areas with shallow poorly drained soils. *Hyparrhennia filipendula* grass,

Sporobolus filipendula, *Melinis repens* and spear grass constitute the veld indicating overgrazing

Fauna

Different animal species, both domestic and wild, were observed in the area. The animals include monkeys, rabbits, common duiker, squirrel, guinea pig, cattle and goats. The birds sighted include but are not limited to the yellow bishop, blue waxbill, southern masked weaver, laughing dove etc. The detailed list of the animals, birds, reptiles and entomology in the area. None of the animals and birds noted in the project area fall in any of the following categories under the Parks and Wildlife Act; (1) Protected animals (Sixth schedule), Problem animals (Eighth schedule) or Dangerous animals (Ninth schedule). The indigenous knowledge System (IKS) highlighted the presence of Python around the study area. This reptile falls under the specially protected animals category, as shown in Plate 10.







Plate 10: Pictures of some of the species found in Chegutu District

Sanyati District (Seke Sanyati, Chiwirirano, Takavinga). Flat alluvial plains with *Faidherbia* parkland and seasonal wetlands. Seasonal pools support amphibians, dragonflies and Tilapia. Drainage works should maintain natural wetland cycles.



Plate 11: Seke Sanyati

A comprehensive desk study was conducted to review the historical flora and fauna species within and around the project area. This review incorporated data from previous reports, including Environmental Impact Assessments, biodiversity studies, mine closure plans, and similar documents from adjacent regions. Sampling areas were meticulously selected based on

vegetation cover to ensure a thorough and representative analysis. Fauna species were identified through direct physical observations and indirect indicators such as tracks, droppings, feathers, and eggs. For bird identification, live observations were supplemented with proxies like feathers, eggs, and nests. Small insects, including spiders, butterflies, and bush flies, were identified using live observations supported by guidebooks. Indigenous knowledge played a crucial role in identifying and classifying flora and fauna species. The surveys aimed to recognise and document species in and around the study area, categorising them as rare, endangered, or protected.

Vegetation and Fauna

Sanyati in Mashonaland West Province of Zimbabwe, features diverse vegetation and habitat types influenced by its geological formations, climate, and soil characteristics. The primary habitat types include grasslands, woodlands, shrublands, wetlands, and disturbed areas. This variety supports a wide range of flora and fauna, contributing to the region's ecological richness.

Grassland Habitat:

Grasslands in the area are characterised by open areas dominated by various grass species, essential for maintaining soil structure and providing grazing grounds for livestock and herbivorous wildlife, see Appendix 11. These varied habitat types, supported by distinct soil types, play a vital role in maintaining the ecological balance and biodiversity of the area. Effective management and conservation practices are essential to preserve these habitats and their ecological functions. A typical representation of vegetation observed before mining is given in Plate 12.



Plate 12: Typical Vegetation

The identification of endangered, endemic, or vulnerable plant species from the observed vegetation was conducted through cross-referencing with known conservation statuses from global databases such as the IUCN Red List, regional conservation lists, and local environmental assessments.

Flora

Trees

The project site is predominantly populated by species such as *Brachystegia spp.*, *Combretum spp.*, *Acacia spp.*, *Parinari spp.*, and *Lantana camara*. Other notable species, including Chinese lantern and Mopane, can be found clustered in specific areas. During the study, tree species were recorded in and around the project area, with none classified as endangered or endemic according to the IUCN Red List Plate 13. Appendix 11 highlights some of the tree species observed in the vicinity of the project area.



Plate 13: Tree Species

Grasses

Herbs found within the project are weeds, reflecting that the area is a disturbed site. The dominant grass species observed include *Heteropogon sp.* and *Hyppherenia sp.*, *Eragrostis sp.*, *Cynodon dactylon* and *Themeda triandra*, which are mostly found in disturbed open grasslands. *Amaranthus hybridus*, *Tagetes minuta*, and *Ocimum spp.*, are still some of the common herb

species found across the project area. Some grass and herb species that are typical of wet conditions are found near/along the periphery of rivers and streams and include *Sporobolus stapfianus*, *Lippia javanica* and *Urochloa panicoides*. Some of the grass and herb species found within the project area are shown in *Appendix 11*

Fauna

The project area and its surroundings are heavily impacted by mining and other human activities, leading to the loss of habitats and habitat fragmentation. Various wild animals have been recorded in the area, with significant evidence of bird populations (see *Appendix 11*). Historically, the wildlife in the region includes scrub hares, monkeys, rabbits, common duikers, squirrels, and guinea pigs. According to the International Union for Conservation of Nature (IUCN) and the Parks and Wildlife Act, certain species observed or known to exist in the project area fall under protected categories. Notably, the endangered pangolin is among these species.



Plate 14: Animal species observed

Summary

Across the RACP Mashonaland West province, biodiversity ranges from mopane and acacia woodlands in the west to rich miombo mosaics and wetlands in the Highveld east. Dominant plant species include mopane, *Faidherbia*, *Brachystegia* and *Combretum*. 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.

4.1.6 Social Environment

The Social Environment baseline gives clear explanations of demographics, livelihoods, gender/youth dynamics, poverty and vulnerable groups, and the concrete statistics from the ward populations, household incomes, scheme beneficiaries.

Provincial overview: Primarily agricultural, with key crops like maize, tobacco, and horticulture drive the economy. The region also has significant mining activities, particularly in chrome and gold, providing employment opportunities. Its population is diverse and predominantly youthful, with Shona-speaking communities. Economic livelihoods often rely on subsistence farming, small-scale mining, and informal trade, though residents face challenges such as economic instability and limited infrastructure. Access to education and healthcare is uneven, particularly in rural areas, where facilities are often under-resourced. Ongoing efforts aim to improve water supply and sanitation (WASH) facilities, addressing pressing health concerns. Despite its agricultural and mineral potential, the province requires targeted development initiatives to foster community progress.

Zvimba District Socio-Economic Baseline

Zvimba District, located in Mashonaland West Province, Zimbabwe, spans an area of 6,072 km² and is home to a diverse population of approximately 348,002 people, as per the 2022 Zimbabwe Population and Housing Census. The population is nearly evenly distributed, with 171,999 males and 176,003 females, and the district exhibits a youthful demographic, with a significant proportion under the age of 30.

Land tenure in Zvimba is primarily based on communal ownership, wherein land is vested in the President, and Rural District Councils (RDCs) handle allocations. Inhabitants in communal areas, hold usage rights but lack the authority to sell or transfer land. Allocations are made typically based on family needs and customary practices, with inheritance often following traditional norms, leading to fragmentation over generations. The Fast Track Land Reform Programme (FTLRP), initiated in the early 2000s, has redistributed land to previously disadvantaged groups, resulting in the establishment of A1 smallholder and A2 commercial farming areas. Beneficiaries receive 99-year leases which provide land use rights without full ownership. However, illegal settlers, particularly artisanal miners, have created challenges, leading to land disputes and environmental degradation.

The infrastructure in Zvimba District supports communication, with major mobile network providers like Econet, NetOne, and Telecel offering coverage in urban and peri-urban areas,

including Ward 32. This improved connectivity facilitates communication, although internet access remains inconsistent in more remote regions. Housing patterns reflect a blend of traditional and modern structures, with many rural residents residing in thatched huts or iron-sheet homes.

Access to water, sanitation, and health facilities is a significant concern in Zvimba. Many communities depend on inadequately maintained Blair toilets or makeshift bathrooms, with access to potable water being erratic. Efforts to drill and rehabilitate boreholes are ongoing to improve access to clean water. Healthcare services are limited; although a health center exists, residents often travel long distances for medical care, facing high transport costs. Clinics provide basic health services, including HIV counseling and treatment, but shortages in medication persist.

Education is another critical area and there is a pressing need for more educational facilities in the project area, as current infrastructure is inadequate, lacking sufficient classrooms and resources like libraries. Villagers primarily engage in agriculture, small-scale mining, and trade but face financial constraints that prioritize feeding their families over educational expenses. The district's agricultural activities, which include maize, cotton, tobacco, and horticulture, are vital for local livelihoods, while illegal mining also contributes significantly despite its challenges.

Overall, Zvimba District reflects a complex socio-economic landscape marked by challenges in land tenure, healthcare access, education, and sustainable livelihoods, necessitating targeted interventions to foster community resilience and development. Irrigation rehabilitation under RACP offers a critical opportunity to stabilise household incomes, enhance food availability and support long term socio-economic resilience for the valley communities.

Schemes serve 3 000–5 000 people per ward. Smallholders produce maize, horticulture and tobacco; cash incomes average USD 100–150/month. Youth are half of the workforce; women active in market gardening but less in leadership.

Chomutamba: The main livelihood activities are ranked in the following order; Horticulture production in the irrigation scheme; Dryland crop production; Livestock production and sales; Remittances; Selling crafts from weaving, basketry and pottery; Internal Savings and Lending Schemes (ISALS) There are B1 and B2 farmers and three families qualify for category C who have potential to enter into commercial farm. There are 67 beneficiaries; 32% constitute women; 14.9% constitute above 65years and 13.4% constitute male and female youths.

Lazenby Farmers derive most of their livelihood from dryland farming, horticulture production in family gardens, family indigenous poultry flocks, goat production, irrigation scheme farming and some small-scale beef production in that order of importance. The irrigation scheme has 16 plot holders who mainly fall under categories B1 and B2. Only one farmer was singled out to be in category C. there are 7 females in the scheme and also over 65years are part of the scheme. The major crops produced in the irrigation scheme are maize and wheat. This is mainly because these crops are grown for food security under the Presidential Input Program. Though they are currently producing for food security only, they are also keen to venture more profitable crops such as horticultural crops, provided they engage market players.

Mhondoro-Ngezi:

Mhondoro-Ngezi has a population of approximately 140,994, featuring 71,597 males and 69,397 females (Zimstats 2022), with a predominantly male demographic engaged in mining activities. Traditional leaders and local governance play significant roles in land management and community affairs.

Access to healthcare in Mhondoro-Ngezi presents substantial challenges. However, inadequate medical supplies and the need for specialized care force residents to travel to distant facilities, increasing costs and accessibility issues. Additionally, socio-economic stresses contribute to problems like substance abuse and home deliveries, highlighting the urgent need for improved healthcare access.

The economy primarily relies on subsistence farming, small-scale mining, and informal trade. Agriculture, including maize cultivation and cattle ranching, serves as a central livelihood, but water scarcity and resource limitations hinder productivity. Mining, especially illegal alluvial chrome mining, plays a significant role in local income, although it often leads to competition and tensions between local and external workers. Small businesses exist, yet they face considerable challenges in a struggling economy.

Education in Mhondoro-Ngezi is hampered by infrastructural deficiencies and limited access to resources. The nearest schools are often distant from residential areas, affecting attendance rates. Financial constraints force families to prioritize immediate needs over education, contributing to lower enrolment and retention, particularly for girls. Strengthening educational facilities and increasing community support for schooling are essential for long-term development and improving overall quality of life in the district.

Resettled farmers in drought-prone wards with poverty >70 %. Household incomes under USD 70/month; women's market participation low.

Chegutu District Socio-Economic Baseline

Chegutu District, located in Mashonaland West Province, covers an area of approximately 2,220 km². According to the 2022 Zimbabwe Population and Housing Census, the district has a total population of around 120,000 residents, comprising 58,000 males and 62,000 females. The population is characterized by a relatively youthful demographic, with a significant percentage under the age of 30. The urban area of Chegutu serves as the administrative center, while the surrounding rural regions consist of smaller, predominantly agricultural communities.

Land tenure in Chegutu is characterized by a mix of communal, resettlement, and commercial farms. Currently, many smallholder farmers occupy A1 farms, while A2 farms focus on commercial agriculture. However, the absence of formal title deeds for communal and resettlement land complicates land use rights and leaves many farmers vulnerable to disputes and land encroachments.

Chegutu's economy is primarily agricultural, with key products including maize, tobacco, and horticultural crops. Livestock farming, particularly cattle, goats, and poultry, also contributes significantly to household income and food security. Apart from agriculture, there is a growing informal sector involving small-scale mining, trading, and artisanal activities. Economic challenges, such as high inflation and limited access to credit, hinder local businesses and farmers from maximizing their potential.

The main source of livelihood for the majority of residents in Chegutu is agriculture. Small-scale mining activities have emerged, providing additional income sources, but formal employment opportunities remain limited. Major employers include the local municipality, educational institutions, and a few established businesses. Many residents rely on informal work as a survival strategy amid economic instability, which affects job availability.

Healthcare access in Chegutu includes a network of government clinics and hospitals offering essential services. However, rural areas struggle with healthcare accessibility due to resource constraints, inadequate infrastructure, and the long distances to medical facilities. Common health issues include maternal and child health problems, HIV/AIDS, and communicable

diseases. Access to clean water and sanitation facilities is also a major concern, particularly in underserved communities.

The education system in Chegutu consists of both primary and secondary schools, but access to educational facilities varies significantly. Rural schools often encounter challenges such as overcrowding, inadequate infrastructure, and shortages of qualified teachers. While local government initiatives aim to improve educational access and quality, socio-economic barriers continue to impact attendance and retention, especially for girls.

Infrastructure development in Chegutu has been somewhat uneven, with urban areas benefiting from better road networks and services compared to rural regions. Main transportation routes connect Chegutu to other major cities, facilitating trade and commerce. Communication networks include mobile services from providers like Econet and NetOne, although quality and access remain problematic in rural areas.

Social challenges, including poverty, unemployment, and substance abuse, affect the socio-economic landscape of Chegutu. Local communities often engage in mutual support systems and cooperatives to address economic adversities. Women's contributions to household income generation, particularly through agriculture and small businesses, are vital, though they face gender-specific barriers when accessing resources and opportunities.

Shamrock B2 primary sources of livelihood for farmers are ranked as crop production under irrigation, beef production, goat production, dryland crop production and gold panning. Farmers at Shamrock block 2 irrigation scheme mainly fall under poverty categories **B1:** and **B2:** Emerging smallholder farmers with land and labour but cash constrained and vulnerable to shocks, these households can increase productivity to achieve food and income security and become engines of rural economic growth. Very few farmers are in category C. The scheme has 25 beneficiaries and 12% constitute women hence the scheme has more man and there is no gender equality. Maize, soya, cotton and horticulture around small dams; average household cash incomes USD 120–180/month. Women's representation 30–50 %.

Sanyati District Socio-economic Baseline

Sanyati District, located in Mashonaland West Province, has an estimated population of around 210,000 according to the 2022 census, with a balanced male-to-female ratio. The population is predominantly rural, with many residents engaged in agriculture and small-scale enterprises.

Health challenges in Sanyati are significant. The district experiences high rates of water-borne illnesses and nutritional deficiencies. HIV prevalence, while specific figures are limited, is a concern due to migration and labor mobility in the area. Access to healthcare services is hindered by long distances to clinics and insufficient healthcare infrastructure. Many communities lack safe water and sanitation facilities, leading to increased risks of disease transmission.

The economy of Sanyati is primarily agricultural, with key activities including crop farming and livestock rearing. Maize and small grains are the main crops cultivated, along with tobacco and some horticultural products. Livestock plays an important role in household income and food security. Additionally, small-scale enterprises contribute to local livelihoods; however, many of these businesses face challenges such as limited access to credit and fluctuating market prices. Recurring droughts and climate variability significantly impact agricultural productivity, leading to food insecurity for many households.

Infrastructure in Sanyati faces multiple challenges. The district has a network of unpaved and poorly maintained roads, which often become impassable during the rainy season, hindering access to markets and essential services. Public transportation options are limited, particularly in rural areas, affecting mobility for residents. While telecommunication infrastructure is available, it may lack reliability, especially in remote areas, further affecting access to information and services.

Educational facilities in Sanyati are available, but they face significant challenges, including being under-resourced, which impacts the quality of education and retention rates. Access to schools can be difficult, especially for children in rural areas where travel conditions are poor. Efforts to improve educational access and quality are ongoing but require further investment and support.

Social dynamics in Sanyati include various challenges. Many households live in poverty, with limited access to resources and opportunities for income generation. Gender dynamics reveal that women often carry the burden of agricultural work and household responsibilities while having limited access to decision-making processes and resources. Additionally, traditional norms and practices significantly influence social structures and may impact women's participation in economic and governance activities.

This socio-economic baseline provides a comprehensive overview of the critical factors affecting Sanyati District, emphasizing the need for targeted interventions in health, education,

infrastructure development, and gender equity to improve overall community well-being and resilience.

Seke Sanyati, Chiwirirano, Takavinga: Cotton–livestock systems with irrigated vegetables and maize. Youth uptake in aggregation and logistics; poverty moderate to high in dry wards. The main livelihood activities are ranked in the following order: Crop production in the irrigation scheme; livestock production (cattle, goat and Poultry); ISALs. Farmers at Seke Sanyati irrigation scheme mainly fall under poverty categories B1, B2 and C farmers with land and labour and have potential to enter into private sector market linkage arrangements and produce a saleable surplus. There are no plot holders falling into category A: Poor households with little or no land.

Chiwirirano Scheme: The main livelihood activities are ranked in the following order; Horticulture production along Munyati riverbank; gold panning; petty trading; brick moulding; selling firewood; dryland crop production; fishing. The irrigation scheme has 54 members of which 17 are women, the IMC has 2 women in the committee of 7, it was explained that women are few in management because of their very low levels of education.

Takavinga Scheme main livelihood activities are ranked in the following order; dryland crop production; Livestock production (cattle, goat and Poultry); Crop production in the irrigation scheme and fishing. Of the 15 hectares, only 6.2 hectares are developed at 0.2 hectares per family for 30 beneficiaries. There is also a demonstration plot of 0.2 hectares. The main gender challenges in the irrigation scheme are that; the irrigation scheme is not properly fenced, they use live fencing such as tree branches and its repaired regularly of which women find it cumbersome. They guard their crops from cattle and wild animals. They take turns to guard at night and households with only women are struggling. On siphoning water from the dam to the field, at times they encounter airlock and they will have to carry water in buckets to clear the airlock. The process is ponderous especially for women. At times they irrigate in the night, female plot holders find it difficult.

Cross-cutting social profile for RACP

- Rural wards are youthful with high dependency ratios; migration drains male labour leaving women to manage farm and domestic work.
- Agriculture dominates with seasonal reliance on casual labour, ASM or fishing. Irrigation schemes and post-harvest centres can stabilise incomes.

- Women drive horticulture and local trade but face barriers to land rights, finance and leadership; youth need skilling and entry points in O&M, digital agriculture and logistics.
- Poverty is highest in drought-prone or remote wards and in floodplains. Vulnerable groups include female-headed and child-headed households, PwD, elderly carers, farm workers and flood-exposed communities.

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Vulnerable Groups

Mashonaland West has a mixed rural economy where household incomes rely on irrigated agriculture, casual labour, small livestock production and informal trading. Poverty levels remain moderate to high in parts of Zvimba, Chegutu and Sanyati, with limited off-farm employment opportunities and persistent barriers to accessing finance, inputs and stable markets. The performance of the Chomutamba, Lazenby, Shamrock B2, Seke Sanyati, Chiwirirano and Takavinga irrigation schemes strongly influences local food security, as many households depend on these schemes for both consumption and income generation. Disruptions to water availability, markets or infrastructure therefore have direct livelihood impacts.

Vulnerable groups in the project areas include women farmers with limited land rights, youth with restricted access to capital and productive resources, elderly-headed households, chronically ill persons, child-headed households and people living with disabilities. These

groups face constraints in participating fully in irrigation activities due to labour demands, financial barriers, limited decision-making power and exposure to climate shocks. Households living near degraded catchments or in dryland sections of Sanyati and Chegutu are especially sensitive to livelihood disruptions when irrigation output declines. Strengthening safety nets, ensuring equitable access to scheme benefits and improving market participation are therefore essential for reducing vulnerability across the province.

Overall Socio-Economic Insights for ESP Integration

Across these districts, the socio-economic baseline demonstrates that agriculture remains the dominant livelihood yet is constrained by climate variability, infrastructure decay, market barriers, poverty and gender inequalities. Irrigation schemes are essential economic anchors, providing opportunities for higher incomes, stable food supplies and rural employment. However, these opportunities are unevenly distributed and often limited by governance weaknesses, poor roads, high input costs and inadequate access to finance.

The ESMP should therefore incorporate socio-economic safeguards that address livelihood vulnerability, social inclusion, market integration, infrastructure resilience and equitable benefit sharing among women, youth and vulnerable households.

4.1.7 Safety Baseline for RACP Target Districts

Zvimba District

The road network is primarily composed of unpaved gravel roads, which are prone to erosion and become slippery during the rainy season. This increases the risk of accidents, particularly for heavy vehicles transporting agricultural goods. Within agricultural schemes, roads are often unmarked and shared by pedestrians, livestock, and tractors, creating a high risk of accidents. Poorly maintained irrigation infrastructure also poses risks to both workers and residents. Emergency response times are significantly delayed due to the distance from healthcare facilities, with many communities located more than 20 kilometers from the nearest clinic.

Chegutu District

The rural road conditions are subpar, especially following rains, leading to flooded and eroded roads that increase the likelihood of vehicle accidents, particularly for agricultural transport. The absence of clear signage and poorly maintained infield roads expose pedestrians and livestock to traffic hazards. Many rural pathways are shared with agricultural machinery, which

raises the risk of collisions. Access to healthcare services is often hampered by poor road conditions, resulting in long response times for emergencies. Some areas are more than 30 kilometers from medical facilities, complicating timely emergency care.

Mhondoro-Ngezi District

Roads in Mhondoro-Ngezi are often unpaved and can become impassable during the rainy season, presenting hazards for both vehicles and pedestrians. Heavy mining traffic exacerbates safety risks on already narrow roads. Infield roads are frequently unmarked and congested with mixed-use traffic (pedestrians, livestock, machinery), increasing accident risks. Some roads pass over aging infrastructure that may be at risk of collapse. The long distances to emergency services add delays to response times, with many irrigation schemes located over 20 kilometers from the nearest clinic or police station.

Sanyati District

The roads are generally unpaved and subject to seasonal damage, making them hazardous, particularly for large agricultural vehicles and during heavy rains when visibility is reduced. Agricultural areas often lack proper signage and infrastructure, leading to frequent pedestrian accidents as roads are shared with farm machinery and livestock. Potholes and uneven surfaces further complicate safety. Emergency response is hindered by long distances and poor road conditions, with some rural communities being isolated during the rainy season, making access to healthcare and safety services challenging (see summary in Table 16).

Table 16: Summary Table: Safety Baselines

District	Road Safety Challenges	Infield Safety Issues	Emergency Access Issues
Zvimba	Gravel roads prone to erosion	Unmarked roads, shared use with livestock	Delays due to distance to clinics (20+ km)
Chegutu	Poorly maintained roads, prone to flooding	Congested pathways, lack of signage	Long distances to health facilities (30+ km)
Mhondoro-Ngezi	Unpaved roads, heavy mining traffic	Congested, unmarked roads, aging infrastructure	Delayed response times, many schemes >20 km away
Sanyati	Unpaved roads, seasonal damage	Lack of signage, shared use with machinery	Poor access during rainy seasons, long distances

This safety baseline overview highlights mobility and access challenges across the districts, emphasizing the need for improved road infrastructure, clear signage, and efficient emergency response systems to enhance safety for residents.

4.1.8 Security Baseline for RACP Irrigation Scheme – Mashonaland West

Security across the RACP target schemes shows common patterns associated with rural isolation, ageing infrastructure, limited policing presence, and inadequate fencing around irrigation assets. Most schemes are located far from service centres and rely on local leadership structures for conflict resolution and informal security monitoring. Across the province, theft of irrigation infrastructure is a persistent problem, particularly targeting transformer components, solar panels, pumps, fuel, and aluminium pipes. Vandalism of electrical infrastructure is a concern in

The security baseline for the RACP irrigation schemes presents several critical challenges across the different locations. In **Chomutamba**, high occurrences of theft related to irrigation infrastructure, such as pipes and fittings, alongside frequent vandalism of electrical components, pose significant security risks. Inadequate fencing leaves the site vulnerable to unauthorized access and livestock intrusion, compounded by limited police accessibility due to its remote location.

Similarly, **Chiwirirano** faces serious vulnerabilities with the irrigation assets being at risk of theft, particularly when activity is low. The absence of secure fencing around pump and storage areas exacerbates this risk, while disputes over water access can escalate tensions within the community, highlighting the need for stronger governance mechanisms. Furthermore, the lack of adequate lighting and monitoring systems around critical infrastructure increases the likelihood of nighttime incidents.

Takavinga also experiences theft and tampering issues, particularly involving irrigation fittings and motorized equipment. Weak physical barriers open the way for unauthorized individuals, and water allocation disputes can trigger conflicts among community members. Wildlife presence poses additional risks, damaging crops and threatening farmer safety.

In **Lazenby**, persistent unauthorized access leads to theft of tools and equipment, with an absence of proper fencing around sensitive areas, such as pump stations. Environmental risks,

particularly bushfires, present significant threats to both crops and irrigation infrastructure, while long distances to law enforcement hinder emergency response.

Seke Sanyati struggles with high incidences of theft of irrigation infrastructure, along with weak governance structures and lack of clear boundaries contributing to vandalism. Limited policing presence, combined with long response times, worsens the security situation, necessitating attention to community dynamics and grievances about water allocations. Similarly, **Shamrock B2** is vulnerable to theft during periods of low supervision, with insufficient lighting increasing risks of vandalism at night. Shared roads and pathways with livestock and pedestrians further complicate safety concerns, while lengthy travel distances to emergency services impede timely responses. The consolidated Table 17 below summarises the key security challenges across the six irrigation schemes.

Table 17: Key Security challenges across the Irrigation schemes

Scheme	Key Security Issues
Chomutamba	Theft and vandalism of irrigation infrastructure; inadequate fencing; limited police access.
Chiwirirano	Risk of theft; unsecured areas; community tensions over water access; lack of lighting.
Takavinga	Theft of fittings and equipment; weak security measures; conflict potential over water; wildlife risks.
Lazenby	Unauthorised access and theft; environmental risks from bushfires; poor emergency access.
Seke Sanyati	High theft incidences, weak governance; limited policing presence; community dynamics issues.
Shamrock B2	Vulnerability to theft; poor lighting; mixed-use road hazards; long distances to emergency services.

This comprehensive overview underscores the urgent need for targeted interventions to enhance security and protect irrigation infrastructure across the RACP schemes.

Security Concerns Related to Women, Wildlife, and Boundary Disputes

The security landscape for irrigation schemes in the targeted districts presents several interconnected issues, particularly concerning women's safety, wildlife interactions, and boundary disputes (see Table 18).

Security for Women:

Women involved in agricultural activities often face heightened vulnerabilities, especially when accessing fields early in the morning or late in the evening. The isolation of certain irrigation schemes exacerbates the risks of gender-based violence and harassment. Cultural norms sometimes limit women's mobility, but their essential roles in farming and household responsibilities make it necessary for them to travel long distances. Implementing measures such as improved lighting along pathways and community awareness programs can help mitigate these risks.

Wildlife Interactions:

Wildlife poses a significant threat to both crops and personal safety in rural areas. Encounters with animals such as elephants and other large wildlife can lead to serious injuries or fatalities. Farmers working near water sources or irrigation canals are particularly susceptible to these threats. Additionally, wildlife can damage crops, leading to economic losses for households. Strategies such as community education on wildlife behavior and the establishment of safe distances from wildlife corridors are vital in reducing these risks.

Boundary Disputes:

Boundary disputes often arise in irrigation schemes, particularly where plot demarcations are unclear or where resettlement patterns place new households adjacent to existing infrastructure. These disputes can exacerbate tensions among community members and lead to conflicts over land and water access. Inadequate governance and oversight systems further complicate these issues. Establishing clear boundaries, improving communication among community members, and involving local leadership in conflict resolution can help address these disputes effectively.

Table 18: Summary Table of Security Concerns

Aspect	Key Issues and Concerns
Security for Women	Heightened risks of gender-based violence, especially during early/late travel; need for improved lighting and awareness programs.
Wildlife Interactions	Encounters with dangerous wildlife increasing risk for farmers; crop damage leading to economic losses; community education on wildlife behavior needed.
Boundary Disputes	Unclear plot demarcations leading to conflicts; inadequate governance complicating resolution; need for clear boundaries and improved communication.

These security concerns (Table 18) highlight the necessity for targeted interventions and community engagement to create safer environments for women, address wildlife threats, and resolve boundary disputes within irrigation schemes.

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** High incidents of theft and vandalism concerning irrigation assets, including pipes, fittings, electrical components, and equipment.
- **Inadequate Physical Security:** Weak physical security infrastructures, such as insufficient fencing and poor lighting, contribute to unauthorized access and security breaches.
- **Community Conflicts:** Boundary disputes and conflicts over water access can escalate tensions within communities, impacting social cohesion.
- **Women's Safety:** Women face increased risks of gender-based violence while traveling to and from agricultural fields, especially during vulnerable times.
- **Wildlife Threats: Issue:** Encounters with wildlife pose risks to both personal safety and agricultural productivity, particularly near water sources and irrigation canals.
- **Emergency Response Limitations:** Long distances to emergency services and difficult access prevent timely response to security incidents or accidents.
- **Limited Governance and Oversight:** Absence of structured security protocols and trained personnel weakens overall security effectiveness.
- **Environmental Risks:** Natural threats such as bushfires can endanger both crops and irrigation infrastructure, straining community resources.

These consolidated security themes emphasize a holistic approach to safeguarding RACP irrigation schemes through community engagement, infrastructure improvement, and effective governance. Integrating these strategies into the Environmental and Social Management Plans (ESMP) will enhance safety and resilience within the irrigation schemes.

4.1.9 Gender and Cultural Baseline

Zvimba District

Zvimba is a predominantly rural district where women play a crucial role in agriculture, contributing significantly to planting, weeding, and harvesting. Despite their critical involvement, men often dominate decision-making related to crop selection, resource allocation, and irrigation schedules. Women's representation in leadership roles within agricultural committees is limited, reflecting broader gender disparities in authority.

Cultural norms are heavily influenced by Shona traditions, which emphasize respect for elders and male authority within households. These traditions may restrict women's participation in community decision-making processes and land access, as plots are frequently allocated through male relatives. Addressing gender inequalities requires targeted support for women in leadership roles and initiatives that empower women's decision-making in agricultural practices. Enhancing women's access to irrigation resources and providing a platform for their voices in community discussions are essential for promoting gender equity.

Chegutu District

In Chegutu, women are primarily responsible for food production, especially in subsistence farming, yet they face numerous barriers in accessing resources. Men often control financial decisions and tend to dominate higher-value cash crops, reinforcing economic disparities. Traditional norms in Chegutu are similar to those in Zvimba, with patriarchal structures influencing social and economic interactions. Gender-based violence remains a concern, often exacerbated by economic pressures and limited access to support networks.

Promoting gender-sensitive agricultural practices and increasing women's access to credit and training can enhance their economic empowerment. Community initiatives focused on addressing gender-based violence and fostering inclusive decision-making are crucial for gender equity.

Mhondoro-Ngezi District

Mhondoro-Ngezi has a slight female majority, but women are generally underrepresented in technical and leadership roles within agricultural schemes. They often bear the brunt of agricultural labor while having limited authority over financial decisions and resource management. The district's cultural practices are rooted in Korekore traditions, where male

elders play a significant role in decision-making processes. Women frequently face barriers related to land access and inheritance rights, which further perpetuates gender disparities.

Engaging traditional leaders in gender advocacy efforts can help improve women's access to land and resources. Programs promoting women's education and leadership training within agricultural cooperatives are essential to bridge existing gender gaps.

Sanyati District

Sanyati District has a diverse rural population, with many female-headed households emerging due to male migration for work opportunities. Women are responsible for managing food crops, livestock, and household duties; however, they often lack access to decision-making power and financial resources. Cultural norms that emphasize male authority can limit women's agency and control over agricultural production. Additionally, traditional practices around land rights can hinder women's ability to secure plots independently.

Supporting female-headed households with targeted interventions, such as access to credit and training in agricultural practices, can enhance their economic stability. Initiatives to involve women in local governance and decision-making forums are also critical to fostering gender equity. By addressing these gender and cultural dynamics, interventions can foster improved equality and empower women across Zvimba, Chegutu, Mhondoro-Ngezi, and Sanyati Districts (see *Table 19 and Table 20*).

Table 19: Gender and Cultural Snapshot

District	Gender Dynamics	Cultural Context	Key Implications for RACP
Zvimba	Women are involved in agriculture but lack leadership roles.	Shona traditions emphasize male authority.	Increase women's representation in leadership and decision-making processes.
Chegutu	Women handle subsistence farming but face barriers to resources and training.	Patriarchal norms are prevalent.	Promote financial literacy and training programs for women to enhance empowerment.
Mhondoro-Ngezi	Women are active in agricultural production but are underrepresented in leadership.	Korekore traditions limit women's rights and agency.	Engage traditional leaders to advocate for women's inclusion in decision-making and land rights.
Sanyati	Rise in female-headed households; women manage crops but lack decision-making authority.	Male authority restricts women's agency.	Support female-headed households with access to resources and training to enhance economic stability.

Table 20: Reflection of Gender and Cultural Dynamics in Irrigation Schemes

Scheme	Gender Dynamics Reflection	Cultural Context Reflection
Chomotamba	Limited female representation in decision-making roles.	Cultural norms discourage women from speaking up in community meetings.
Chiwirirano	Women face barriers in accessing irrigation resources and training.	Traditional roles limit women's participation in the scheme's management.
Takavinga	Female-headed households manage plots but encounter land rights issues.	Traditional practices favor male landholders, creating hurdles for women.
Seke Sanyati	Male dominance in decision-making affects resource allocation.	Norms restrict women's influence over irrigation scheduling and resources.
Lazenby	Women's voices are marginalized in community decisions.	Cultural expectations shape women's roles in agricultural activities.
Shamrock	Lack of access to resources and training for women farmers.	Gender roles deter women from active participation in community decision-making.

4.1.11 Health Overview

Zvimba District

Zvimba District faces several health challenges that significantly affect its population of approximately 175,000. Access to healthcare services is often limited due to infrastructural inadequacies and the distance to health facilities. Common health issues include chronic diseases, maternal and child health concerns, and high rates of water-borne illnesses. The prevalence of HIV is significant, compounded by factors such as mobility for employment and lack of awareness. Nutritional deficiencies, especially in children under five, are higher than national averages.

RACP Planning: To enhance health outcomes in Zvimba, the RACP should focus on improving healthcare access by investing in healthcare infrastructure, particularly in remote areas. Awareness campaigns about HIV and water-borne illnesses should be prioritized, along with nutritional support programs targeting vulnerable groups such as mothers and young children. Collaboration with local health authorities and community organizations can facilitate effective health education and service delivery.

Chegutu District

The health landscape in Chegutu District, with approximately 120,000 residents, is characterized by high rates of HIV and water-borne illnesses, reflecting broader public health challenges. Access to healthcare is critical, as many residents live far from clinics and hospitals, resulting in delays in treatment. Malnutrition is prominent among vulnerable populations, particularly children and pregnant women. Fluctuations in malaria incidence are linked to seasonal changes and inadequate sanitation.

RACP Planning: The RACP should implement comprehensive health initiatives that improve healthcare access, particularly for rural communities. This can include mobile health clinics and strengthening existing healthcare facilities. Enhancing sanitation and hygiene practices through community education and infrastructure development will reduce water-borne illnesses. Additionally, targeted interventions focusing on nutritional support for families, alongside malaria prevention strategies, are essential for improving overall health in the district.

Mhondoro-Ngezi District

Mhondoro-Ngezi, with a population of approximately 140,994, faces significant health challenges rooted in chronic undernutrition, maternal health issues, and a high prevalence of HIV. The healthcare infrastructure struggles to meet demand, and many residents encounter barriers to accessing services. Malaria poses a persistent threat, especially during rainy seasons when conditions favor mosquito breeding.

RACP Planning: RACP efforts should prioritize strengthening healthcare facilities and services, particularly maternal and child health programs that can provide essential care and education. Implementing effective malaria control strategies, including distribution of insecticide-treated bed nets and community health education, will be critical. Engaging community health workers can facilitate awareness and promote healthy practices, while nutrition programs can address food insecurity and improve dietary health among vulnerable populations.

Sanyati District

Sanyati District has a population of around 210,000, where health challenges are exacerbated by poverty and limited healthcare access. Water-borne diseases like cholera are prevalent due to inadequate sanitation and unsafe water sources. Nutritional deficiencies, particularly in

female-headed households, contribute to broader health issues. The incidence of HIV is a concern, influenced by labor migration patterns.

RACP Planning: To improve health outcomes in Sanyati, RACP initiatives should focus on enhancing water, sanitation, and hygiene (WASH) programs to ensure safe water access and sanitation facilities. Food security initiatives should be implemented to support vulnerable households, particularly women. Increasing access to healthcare services through community health outreach and education can improve knowledge of disease prevention and treatment options, addressing both nutritional and health needs effectively.

By addressing these health challenges through targeted RACP planning, the districts can significantly improve health outcomes for their populations and create a more resilient community structure.

4.2 Stakeholder Engagement

4.2.1 Justification 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 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.

4.2.2 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.

4.2.3 Summary of Key Stakeholders Findings

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.

Community concerns include damage from elephants, delayed payments for produce, a deteriorating canal system, and the need for improved fencing to protect crops from livestock. There are requests for a functioning borehole for clean water, the construction of toilets and a community hall, and rehabilitating roads. The community advocates for expanding the irrigation scheme to benefit local youth and children, renovating the silted dam, and preventing social issues arising from insecurity at night. They also emphasise the importance of respecting cultural heritage and managing the impact of nearby wildlife from the Chegutu Safari Game Park.

Expectations

- Construction of a ware house.
- Revitalisation also helps us to make money and improve our income flows.
- Cultural issues were addressed at the inception of the irrigation scheme of the source of water is being abstracted at a sited of cultural significance. The scheme members continue to respect these practices to ensure water supply.
- The road to the irrigation scheme need to be fenced.
- The project should be implemented quickly, past activities take long.
- We need flood floods.
- Request for solar powered irrigation to revive the scheme
- Equipment to cut down trees inside the field and tractors
- Infrastructure restoration and improvements
- Requesting for security fence
- Equipment rehabilitation, replacement and upgraded
- Installation of boreholes for drinking water

4.2.3.1 Community meetings

Community meetings were held in the three districts, Zvimba, Chegutu and Sanyati Irrigation schemes, see Table 21. The meetings were held in the presence of SIRDC, SACP representative and community leadership. The project was explained so that the communities would get an understanding of the community engagement meetings.

Table 21: List of Community Meetings Held

Irrigation Scheme	Mode of consultation	Details	Date
Chomotamba Irrigation	Community meeting	Minutes and Registers (Appendix 12, Appendix 18)	06/10/25 Start time: 0930hrs
Shamrock B1&2 Irrigation	Community meeting	Minutes and Register (Appendix 14, Appendix 20)	06/10/0 Afternoon Start: 1520hrs End:1630hrs
Lazenby Irrigation	Community meeting	Minutes and Registers (Appendix 13, Appendix 19)	06/10/25 Start time: 1100hrs End: 1230hrs
Takavinga Irrigation	Community meeting	Minutes and Registers (see Appendix 21, Appendix 15)	07/10/25 Morning Start: 1030hrs End: 1118hrs
Seke Sanyati Irrigation	Community meeting	Minutes and Registers (Appendix 16, Appendix 22)	07/10/25 Start:1230hrs End:1344hrs
Chiwiriano Irrigation	Community meeting	Minutes and Registers (see Appendix 17, Appendix 23)	07/10/25 Start:1658 End: 1800hrs

Table 22: Key Stakeholders Consulted

Name	Organisation	Mode of consultation	Contact
Mrs. Mabango	Zvimba DDC	Questionnaire	0779234760/ 0672152029
Mr Shumba	Zvimba RDC	Questionnaire	0775205003/ 08677007012
Mr. Kadaira	Chegutu DDC	Questionnaire	0718424574
Mr. Zvogbo	Chegutu RDC	Questionnaire	0772332050/ 0682152257
Mr Matope	Sanyati RDC	Questionnaire	0682122408
Tildah Dube	Sanyati DDC	Questionnaire	0682122038

Table 23: Responses of Key Stakeholders

District	Benefits, Views and Concerns	Mitigation Measures
Sanyati RDC	<ul style="list-style-type: none"> Improved Food Security leads to better nutrition and food availability. Infrastructure Development to be upgraded i.e. water systems 	<ul style="list-style-type: none"> Consult with traditional leaders and locals to ensure cultural respect. Implement sustainable strategies to balance community needs.

District	Benefits, Views and Concerns	Mitigation Measures
	<p>and roads improve access to resources and markets.</p> <ul style="list-style-type: none"> ● Skills transfer to empower farmers, to increase productivity and earnings. ● Community Cohesion to through collaborative projects and business centres. ● Creation of jobs through processing plants and retail outlets. ● Cultural Impact by newcomers could threaten traditional customs and social structures. ● Environmental Degradation ● Dependence on External Support - over-reliance on outside expertise may undermine local practices. 	<ul style="list-style-type: none"> ● Establish guidelines to prevent degradation and biodiversity loss. ● Provide ongoing training to reduce dependence on external resources. ● Consider cultural and environmental impacts in project design. ● Assess and plan to minimize disruption to existing structures. ● Monitor water quality and ecosystem health to address impacts. ● Engage locals in decision-making to mitigate displacement concerns and ensure fair benefits. ● Create mechanisms to distribute project benefits equitably among community members.
Zvimba	<ul style="list-style-type: none"> ● Full utilisation of land as irrigation farming facilities encourages growing of crops and vegetable throughout the season. ● During project implementation if they discover cultural sites proponent must report to tradition leaders ● Employment for the youth ● Improves agricultural yields 	<ul style="list-style-type: none"> ● Afforestation will irrigate the landscape and enhances soil conservation ● Engage tradition leadership through the DDC's office ● Consider local youth for the construction jobs
Chegutu	<ul style="list-style-type: none"> ● Employment creation ● Upgrading of feeder roads ● Construction of rainwater harvesting facilities 	<ul style="list-style-type: none"> ● Further consultations of cultural leaders of the communities ● Encourage afforestation ● Water conservation

District	Benefits, Views and Concerns	Mitigation Measures
	<ul style="list-style-type: none"> ● Installation of multi hazard early warning systems ● Deforestation ● Land degradation ● Change of land use ● Further consultations of cultural leaders of the communities 	<ul style="list-style-type: none"> ● Environmental protection

a) Chomutamba

The meeting on the Resilience Agriculture Cluster Project (RACP) began with introductions from the SACP and SIRDC teams (Plate 15). The project promises several benefits, including a steady power supply through solar energy, which will reduce farming costs and support horticulture crops that require constant water. The community's collaborative efforts have helped maintain the irrigation scheme, showcasing their commitment to making the project a success despite limited resources. However, significant challenges remain, such as theft leading to a shortage of irrigation pipes, outdated equipment, and water supply issues that hinder plant growth. Safety concerns arise from night work, necessitating better lighting and security, along with a lack of drinking water and sanitation facilities. Expectations for the project include the construction of a warehouse, economic revitalisation, respect for cultural practices related to water sources, timely implementation of activities, and flood management measures.



Plate 15: Chomutamba Irrigation

b) Lazenby Irrigation Scheme

At the community meeting (Plate 16) it was noted that the Resilience Agriculture Cluster Project (RACP) aims to enhance the SACP by equipping farmers to better cope with climate change impacts like droughts and severe storms. Key focuses include road rehabilitation, market development, climate-smart agriculture, solar-powered irrigation, and restoring land and water resources. However, concerns persist regarding funding availability, slow program implementation, and insufficient farmer involvement in decision-making. Farmers report challenges with outdated equipment and decreasing yields, alongside frustrations about delayed financial support. They emphasise the need for a solar irrigation system and better monitoring of environmental issues, such as deforestation. Additionally, discussions highlight the importance of diversifying crops and employing local labour while avoiding detrimental planting practices. The project's success relies on timely funding and improvements to infrastructure.



Plate 16: Lazenby Irrigation Scheme

c) Shamrock B2 Irrigation Scheme

The meeting (Plate 17) started with introductions of the SIRDC and RACP members. A brief background of the project was given to the community present. The meeting discussed the positive impacts of the project, such as job creation for locals, land rehabilitation, a consistent solar power supply, and improved livelihoods that could reduce youth drug use. However, several concerns were raised, including the inadequacy of a 100-horsepower pump for the 33-hectare land, dam siltation, ageing irrigation infrastructure, and pipe leakages. Additional

issues included the lack of toilets and clean drinking water, delayed payments for farm produce, the absence of nearby early childhood development (ECD) schools, poor road access, and social challenges stemming from an influx of new residents. Proposed expectations and mitigation measures included timely government payments to farmers, investment in new equipment, construction of ECD schools, and measures to address dam siltation. The need for improved roads, fencing around the irrigation scheme, and prohibiting booking houses to safeguard the community, especially children, was also emphasised.



Plate 17: Community meeting at Shamrock B2 Irrigation Scheme

d) Seke Sanyati Irrigation Scheme (Plate 18)

SIRDC has been engaged to conduct an Environmental and Social Management Plan (ESMP) for the upcoming Resilience Agriculture Cluster Project (RACP), which aims to enhance the SACP while addressing climate change mitigation. The project focuses on climate proofing, road rehabilitation, solar-powered irrigation, promoting equal opportunities, youth inclusion, afforestation, water harvesting, and land expansion. Key concerns raised include the urgent need for project completion, the utilisation of 60 hectares of unused land, the preference for pivot irrigation, and the rehabilitation of infrastructure and equipment. There are calls for a security fence, road repairs, electricity installation by ZESA, and the establishment of a warehouse for tools. Community members also emphasised the importance of solar power for clean water access, the need for a tractor and plough, and proper land levelling. It was noted that contractors should avoid interfering in community issues and focus on their tasks. The project is expected to improve livelihoods, enhance food security, create local jobs, and develop infrastructure, with grievance redress mechanisms proposed to address community concerns effectively.



Plate 18: Seke Sanyati Irrigation Scheme

e) Chiwirirano Irrigation Scheme (Plate 19)

The project focuses on implementing solar irrigation, promoting smart agriculture, rehabilitating roads, supporting afforestation, ensuring equal opportunities, restoring land and water sources, and enhancing market access. However, community members raised several concerns and expectations. They need reliable equipment for irrigation, as the ZESA line is down, and have requested solar-powered systems, boundary fencing, and tools to manage tree growth in fields. The poor state of roads necessitates rehabilitation, and farmers also highlighted the need for tractors, ploughs, toilets, and borehole water.

Social issues and disease spread were noted, along with the cultural significance of a sacred Baobab tree, requiring consultation with traditional leaders. A secure environment to reduce theft, regular training workshops on field management, and effective leadership within the farming group were emphasised. Additionally, concerns about artisanal mining in the fields, soil erosion prevention, and the establishment of rules for the scheme were mentioned. Farmers expressed frustration over previous programs that failed to deliver tangible results, urging the need for feedback after project failures to maintain their interest and trust.



Plate 19: Chiwirirano Irrigation Scheme

f) Takavinga Irrigation Scheme (Plate 20)

The Resilience Agriculture Cluster Project (RACP) aims to enhance community development by building upon the foundations laid by the SACP, with a focus on addressing climate change impacts. SIRDC has been engaged to develop an Environmental and Social Management Plan (ESMP) for the project, which seeks to implement various initiatives, including the rehabilitation of feeder roads, solar irrigation, market access for produce, afforestation, smart agriculture practices, equal opportunities for men and women, and climate proofing.



Plate 20: Takavinga Irrigation Scheme

Concerns and expectations from the community include damage to fencing by elephants, delayed payments to farmers for produce supplied to the GMB, and long-standing follow-ups since 1992 without assistance. Farmers noted that the current canal system is in disrepair, complicating irrigation efforts, and emphasised the need for improved fencing to protect crops from livestock. There is also a call for a functioning borehole for clean drinking water, the construction of toilets, and a community hall for meetings.

Additionally, the community seeks rehabilitation of feeder roads and expansion of the irrigation scheme, which they believe will benefit local youth and children. They expressed the need for renovations to the silted dam and contour ridges to prevent siltation. Concerns about social issues arising from youth spending nights in the fields due to security concerns were highlighted, along with a desire to ensure that cultural heritage is respected. The proximity of the Chegutu Safari Game Park, 3-5 km away, was noted as a source of elephant incursions.

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 method differentiates between **Impacts** (the certain or highly probable consequences resulting from a project activity) and **Risks** (the probability of an adverse event occurring due to internal or external factors, often requiring contingency planning). The severity of each is assessed across the Planning, Construction, Operation, and Decommissioning phases. 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.

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.

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.

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.

5. Training and Capacity Building Activities

Large training events for farmers and scheme committees will concentrate people at single venues. Temporary facilities, water supply and sanitation measures will be needed to prevent disease transmission and ensure safe working conditions.

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.

7. Waste management and pollution

Irrigation schemes generate various types of waste, including agricultural waste, crop residues, weed), plastic waste (used irrigation pipes, containers) for example worn out valves at Choumtamba Irrigation scheme; organic waste (crop residues, animal manure,) and chemical waste (pesticides, herbicides, fertilisers). If not managed properly, these wastes can lead to environmental issues like water pollution, soil degradation, and air pollution. Implementing sustainable practices like efficient irrigation systems, integrated pest management and waste recycling can help minimise waste generation and mitigate its impacts.

8. Biodiversity and ecosystem pressures

The documented deforestation for tobacco curing and brick moulding degrades the local woodland ecosystem (dominated by Musasa trees). This habitat loss, combined with potential chemical runoff, puts pressure on terrestrial and aquatic biodiversity. Communities need education on increasing reforestation for the conservation of woodlands and its inhabitants. In Takavinga Scheme there is evidence of brickmaking activities by locals in the Dubugwane dam's catchment area. In Chiwirirano scheme there is significant stream bank cultivation occurring along the Munyati river. Illegal gold panning is a main livelihood activity in the area which is causing significant silting.

9. Water resource conflicts

Water resources conflict on irrigation schemes arise from competing demands, inefficient water use and poor management which leads to reduced crop yields, water scarcity and social and economic impacts. Implementing integrated water management, promoting water saving technologies and building capacity for effective governance can help mitigate these conflicts and ensure sustainable irrigation schemes. Conflicts are also highlighted in Seke Sanyati, Lazenby and Takavinga schemes where there is up stream bank cultivation which leads to possible siltation and water pollution. Chomutamba, irrigation relies on Manyame/Hunyani dams are also used for domestic water supply to towns and cities with irrigation supply being the major use. Water hyacinth is a major threat to the dams.

10. Cultural heritage and land use conflicts

Conflicts of this nature stem from competing demands, inefficient use, and poor management. Sustainable practices and integrated management can help mitigate these conflicts. The Village head also plays a pivotal role in the management of the scheme as he assists in culture enforcement, environmental conservation, conflict resolution and general discipline in Shamrock B2 wildlife conflict with monkeys, baboons in crops and diseases in livestock.

11. Energy use and climate linkages

The schemes which entirely depend on the ZESA grid, suffers from severe load-shedding, a direct climate-linkage effect due to hydropower vulnerability. This causes crop losses and highlights a need for renewable energy integration for resilience.

12. Social Tensions and Equity Issues

Clear gender inequity exists, with women having less decision-making power and a higher labour burden. Disputes arise among beneficiaries due to stray livestock destroying crops. The IMC structure is mixed gender, but women are in subordinate roles (Vice Chairperson, Treasurer). Tensions also arise between farmers, communities and authorities whereby there is unequal distribution of benefits and costs among stakeholders especially the vulnerable and minority groups. The need for inclusion in decision making processes and equitable distribution of resources. The Seke-Sanyati Irrigation scheme women and men do not have equal opportunities on attending of meetings and trainings, the men attend and women and children of plot holders are not allowed to attend and participate in some crucial meetings of which they feel their contributions are critical. In Shamrock B2 women are not in the committee because

they do not have offer letters, affecting decision making as women are not represented. Chiwirirano irrigation scheme women and men do not have equal opportunities on attending of meetings and trainings, the men attend and this affects decision making as women's interests are not represented. In most of the irrigation schemes there is distribution of work though men do most of the technical work whilst women sell produce at the farm gate and man travel to distant market.

13. Occupational health risks

Farmers face health threats during cold winter night irrigation shifts. The manual handling of heavy aluminium pipes poses injury risks, predominantly for women. Exposure to agro-chemicals during spraying is also another key health risk.

14. Cumulative impacts

The combination of ongoing deforestation, soil erosion, and agro-chemical use creates a cumulative negative impact on dam's catchment, reducing water quality, soil quality and lowered storage capacity, which undermines the long-term viability of the irrigation scheme. Lazenby, Seke Sanyati and Takavinga are at risk due to upstream bank cultivation which leads to possible siltation and water pollution. Chomutamba which draws water from Manyame/Hunyani is also at risk with water hyacinth which is a major threat to the dams.

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. This approach provides a transparent, repeatable method to prioritise mitigation measures. The following criteria were applied in Table 24:

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) – 10 (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 (SP)** = (Magnitude + Duration + Extent) * Probability

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 to critical impact needing intensive management and residual risk analysis, requires redesign, offsets or project alternatives.

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 presents the identified impacts for each project phase.

Table 25: RACP Project Impacts

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/-)
PLANNING PHASE			
Selection of irrigation design and layout (OS1, OS2, S1, S6)	Social inclusion	Risk of excluding women, youth and vulnerable households if design and allocation decisions are not participatory.	–
Determining abstraction points and water supply (OS1, OS3, S1, S2)	Water resources	Possible pressure on upstream and downstream water users where cumulative withdrawals are not assessed.	–
Defining scheme footprint and boundaries (OS2, S7)	Land access	Restrictions to community pathways, informal gardens or grazing routes may create conflict.	–
Designing canals, pipelines and pump stations (OS3, S2)	Biodiversity	Disturbance to riparian vegetation, wetland pockets or sensitive species if ecological data is not integrated.	–
Planning drainage and water control structures (OS1, OS4, S5, S9)	Climate and disaster risk	Increased exposure to flooding, runoff or waterlogging if climate risks are not considered in design.	–
Identifying borrow pits and stockpile sites (OS1, OS3, S2)	Soil and landscape	Potential soil degradation, erosion and disturbance of microhabitats.	–
Labour and contractor planning (OS5, S4)	Labour conditions	Risk of labour influx, discrimination, or weak OHS arrangements.	–
Designing gender and SEAH-sensitive governance (OS1, OS2, OS5, S3, S6)	Gender and protection	SEAH risks increase if safe access, lighting and representation are not built into planning.	–
Planning construction access routes (OS4, S5)	Community safety	Traffic safety concerns for schoolchildren, pedestrians and livestock.	–
Early consultations and disclosure (OS1, S6)	Participation	Risk of mistrust or conflict where consultations lack inclusivity or transparency.	–

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/-)
GRM planning and early dispute systems (OS1, OS2, OS5, S6, S7)	Grievances	Lack of early grievance management may escalate disputes.	–
Climate screening and resilience planning (OS1, OS4, S9)	Climate resilience	Infrastructure may underperform if hazards such as droughts, floods or heat stress are underestimated.	–
Planning for agrochemical management (OS4, S5)	Pollution	Potential future contamination from pesticides or fertilisers if poor planning persists.	–
Cultural heritage reconnaissance (OS1, S3)	Cultural heritage	Risk of disturbing unrecorded cultural or spiritual features if chance-find procedures are absent.	–
Institutional and IMC planning (OS1, OS2, S1, S6)	Governance	Weak institutional clarity may affect scheme sustainability.	–
M&E systems development (OS1, S1)	Monitoring	Poor tracking of environmental and social performance where indicators are not established.	–
CONSTRUCTION PHASE			
Earthworks, excavation and canal lining (OS1, OS3, OS4, S2, S5)	Soil and land	Soil erosion, structural instability and disturbed surfaces during excavation.	–
Construction traffic and machinery operations (OS4, S5)	Community safety	Increased risk of accidents involving community members and livestock.	–
Workers' camps and contractor mobilisation (OS5, S4, S3)	Labour and SEAH	SEAH risks, labour rights violations or unsafe living conditions.	–
Fuel storage and chemical handling (OS4, S5)	Pollution	Hydrocarbon leaks may contaminate soil and water resources.	–
Construction noise and dust (OS1, OS4, S5)	Air quality	Increased respiratory irritation and discomfort for nearby communities.	–

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/-)
Vegetation clearance for access (OS3, S2)	Biodiversity	Loss of vegetation, wildlife disturbance or reduced habitat cover.	–
Foundation works near water bodies (OS3, S5)	Water quality	Elevated sediment loads affecting aquatic ecosystems.	–
Installation of pipelines and pumping units (OS4, S5)	Occupational safety	Potential for trench collapse, falling objects or machinery accidents.	–
Construction near cultural areas (OS1, S3)	Cultural heritage	Disturbance to unrecorded archaeological or cultural artefacts.	–
Temporary water abstraction (OS1, OS3, S2)	Hydrology	Temporary changes to downstream flow patterns.	–
Presence of non-local labour (OS5, S3, S4, S6)	Social stability	Community tension risks, petty crime or pressure on local services.	–
Waste generation during works (OS4, S5)	Waste	Accumulation of rubble, metal scrap, plastics and concrete waste.	–
Temporary disruption of access routes (OS4, S5)	Mobility	Reduced access for farmers, schoolchildren and health emergencies.	–
OPERATION PHASE			
Continuous water abstraction (OS1, OS3, S2, S9)	Water resources	Reduced river flow and pressure on aquatic ecosystems during the dry season.	–
Use of fertilisers and pesticides (OS4, S5, S2)	Pollution	Contamination risk for surface and groundwater from agrochemicals.	–
Long-term irrigation and drainage (OS3, S2)	Soil health	Waterlogging, salinisation and nutrient imbalance if drainage is inadequate.	–
Increased agricultural production (OS1, S1)	Livelihoods	Improved household food security, incomes and market participation.	+

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/-)
Functioning of improved irrigation infrastructure (OS1, S2)	Agricultural efficiency	Greater reliability in water delivery and improved crop performance.	+
IMC-led governance and operations (OS1, OS2, S6, S7)	Governance	Disputes may arise over water scheduling, fees or plot reallocation.	-
Operation staff presence (OS5, S4)	Labour	OHS incidents may occur where safety culture weakens.	-
Exposure to stagnant water (OS1, S5)	Community health	Increased malaria, bilharzia or water-borne disease risks.	-
Conflicts over water access (OS2, S7)	Social cohesion	Tensions during peak irrigation demand periods.	-
Improved market linkages (OS1, S1)	Livelihoods	Higher purchasing power and better engagement with buyers.	+
Climate-related disruptions (OS1, OS4, S9)	Climate resilience	Disruption to irrigation cycles from droughts, heatwaves or flooding.	-
DECOMMISSIONING PHASE			
Removal of pumps, pipes and structures (OS1, OS4, S5)	OHS	Injury risks during dismantling and heavy lifting.	-
Disposal of obsolete infrastructure (OS4, S5)	Waste and pollution	Potential contamination from oils, metals or hazardous materials.	-
Restoration of land surfaces (OS1, OS3, S2)	Landscape	Possible soil disturbance but opportunities for natural recovery if well managed.	+/-
Loss of irrigation benefit (OS2, S7)	Livelihoods	Reduced production and income if closure is unmanaged.	-
Formation of excavations or pits (OS3, S2)	Safety	Drowning hazards, mosquito breeding sites or injury risks.	-

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

Table 26: Cumulative Impacts

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/-)
Combined water abstraction across multiple schemes (OS1, OS3, S2, S9)	Water resources	Gradual reduction in flow volumes during dry seasons when several schemes draw simultaneously, affecting downstream users and ecosystems.	-
Expansion of irrigated land and intensified cropping across districts (OS1, S1)	Livelihoods	Sustained improvement in household food security and incomes from multiple functioning schemes.	+
Repeated pesticide and fertiliser use across multiple irrigation blocks (OS4, S5, S2)	Pollution	Long-term buildup of agrochemical residues in soils and waterways, increasing contamination risks.	-
Multiple construction sites operating within short timeframes (OS4, S5)	Community safety	District-wide increase in heavy traffic, construction noise and accident risks on shared rural roads.	-
Aggregated vegetation clearance from scheme rehabilitations (OS3, S2)	Biodiversity	Fragmentation of natural vegetation, reduced habitat connectivity and increased pressure on wildlife movement corridors.	-
Cumulative effects of soil disturbance from trenching, excavation and maintenance (OS1, OS3, S2)	Soil stability	Increased erosion, gully formation and sedimentation in streams across several catchments.	-

Project Activity (with OS & S triggered)	Aspect	Impact Description	Direction (+/-)
Combined effect of multiple schemes discharging into shared waterways (OS3, OS4, S5)	Water quality	Cumulative sediment loads and runoff from widely distributed infrastructure works affecting water clarity and aquatic life.	-
Simultaneous presence of non-local labour across multiple districts (OS5, S3, S4, S6)	Social stability	Increased district-level social tensions, pressures on local services, and heightened SEAH risks.	-
Multiple IMCs operating with different governance capacities (OS1, OS2, S6, S7)	Governance	Uneven scheme performance and increased conflict where governance capacity varies across schemes.	-
Cumulative change in drainage patterns from multiple rehabilitated schemes (OS1, OS4, S9)	Climate resilience	District-level increase in flood risk or waterlogging if drainage canals across schemes redirect water unsustainably.	-
Combined benefits of market linkage improvements from several irrigation schemes (OS1, S1)	Rural economy	Stronger local economies driven by increased volume of produce reaching district and provincial markets.	+
Aggregated canal water bodies across districts (OS1, S5)	Community health	Higher cumulative exposure to malaria vectors and waterborne diseases as canals and drains increase.	-
District-wide improvements in infrastructure reliability (OS1, S1)	Agricultural efficiency	More reliable production cycles, improved market consistency and expanded value chain participation.	+
Cumulative decline in natural wetlands from uncoordinated abstraction (OS3, S2)	Ecosystem services	Progressive wetland shrinkage reducing water purification, flood buffering and grazing resources.	-
Joint impact of multiple schemes on groundwater recharge (OS1, OS3, S2)	Hydrology	Reduced recharge in some zones due to concentrated withdrawals or poorly planned drainage systems.	-
Long-term increase in district-wide agricultural output (OS1, S1)	Livelihood opportunities	Strong, sustained growth in household incomes and district agricultural GDP driven by improved irrigation.	+

The significance of potential environmental and social impacts associated with the RACP was evaluated using the impact scoring approach. Each potential impact was scored for magnitude, duration, sensitivity, probability and spatial extent to produce a total score indicating its significance before mitigation. The same criteria were then applied after incorporating mitigation measures to determine the residual significance. Table 27 to Table 28Table 29 and to present the impact assessment and analysis for each project phase.

Table 27: RACP Project Impact Rating

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

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

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

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

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

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

6.0 MITIGATION MEASURES

Impact–Mitigation Matrix will cover 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

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Social inclusion (OS1, OS2, S1, S6)	Exclusion of women, youth, vulnerable households.	Conduct inclusive consultations; ensure 50 percent women and 30 percent youth; publish plot allocation criteria.	% women/youth attending; displayed notices.	Registers; minutes; photos.	Consultation meetings	400 / site	32	12,800
					Public notices	30 / notice	32	960
Water resources (OS1, OS3, S2, S9)	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	32	16,000
					Staff gauges	120 / gauge	32	3,840
Land access (OS2, S7)	Restricting grazing routes/footpaths.	Map pathways; design alternative routes; Install crossings.	Number of rerouted paths; crossings installed.	GIS maps; inspection logs.	GPS mapping	500 / scheme	32	16,000
Biodiversity (OS3, S2)	Encroachment into riparian/wetland areas.	Maintain 10–30 m buffer zones; plant indigenous vegetation.	Buffer zones marked; planted vegetation.	Maps; planting registers.	Indigenous seedlings	50/ ha	150	7,500
Climate & disaster risk (OS1, OS4, S5, S9)	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	32	25,600
					Pump house elevation	1,000 / unit	32	32,000
Soil & landscape (OS1, OS3, S2)	Erosion and borrow pit degradation.	Vetiver planting (2 rows/contour, 15 cm spacing); compacted rehabilitation.	Vetiver rows installed; pit closed.	Photos; inspection reports.	Vetiver grass planting	2 / meter	2,000 m	4,000
					Pit rehabilitation	300–600 / pit	1	300–600

Aspect (OS & S Triggers)	Impact Description	Detailed Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
Labour conditions (OS5, S4)	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	50 workers	2,500
Gender & protection (OS1, OS5, S3)	Increased SEAH risk.	SEAH Action Plan; SEAH training; solar lighting; separate toilets.	Training frequency; lighting installed.	SEAH logs; inspection notes.	SEAH training	500 / session	32	16,0500
					SEAH posters	10 / poster	32	320
Community safety (OS4, S5)	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	32	3,2000
Participation (OS1, S6)	Poor stakeholder engagement.	Implement SEP; hold quarterly meetings; provide vernicular translations.	Meetings held; translations available.	SEP; minutes.	Quarterly meetings	200 / meeting	32	6,400
					Translation	150 / document	3	450
Grievances (OS1, OS2, OS5, S6, S7)	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	32	6,400
					GRM box	80 / unit	32	2,560
Climate resilience (OS1, OS4, S9)	Unmanaged drought/flood risks.	Climate screening tool; culverts installed for bypass drainage.	Climate measures integrated.	Screening report; site photos.	Climate screening	1,000 / scheme	32	32,000
					Culverts	500 / unit	32	16,000
Pollution (OS4, S5)	Future pesticide contamination.	Design chemical store (impermeable floor, raised pallets, ventilation).	Store built; IPM included.	Store inspection.	Chemical store	2,000 / store	32	64,000
Cultural heritage (OS1, S3)	Damage to unrecorded heritage.	Conduct screening; include chance-find procedures in contracts.	Screening report submitted.	Cultural survey; contractor files.	Heritage screening	-		
Governance (OS1, OS2, S6)	Weak IMC capacity.	Train IMC; develop Governance Manual; finance skills training.	Number trained; manual delivered.	IMC registers; manual.	IMC training	200 / session	32	6,400
Monitoring (OS1, S1)	Weak E&S monitoring.	Develop M&E plan; install water meters; define	Reports produced; meters functional.	M&E plan; meter logs.	Water meter			

Aspect (OS & S Triggers)	Impact Description	Detailed Measures	Mitigation	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
		quarterly templates.	reporting						

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 (25 USD each) around worker areas.	Number trained; toilets functional; lamps installed.	SEAH training logs; inspection checklists.	SEAH training	500 / session	1 session/site × 32	16,000
					Mobile toilets	80 / day	60 days × 32	153,600

Aspect (OS & S Triggers)	Impact Description	Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
					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	1 / seedling	200 seedlings/site × 32	6,400
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	PPE usage; number of toolbox talks;	OHS reports; PPE registers.	PPE kits	35 / worker/month	15 workers × 3 months × 32	50,400

Aspect (OS & S Triggers)	Impact Description	Mitigation Measures	Measurable Indicators	Means of Verification	Cost Activity	Unit Cost (USD)	Quantity	Total Cost (USD)
		barricades (50 USD/set); maintain first aid kits (80 USD each).	first aid kits stocked.					
					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
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 hauler (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.	<ul style="list-style-type: none"> • 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
Soil health (OS3, S2)	Waterlogging, salinisation, decline in soil fertility.	<ul style="list-style-type: none"> • 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 	Soil test results; drainage maintained; crop rotation adopted	Soil lab reports; IMC field logs	Soil testing	45 / test	3 tests/site × 32	4,320

Aspect (OS & 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)
		(tensiometers – 45 USD each)						
					Tensiometers	45 / device	4/site × 32	5,760
Livelihoods (OS1, S1)	Increased production and income variability due to market shocks and input shortages.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Quarterly pump maintenance Clean canals bi-weekly using farmer groups Install canal 					(150 USD/servicing)	

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.	<ul style="list-style-type: none"> Prepare a decommissioning OHS Plan; isolate electricity before dismantling 						
		<ul style="list-style-type: none"> Provide PPE sets (helmets, goggles, gloves, boots – 				35 USD/month per worker)		
		<ul style="list-style-type: none"> Install temporary barricades around dismantling zones 				(50 USD/set)		

Aspect (OS & 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)
		<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Remove pumps, pipes, and metals and store in segregated piles De-oil pumps before disposal Collect all waste oils in sealed drums (45 USD each) Hire licensed hazardous waste collector (150 USD/site) 	Quantity of waste removed; hazardous waste safely stored	Waste manifests; disposal receipts	Waste oil drums	45 / drum	2 drums/site × 32	2,880
					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.	<ul style="list-style-type: none"> Backfill all trenches with compacted soil Regrade uneven surfaces to natural contour Plant vetiver grass (2 USD/m) and indigenous shrubs to stabilise soil 	Trenches backfilled; surfaces restored; vegetation established	Site inspection; photo log	Backfilling works	300 / site	32	9,600

Aspect (OS & 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)
		<ul style="list-style-type: none"> Remove temporary foundations and rubble 						
					Vetiver planting	2 / meter	200 m/site × 32	12,800
					Shrub seedlings	1 / seedling	150/site × 32	4,800
Livelihoods (OS2, S7)	Sudden loss of irrigation-based jobs, crop income and market access.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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 & 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)
		<ul style="list-style-type: none"> 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).	<ul style="list-style-type: none"> 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

A budget summary for implementing mitigation measures is presented in Table 33.

Table 33: Mitigation Budget And Resource Apportionment

Budget Category (ESMP Requirement)	Estimated Cost (USD)	IFAD	AfDB	Government of Zimbabwe	Notes / Rationale
Planning Phase (consultations, hydrology assessments, SEAH training, GRM set-up, governance, biodiversity buffers)	232,000	165,000	42,000	25,000	High share of social processes funded by IFAD; AfDB supports climate-risk and hydrology elements.
Construction Phase (erosion control, traffic safety, labour camps, pollution control, OHS, heritage, waste management)	390,000	277,000	70,000	43,000	Major civil works-related safeguards suitable for AfDB support.
Operation Phase (water meters, gauges, chemical stores, soil testing, livelihood training)	74,000	53,000	13,000	8,000	Operation and maintenance are supported mainly by IFAD and GoZ.
Decommissioning Phase (OHS, waste handling, land restoration, community transitions)	80,000	57,000	14,000	9,000	GoZ contributes to end-of-life responsibilities.
Monitoring & Evaluation (environmental monitoring, water testing, quarterly reporting)	40,000	28,000	7,000	5,000	IFAD leads M&E, AfDB supports climate monitoring.
Total ESMP Budget Requirement	816,000	580,000	146,000	90,000	Rounded figures for reporting.

6.2 Environmental and Social Management Plan

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) see Table 34.

Table 34: 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.
Environmental Management Agency (EMA)	Regulates and enforces environmental laws; monitors water quality and assesses environmental impact
Zimbabwe National Water Authority (ZINWA)	Manage and allocates water resources; develops and maintains water supply infrastructure.
Rural District Councils (RDCs)	Oversees local governance and service delivery; facilitates community participation in development.
Financiers e.g AfDB; IFAD	Provides funding for irrigation projects; supports capacity-building and technical assistance.
Rural District Councils	Administers local areas and services; engages communities in planning and prioritization of needs.
District Development Coordinator (DDC)	Coordinates development activities in the district; implements and monitors government programs.
Ministry of Lands, Agriculture, Fisheries, Water and Rural Development	Formulates and enforces policies for agriculture and water management; provides technical support and facilitates funding for projects.
Non-Governmental Organizations (NGOs)	Provide technical assistance and capacity-building; support community engagement and implementation of agricultural practices.

Actor	Core Responsibilities under the ESMP
Community-Based Organizations (CBOs)	Mobilize community participation in irrigation schemes; advocate for the needs and rights of farmers.
Private Sector (Agribusinesses)	Supply agricultural inputs and services; offer market linkages and processing opportunities for farmers.
Irrigation Management Committees (IMCs)	Oversee the day-to-day operation of irrigation systems; facilitate communication between farmers and authorities.
Research Institutions	Conduct research on agricultural practices and water management; provide data and insights to inform policy and practice.

6.3 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.

6.3.1 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 table below summarises the IPMP’s scope, legal framework and key measures. The detailed IPMP is presented in Appendix 33. Pest pressures in the project areas particularly *Spodoptera frugiperda*, *Tuta absoluta*, aphids, whiteflies and fruit flies are intensified by irrigated agriculture and continuous crop production. Without a structured Integrated Pest Management (IPM) approach, these pests may lead to chemical overuse, exposure risks, contamination of

irrigation water, loss of beneficial organisms, and potential non-compliance with safeguard requirements.

The ESMP therefore adopts IPM as the mandatory framework for all agricultural activities supported by the project. The project promotes preventive and ecological management as the primary defence. Farmers and VBUs are required to practice crop rotation, intercropping, residue destruction, synchronised planting and improved field hygiene to suppress pest build-up. Biological and mechanical methods, such as the use of *Bacillus thuringiensis*, *Beauveria bassiana*, pheromone traps and hand removal, are prioritised before any chemical intervention. These methods help reduce reliance on pesticides, protect natural enemies and maintain environmental balance within irrigation intensification zones.

Chemical pesticides are only considered when pest populations exceed economic thresholds and when safer alternatives are ineffective. All pesticides must be on the DRSS Registered List and must exclude Highly Hazardous Pesticides, persistent organic pollutants, unregistered chemicals and any product prohibited under AfDB or IFAD safeguards. Products such as aldicarb, monocrotophos, endosulfan, methamidophos and lindane are strictly prohibited.

Any approved pesticide must be handled with full PPE, mixed away from water sources, applied using calibrated equipment and recorded in spray registers. Safe storage and disposal are mandatory ESMP requirements. All VBUs and scheme committees must operate a secure pesticide storage room with ventilation, shelving, hazard signage and restricted access. Empty containers must be triple-rinsed, punctured and disposed of in designated pits or returned to suppliers as guided by EMA. Pesticide waste must never be buried near canals, wells, boreholes or water bodies.

Monitoring and reporting are central to ESMP implementation. Farmers and block scouts conduct weekly scouting to document pest presence, severity and recommended actions. Extension officers verify field conditions monthly using standardised IPM monitoring tools and compile district summaries on pest trends, pesticide use, storage conditions and compliance with IPM principles. Quarterly multisectoral inspections by EMA, DRSS, AGRITEX and Veterinary Services ensure adherence to environmental and human-health standards.

These monitoring results feed into the ESMP's adaptive management cycle, allowing early identification of risks and timely corrective interventions.

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

The ESMP integrates a grievance redress mechanism to address pesticide-related complaints such as spray drift, water contamination, unsafe handling, poisoning incidents or storage concerns. Complaints raised at VBU or scheme level must be resolved promptly or escalated to district and provincial levels if unresolved. All grievances must be recorded and reported as part of ESMP compliance monitoring.

By embedding a full Integrated Pest Management system into the ESMP, the project ensures that agricultural intensification occurs in a safe, sustainable and environmentally responsible manner. This enhances climate resilience, minimises health risks, protects water resources and ensures full alignment with AfDB, IFAD and EMA requirements. Table 35 below summarises the IPMP’s scope, legal framework and key measures and the detailed IPMP is presented in Appendix 33.

Table 35: The Integrated Pest Management Plan Scope, Legal framework and Key Measures

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
<p>Integrated Pest Management (IPM) Framework</p> <p>Objective: Prevent environmental contamination and protect human and animal health while maintaining crop productivity through ecologically sound pest management practices.</p>	<p>Scope: Applies to all RACP-supported activities, including all rehabilitated and new irrigation schemes, participating out grower farmers, and project-linked agro-dealers and input supply chains.</p> <p>Guiding Framework: Zimbabwe’s Environmental Management Act [Cap 20:27]; Fertilisers, Farm Feeds, and</p>	<p>Policy and Procurement:</p> <ul style="list-style-type: none"> • Restrict procurement and use to approved pesticides; • Strictly prohibit WHO Class Ia and Ib pesticides; • Align practices with the FAO/WHO Code of Conduct on Pesticide Management. <p>Pest Control Strategies (IPM Hierarchy):</p>

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
	<p>Remedies Act [Cap 18:12]; FAO/WHO International Code of Conduct on Pesticide Management; National IPM Strategy.</p> <p>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.</p>	<ul style="list-style-type: none"> • 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. <p>Safe Storage and Infrastructure:</p> <ul style="list-style-type: none"> • Establish central, lockable, ventilated, banded pesticide storage facilities at each major irrigation scheme; • Ensure all project-linked agro-dealers are licensed and EMA-compliant. <p>Training and Capacity Building:</p> <ul style="list-style-type: none"> • 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. <p>Container and Waste Management:</p> <ul style="list-style-type: none"> • Establish pesticide container return schemes; containers must be triple-rinsed before return;

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
		<ul style="list-style-type: none"> • Partner with licensed waste contractors for recycling/disposal; • Prohibit burning, burying or re-use of containers; • Work with EMA on safe identification and disposal of obsolete stock.

6.3.2 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. Table 36 presents the LMP’s objectives, scope, legal framework and key actions and delivers the detailed LMP.

Table 36: The Labour Management Plan

Plan Title & Objective	Scope and Legal Framework	Key Actions & Measures
<p>Labour Management Plan (LMP)</p> <p>Objective: Ensure fair, safe and equitable working conditions for all project workers, prevent child and forced labour, and uphold occupational health and safety standards.</p>	<p>Scope: All project workers, including those employed by contractors, sub-contractors, and IMCs.</p> <p>Legal Framework: Zimbabwe Labour Act [Cap 28:01]; NSSA OSH Policy; NEC Agricultural Sector SI 97/2024; IFAD ESS5 & ESS6.</p>	<ul style="list-style-type: none"> • Execute written employment contracts meeting the 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. • Inclusion of an OHS clause ensuring health, HIV awareness and chance finds

6.3.3 Stakeholder Engagement Plan (SEP)

The Stakeholder Engagement Plan ensures transparent, inclusive and continuous dialogue with communities and institutions across all 6 projects in the 4 districts of Mashonaland West. It is critical for building trust, managing expectations, securing stakeholder participation and capturing the voices of women, youth and vulnerable groups. *Table 37* below summarises the SEP's scope, legal framework and key measures. A detailed SEP is given in Appendix 31. 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 Mashonaland West. 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 seven irrigation schemes (Chomotamba, Lazenby, Shamrock B2, Takavinga, Chiwirirano, and Seke Sanyati).
- **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.

Quarterly stakeholder engagement reports will be prepared and submitted through the PIU to IFAD, and AfDB summarises the SEP’s scope, legal framework and key measures and Appendix 31 delivers the detailed SEP.

Table 37: Stakeholder Engagement Plan

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.	<ul style="list-style-type: none"> • 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.

6.3.4 Climate Risk Management Plan

The Climate Risk Management Plan integrates climate resilience and disaster risk reduction into RACP’s infrastructure and farming practices. It is needed to protect investments from floods, droughts and other hazards while enhancing adaptation benefits. Table 38 sets out the plan’s scope, legal framework and principal actions.

Table 38: 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.	<ul style="list-style-type: none"> • 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 $\geq 70\%$ survival monitoring. • Include emergency procedures and evacuation plans in all construction and operations contracts.

6.3.5 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 39 outlines the plan’s scope, legal framework and key measures.

Table 39: Waste and Pollution Management Plan

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
<p>Waste and Pollution Management Plan</p> <p>Objective: Prevent and mitigate soil, water and air pollution from all project activities, ensuring responsible waste handling from cradle to grave.</p>	<p>Scope: All project sites including construction camps, markets, post-harvest centres and irrigation schemes.</p> <p>Legal Framework: EMA SI 6/2007 (Waste Regulations); Public Health Act [Cap 15:09]; Fertilisers, Farm Feeds and Remedies Act.</p>	<ul style="list-style-type: none"> • Provide segregated bin systems (recyclables, organic, general, hazardous) at all markets, camps and post-harvest centres. • Treat wastewater from post-harvest centres to meet EMA effluent standards before discharge. • Recover and dispose of hazardous waste (used oils, batteries, obsolete pesticides, PV panels) exclusively through EMA-licensed handlers; maintain disposal certificates. • Implement site-specific waste management plans approved by EMA before construction. • Conduct periodic water quality testing (BOD, COD, TDS) downstream of project sites.

6.3.6 Occupational Health and Safety (OHS) Plan

The Occupational Health and Safety Plan protects workers and nearby communities from accidents, injuries and diseases linked to project activities. It is needed to ensure safe construction sites, reduce liability and comply with NSSA and international safeguards. Table 40 summarises the plan's scope, legal framework and key actions Table 40.

Table 40: Occupational Health and Safety Plan

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
<p>Occupational Health and Safety (OHS) Plan</p> <p>Objective: Protect all workers and nearby</p>	<p>Scope: All project phases and all actors, including contractors, IMCs and project staff.</p>	<ul style="list-style-type: none"> • Develop and obtain PIU approval for site-specific OHS plans before mobilisation.

Plan Title & Objective	Scope & Legal Framework	Key Actions & Measures
communities from accidents, injuries and diseases arising from project activities.	Legal Framework: NSSA OSH Policy; Factories and Works Act; Public Health Act; IFAD ESS6.	<ul style="list-style-type: none"> • 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 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.

6.4 Monitoring and Reporting Framework

- Indicators for environmental, social, gender, and climate resilience.
- Monitoring frequency and reporting channels.

Independent audits and evaluations. Effective monitoring and reporting are essential for ensuring that the Resilience Agriculture Cluster Project (RACP) in Mashonaland West complies with the environmental, social, gender and climate resilience requirements of the AfDB Operational Safeguards (OS) and IFAD SECAP Standards (S). The monitoring framework uses clearly defined indicators to track changes in water resources, soil health, biodiversity, labour and SEAH risks, community health, governance, livelihoods and climate resilience across all 32 irrigation schemes. Monthly frontline monitoring by AGRITEX, EMA, Forestry Commission, RDC and IMCs is complemented by quarterly supervisory assessments by the PIU and provincial teams, ensuring consistent oversight, early detection of risks and effective implementation of mitigation measures throughout all project phases.

Monitoring results are documented through established reporting channels at scheme, district and provincial levels, with quarterly summaries providing a consolidated view of performance and emerging issues that require corrective action. The framework also incorporates independent audits and periodic evaluations to verify compliance with OS and S requirements, enhance transparency and support continuous improvement of ESMP implementation. The monitoring Table 41: to Table 44: outline the specific parameters to be assessed during the planning, construction, operation, decommissioning and cumulative impact phases, including indicators, monitoring responsibilities and estimated budget requirements.

Table 41: Planning Phase Monitoring and Reporting Framework

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
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).
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.
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.
Biodiversity – potential encroachment into riparian and wetland zones (OS3, S2)	Presence of ecological buffer zones in design and on ground.	Buffers marked on drawings and pegged in field.	Once at design approval; once before construction.	EMA, Forestry Commission, PIU Environmental Specialist.	Included in EMA/Forestry support and overall monitoring budget.
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 sited borrow pits (OS1, OS3, S2)	Location and rehabilitation provisions for borrow pits in design.	Borrow pit locations shown; 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.

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
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 addressed (OS1, OS5, S3)	Existence of SEAH Action Plan and Codes of Conduct in planning package.	SEAH Plan in place; CoC included in tender/contracts.	Once per contract, before award and mobilisation.	PIU GBV/SEAH Focal Person; Procurement Unit.	Included in PIU operational budget.
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.
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.
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.

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
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 (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.

Table 42: 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 43: 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; VBU volumes.	Quarterly.	AGRITEX, IMC, PIU Livelihood Officer.	Included in quarterly supervision.

Aspect & Impact	Monitored Activity	Monitoring Indicator	Frequency	Responsibility	Estimated Monitoring Budget
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 Committee, GRM 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 44: 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)	Backfilled trenches, regraded slopes, vegetation re-establishment.	Number of pits closed; 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 1 year.	IMC, RDC, PIU Social Safeguards.	Within overall monitoring and handover processes budget.
Reuse potential – community reuse of remaining assets (OS1, OS2, S6)	Existence and implementation of reuse plans.	Reuse plan in place; reuse options implemented.	Once at handover; annual check if reuse is ongoing.	RDC, IMC, PIU.	Included in project closing supervision.

The annual monitoring budget (Table 45) provides the financial resources required to support all environmental and social oversight activities across the irrigation schemes implemented under the RACP in Mashonaland West 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 45: Annual Monitoring Budget

Aspect & Impact	Frequency	Responsible Office	Annual Monitoring Budget (USD)
Water resources – abstraction volumes, downstream flows, wetland condition	Monthly frontline, quarterly PIU	ZINWA, EMA, AGRITEX, IMC Water Committee, PIU Environmental Specialist	\$10,286
Water quality – turbidity, pH, EC, contamination risks	Quarterly	EMA, PIU Environmental Specialist	\$5,143
Soil health – salinity, soil fertility, erosion status	Twice yearly tests, monthly visual checks	AGRITEX, EMA, PIU Agronomist	\$4,286
Biodiversity – buffer zones, riparian vegetation and habitat protection	Quarterly	Forestry Commission, EMA, PIU Environmental Specialist	\$4,286
Pollution – agrochemicals, fuel, oils, chemical storage	Monthly	EMA, IMC, PIU Environmental Specialist	\$5,143
Air quality – dust and construction or traffic emissions	Monthly in dry seasons	EMA, RDC, Contractor, IMC	\$2,857
Labour and SEAH – worker conditions, SEAH risk and Code of Conduct compliance	Monthly	Contractors, IMC, PIU SEAH and Social Safeguards	\$5,714
Occupational health and safety – accidents, PPE use, pump house safety	Monthly	IMC OHS focal person, Contractors, PIU OHS Officer	\$5,714
Community health – malaria, waterborne disease and stagnant water	Monthly frontline, quarterly health review	MoHCC EHTs, IMC, PIU Social Safeguards	\$3,429
Community safety – road and canal safety, traffic risks, signage	Monthly	RDC, IMC, Contractors, PIU	\$2,857
Social inclusion – participation of women, youth and vulnerable groups	Quarterly	RDC, IMC, PIU Social Safeguards	\$1,429
Social stability – conflicts linked to labour influx and water sharing	Monthly	IMC, RDC, PIU Social Safeguards	\$1,429

Aspect & Impact	Frequency	Responsible Office	Annual Monitoring Budget (USD)
Governance – IMC performance, transparency and rule enforcement	Quarterly	IMC, RDC, PIU Governance or Institutional Specialist	\$2,857
Land access – grazing routes, footpaths, access to schemes	Quarterly	RDC, IMC, PIU Social Safeguards	\$1,429
Cultural heritage – chance finds, protection of sites	As incidents occur, quarterly review	NMMZ, PIU Environmental Specialist	\$1,429
Livelihoods – crop yields, income, market access	Quarterly	AGRITEX, VBUs, IMC, PIU Livelihoods Officer	\$2,571
Agricultural efficiency – pump and canal performance, water delivery	Monthly	IMC, AGRITEX, PIU Irrigation or Engineering Specialist	\$2,143
Climate resilience – performance of drains, embankments under extreme events	Quarterly and after major events	EMA, RDC, IMC, PIU Climate or Engineering Specialist	\$1,714
Hydrology – drainage channels, culverts, diversions and local flooding	Quarterly	EMA, RDC, PIU	\$1,500
Mobility – condition of access routes, bypasses, and footpaths	Monthly	RDC, IMC	\$1,143
Waste management – segregation, storage, and disposal of waste	Monthly	EMA, IMC, RDC, Contractors	\$1,143
Monitoring and reporting – M&E tools, data quality, timely reporting	Monthly and quarterly	PIU M&E Unit, IMC	\$1,143

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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9.0 APPENDICES

Appendix 1: Soil Types and Classification

Mhondoro-Ngezi Soil Classification

Zimbabwe / FAO Classification and Code	Texture and Colour (Munsell)	Typical Setting	Key Soil Properties
Lithosol (5G) / Leptosol	Gravelly loam; 7.5 YR 4/4 (brown)	Exposed outcrops	Very shallow (< 30 cm), stony, rapid drainage, low fertility
Chromosol (M8) / Cambisol	Sandy clay loam; 10 YR 5/4 (yellowish brown)	Alluvial benches and terrace margins	Moderate depth (50–100 cm), good drainage, medium fertility
Ferralsol (11R)	Clay loam; 2.5 YR 5/6 (red)	Upland plateaus and gentle slopes	Deep (> 150 cm), highly weathered, low cation-exchange capacity
Regosol (2C)	Loamy sand; 10 YR 4/2 (dark yellowish brown)	Colluvial slope toes and spoil slopes	Very coarse texture, rapid infiltration, low water-holding capacity

Soil Types in Sanyati

Soil Type	Soil Description	Soil Code	Munsell Colour
Vertisols	Clay-rich, swell when wet and shrink upon drying, suitable for specific crops.	5E5	10YR 5/4
Ferralsols	Well-drained, reddish-brown soils rich in iron and aluminium oxides. They typically have a clayey texture. Suitable for certain crops but often requires soil management practices like liming and organic amendments to enhance fertility.		
Acrisols	Clay-rich horizons are often found in humid tropical regions. These soils can support crops like maize and sorghum, but they may need fertilisers to improve productivity.		
Luvissols	Clay-rich soils that have a significant accumulation of clay in the subsoil. Ideal for agricultural use, supporting a variety of crops, including legumes and cereals.		
Gleysols	Typically found in poorly drained areas, and are characterised by high moisture content. These soils can		

Soil Type	Soil Description	Soil Code	Munsell Colour
	support wetland crops but may require drainage for effective agricultural practices.		
Andosols	Volcanic soils are rich in organic matter and minerals. Suitable for diverse agricultural practices, including the cultivation of high-value crops.		

Appendix 2: Zvimba Tree Species Detailed Species lists

Common English Name	Shona Name	Scientific Name	Distribution	IUCN Status
Acacia (Thorn Tree)	<i>Muunga</i>	<i>Acacia karroo</i>	Savanna edges	LC
Purple-leaved Albizia	<i>Muriranyenze</i>	<i>Albizia antunesiana</i>	Miombo woodland	LC
Large White Bauhinia	<i>Mupondo, Mun'ando</i>	<i>Bauhinia petersiana</i>	Dry woodlands	LC
Berberis	-	<i>Berberis holstii</i>	Montane, forest margins	LC
Wild syringa	<i>Mukarati</i>	<i>Burkea africana</i>	Miombo woodland	LC
Carrot Tree	<i>Mubanda, Mupomboboshi</i>	<i>Steganotaenia araliacea</i>	Woodlands, rocky areas	LC
Leadwood	<i>Mutsviri</i>	<i>Combretum imberbe</i>	Woodlands, Savannah	LC
Velvet bushwillow	<i>Mubondo, Mugoro</i>	<i>Combretum molle,</i>	<i>Brachystegia-Julbernardia</i> woodland	
Silver bushwillow	<i>Muhwezha Murumanyama</i>	<i>Combretum collinum</i>	Miombo woodlands	LC
African Ebony	<i>Musuma, Mushuma</i>	<i>Diospyros mespiliformis</i>	Riverine, woodland	LC
Sand Olive	-	<i>Dodonaea viscosa</i>	Rocky slopes, woodland	LC
Magic guarri	<i>Munyanya</i>	<i>Euclea divinorum</i>	Woodlands, bushland	LC
Wild's Euphorbia	-	<i>Euphorbia wildii</i>	Northern Great Dyke outcrops	NE
Broom-cluster Fig	-	<i>Ficus capensis</i>	Riverine, woodland	LC
Sycamore Fig	<i>Mukuyu, Muonde</i>	<i>Ficus sycomorus,</i>	Riverine, rocky slopes	LC

Common English Name	Shona Name	Scientific Name	Distribution	IUCN Status
Cross berry	<i>Mumaka, Musosobiana</i>	<i>Grewia occidentalis</i>	Forest margins, woodland	LC
River Red Gumtree	-	<i>Eucalyptus camaldulensis</i>	Planted, disturbed	NE
Confetti Tree	<i>Musosaguva, Chizhuzhu</i>	<i>Gymnosporia senegalensis</i>	Wide variety of habitats	LC
Serpentinicola Indigofera	-	<i>Indigofera serpentinicola</i>	Serpentine grasslands	NE
Mnondo	<i>Munhondo</i>	<i>Julbernardia globiflora</i>	Miombo woodland	LC
Tree grape	<i>Mugan'acha</i>	<i>Lannea discolor</i>	Dry woodlands	LC
River tamarind	-	<i>Leucaena leucocephala</i>	Forest Margins, river banks	NE
Bead bean	<i>Mugesu, Mureri</i>	<i>Maerua angolensis</i>	Dry woodland	LC
Mopane	<i>Musharu, Mupani</i>	<i>Colophospermum mopane</i>	Transitional zones	LC
Bloodwood	<i>Mubvaropa</i>	<i>Pterocarpus angolensis</i>	Miombo woodlands	Vulnerable
African olive	<i>Mupfuri</i>	<i>Olea europaea ssp. africana</i>	Rocky hills, Riverine, woodland	LC
Great dyke raisin-berry	<i>Muvezwa</i>	<i>Ozoroa longipetiolata</i>	Endemic to serpentine soils	LR
Hissing tree	<i>Muchakata, Muhacha</i>	<i>Parinari curatellifolia</i>	Woodlands, riverine	LC
Spiny Monkey orange	<i>Mutamba - mun'ono</i>	<i>Strychnos spinosa</i>	Woodland, riverine fringes	LC
Poison-pod albizia	<i>Muriranyedzi</i>	<i>Albizia versicolor</i>	Woodlands	LC
Wild Willow	-	<i>Salix mucronata</i>	Riverbanks	LC
African star-chestnut	<i>Murere, Mutsvedza</i>	<i>Sterculia africana</i>	Dry woodland and rocky kopje	LC
Honey-scented protea	<i>Musitsuru</i>	<i>Protea welwitschii</i>	Woodlands and hillsides	LC

Common English Name	Shona Name	Scientific Name	Distribution	IUCN Status
Wild Fig	<i>Muonde</i>	<i>Ficus thonningii</i>	Riverine areas	LC
Horn pod tree	<i>Mutohwa</i>	<i>Diplorhynchus condylocarpon</i>	Open woodlands, hillsides	LC

Not Evaluated (NE) Least Concern (LC) Low Risk (LR)

Appendix 3: Zvimba List of Grass and Herbaceous Species

Common Name	English	Shona Name	Scientific Name	Distribution
Wire grass		-	<i>Aristida adscensionis</i>	Dry grasslands,
Aspilia		-	<i>Aspilia mossambicensis</i>	Grasslands, woodland
Dwarf Aspilia		Mukusha mvura	<i>Aspilia pluriseta</i>	Disturbed soils
Red autumn grass		-	<i>Schizachyrium sanguineum</i>	Grasslands, gravely and rocky soils
Pinhole grass		-	<i>Bothriochloa insculpta</i>	Grasslands
Fine Thatching Grass		-	<i>Hyparrhenia filipendula</i>	Savannah, grassland
Couch Grass		-	<i>Cynodon dactylon</i>	Widespread, disturbed areas
Fern		-	<i>Pteridium aquilinum</i>	Forest margins, moist areas
-		-	<i>Senecio sp.</i>	Serpentine outcrops
Guinea Grass		-	<i>Panicum maximum</i>	Widespread in Zimbabwe
		-	<i>Helichrysum spp.</i>	Grasslands, rocky outcrops
Lemon Grass		-	<i>Cymbopogon citratus</i>	Edges of woodlands
Lovegrass		-	<i>Eragrostis spp.</i>	Grasslands, open woodlands
African RockFern		-	<i>Cheilanthes involuta</i>	Rocky crevices, Mpinga Pass
Paronychia		-	<i>Paronychia spp.</i>	Rocky outcrops
Red Grass		-	<i>Themeda triandra</i>	Grasslands, open woodland
Sedge		-	<i>Cyperus spp.</i>	Wetlands, riverbanks
Everlasting flowers			<i>Helichrysum sp.</i>	Endemic to mineral-rich soils

Common English Name	Shona Name	Scientific Name	Distribution
Serpentine Lovegrass	-	<i>Eragrostis sp.</i>	Endemic to Great Dyke soils
Bristle grass	-	<i>Setaria sphacelata</i>	Grasslands, disturbed areas
Catstail	-	<i>Sporobolus pyramidalis</i>	Grasslands
Stinking roger	Mbanda	<i>Tagetes minuta</i>	Disturbed, open areas
Vernonia	-	<i>Vernonia spp.</i>	Grasslands, woodland
White Sage	-	<i>Salvia africana-lutea</i>	Grasslands, rocky slopes
Giant cocklebur	-	<i>Xanthium strumarium</i>	Disturbed areas
Throughwort		<i>Polycarpaea sp</i>	Sandy soils
Jade plant	-	<i>Crassula</i>	Rocky areas
Veld Fern	Munzpete	<i>Boophone disticha</i>	Open woodlands
Stonecrop	-	<i>Sedum sp.</i>	-
Barberry bush	-	<i>Berberis sp.</i>	-

Appendix 4: Zvimba List of Animals

Common English Name	Shona Name	Scientific Name	Distribution	IUCN Status
Helmeted Guinea fowl	-	<i>Numida meleagris</i>	Widespread	Least Concern (LC)
African Fish Eagle	Hungwe	<i>Haliaeetus vocifer</i>	Near water bodies	Least Concern (LC)
African Python	Mambure	<i>Python natalensis</i>	Widespread	Least Concern (LC)
Vervet Monkey	Tsoko	<i>Chlorocebus pygerythrus</i>	Woodland, riverine	Least Concern (LC)

Appendix 5: Mhondoro-Ngezi List of Tree Species

Common Name	Shona Name	Scientific Name	Distribution
Mountain Karee		<i>Searsia leptodictya</i>	Woodland and rocky outcrops
Wild Apricot	Mutowa	<i>Diplorhynchus condylocarpon</i>	Miombo woodland and rocky hills
Plant Parasite		<i>Pilostyles aethiopica</i>	Parasitic on host shrubs in open woodland
Bell Bean		<i>Markhamia zanzibarica</i>	Riverine fringes and woodland
Velvet Corkwood		<i>Commiphora mollis</i>	Dry woodland and rocky soils
Lavender Croton		<i>Croton gratissimus</i>	Fringing forest and savannah
Flame Spurge		<i>Euphorbia matabelensis</i>	Rocky outcrops
Purple-leaved Albizia		<i>Albizia antunesiana</i>	Wooded grassland and open woodland
White Seringa		<i>Kirkia acuminata</i>	Woodland and grassland mosaic
Kudu Berry		<i>Pseudolachnostylis maprouneifolia</i>	Rocky bushveld and open woodland
Spine-leaved Monkey Orange		<i>Strychnos pungens</i>	Mixed woodland and rocky outcrops
Large-leaved Rock Fig		<i>Ficus abutilifolia</i>	Cliff faces and rock outcrops
Cape Fig		<i>Ficus sur</i>	Gallery forest, riverbanks, and woodland
Blue Sweetberry		<i>Bridelia cathartica</i> subsp. <i>melanthesoides</i>	Woodland and thickets
	Mfuti	<i>Brachystegia boehmii</i>	Miombo woodland and rocky outcrops
Msasa	Msasa	<i>Brachystegia spiciformis</i>	Miombo woodland and rocky outcrops
Mountain Acacia		<i>Brachystegia tamarindoides</i>	Miombo woodland and rocky slopes
Sickle Bush	Mupangara	<i>Dichrostachys cinerea</i>	Dry woodland and savannah

Common Name	Shona Name	Scientific Name	Distribution
Jackal Berry	Mushuma	<i>Diospyros mespiliformis</i>	Riverine forests and woodlands
Spiny Monkey Orange	Mutamba	<i>Strychnos spinosa</i>	Savannah and dry woodland
Gumtree	Gumuti	<i>Eucalyptus spp.</i>	Plantations and urban areas
Velvet Bushwillow	Mubvamakumbo	<i>Combretum collinum</i>	Woodland and savannah
Leadwood	Mubvamakumbo	<i>Combretum imberbe</i>	Dry woodland and riverbanks
Red Bushwillow	Chakata	<i>Combretum apiculatum</i>	Savannah and rocky slopes
Silver Cluster-leaf	Muzonze	<i>Terminalia sericea</i>	Sandy soils in savannah
Wild Olive	Mukute	<i>Olea europaea</i> subsp. <i>africana</i>	Rocky hills and woodlands
Mopane	Mopani	<i>Colophospermum mopane</i>	Savannah
African Ebony	Mutsvayiro	<i>Euclea divinorum</i>	Woodland and scrubland
African resin tree	—	<i>Ozoroa isignis delile</i>	
Water Berry	Muteesa	<i>Syzygium guineense</i>	Riverine forests
Mnondo	Mnondo	<i>Julbernardia globiflora</i>	Miombo woodland
Kalahari Bauhinia	Mupangapanga	<i>Bauhinia petersiana</i>	Dry woodland and scrub
Wild Medlar	Umumbumbulu	<i>Vangueria infausta</i>	Savannah and thickets

Appendix 6: Mhondoro-Ngezi List of Grass and Herbaceous Species

Common Name	Shona Name	Scientific Name	Distribution Status	IUCN Status
Gamba Grass	Chizhakwe	<i>Andropogon gayanus</i>	Native	NE
Wild Sunflower	Munyanga	<i>Aspilia mossambicensis</i>	Native	NE
Asparagus Fern		<i>Asparagus africanus</i>	Native	LC
Waxberry	Mzingawera	<i>Pollichia campestris</i>	Native	LC
Inyanga Sugarbush	Sugubindu	<i>Protea asymmetrica</i>	Native	NT
Inyangensis Aloe	Chiremba	<i>Aloe inyangensis</i>	Native	NE
Wild Jasmine	Joshimbe	<i>Jasminum stenolobum</i>	Native	NE
Blister Bush	Chijarira	<i>Diplolophium swynnertonii</i>	Native	NE
Lambs ear		<i>Stachys</i>	Native	LC
Showy Helichrysum	Chijuda	<i>Helichrysum setosum</i>	Native	NE
Velvet Leonotis	Mharaunda	<i>Leonotis mollissima</i>	Native	NE
Hairy Indigo	Chizombo	<i>Indigofera lyallii</i> subsp. <i>lyallii</i>	Native	NE
Red Grass	Mhungamirara	<i>Themeda triandra</i>	Native	NE
Thatching Grass	Chitopwa	<i>Hyparrhenia filipendula</i>	Native	NE
Natal Crotalaria	Gwararadzimu	<i>Crotalaria natalitia</i> var. <i>natalitia</i>	Native	NE
Dissotis	—	<i>Dissotis senegambiensis</i>	Native	NE
Haumaniastrum	—	<i>Haumaniastrum venosum</i>	Native	NE
Tridax Daisy	Chungirirandira	<i>Tridax procumbens</i>	Native	NE
Ironweed	—	<i>Vernonia</i> sp.	Native	LC
		<i>Crassula</i> sp		
Bur-Marigold	—	<i>Bidens pilosa</i>	Native	NE
Chromolaena	—	<i>Chromolaena odorata</i>	Native	NE
Spurge	—	<i>Euphorbia hirta</i>	Native	NE

Common Name	Shona Name	Scientific Name	Distribution Status	IUCN Status
Phyllanthus	—	<i>Phyllanthus pentandrus</i>	Native	NE
—	—	<i>Andropogon</i>	Native	NE
Lovegrass	—	<i>Eragrostis elongata</i>	Native	NE

Not Evaluated (NE) Least Concern (LC) Near Threatened (NT)

Appendix 7: Mhondoro-Ngezi List of Animals

Group	Common Name	Scientific Name	Notes	IUCN Status
Mammals	Vervet Monkey	<i>Cercopithecus pygerythrus</i>	Commonly observed in dense savannah	LC
Mammals	Chacma Baboon	<i>Papio hamadryas ursinus</i>	Cliffs, tall trees, mountains within savannah	LC
Mammals	Banded Mongoose	<i>Mungos mungo</i>	Frequently seen during the day.	LC
Mammals	Waterbuck	<i>Kobus ellipsiprymnus</i>	Often spotted near water bodies.	LC
Mammals	Yellow-spotted Rock Hyrax	<i>Heterohyrax brucei</i>	Found in rocky areas; social behaviour noted.	
Mammals	Rusty-spotted Genet	<i>Genetta maculata</i>	Nocturnal; inhabits forested regions.	LC
Mammals	Impala	<i>Aepyceros melampus</i>	Common antelope species in the area.	LC
Mammals	Warthog	<i>Phacochoerus africanus</i>	Frequently seen in open areas.	LC
Mammals	Tree Squirrel	<i>Paraxerus cepapi</i>	Common in wooded regions.	LC
Birds	White-backed Vulture	<i>Gyps africanus</i>	Critically endangered; scavenger species.	E
Birds	Martial Eagle	<i>Polemaetus bellicosus</i>	Endangered; large raptor species.	E
Birds	Southern Ground Hornbill	<i>Bucorvus leadbeateri</i>	Vulnerable; ground-dwelling bird.	
Reptiles	Nile Crocodile	<i>Crocodylus niloticus</i>	Inhabits lake and river areas; apex predator.	LC
Insects	Emerald Fruit Chafer	<i>Pachnoda sinuata</i>	Savannah woodlands, and areas with abundant flowering plants and fruit trees	

Appendix 8: Chegutu Trees

Chegutu List of Trees in the project area

SPECIES NAME	ENGLISH NAME	SHONA NAME
<i>Acacia arenaria</i>	Sand acacia, Sand thorn	-
<i>Acacia caffra</i>	Common hook thorn, Tynwald Acacia	-
<i>Acacia erubescens</i>	Blue thorn	Mumhuwa
<i>Acacia mellifera</i>	Black thorn	Katogwa, Muguungu, Mukotokwa
<i>Acacia robusta</i>	Splendid thorn	Mumhuwa
<i>Acacia tortilis</i>	Umbrella thorn	
<i>Albizia adanthifolia</i>	Rough-barked flat-top	Muzeze, Mucherenje, Musherenge
<i>Albizia amara</i>	Bitter Albizia, bitter false thorn	Muchangiza, Muora, Mugarahanga, Mugunduzi, Muvara
<i>Albizia spp</i>	-	Muora
<i>Annona senegalensis</i>	Wild custard-apple	Muroro, Murosha
<i>Azanza garckeana</i>	Snott apple	Mutohwe
<i>Baikiaea spp</i>	Teak	Mutondo
<i>Bauhinia fassoglencius</i>	Marama bean, Tamani berry	Gwangwandiza, Mubopo, Mudamura, Mutukutupasi
<i>Bauhinia petersiana</i>	Large white bauhinia	Mubondo, Mumwando, Mun'ando, Mupondo
<i>Bauhinia fassoglensis</i>	Creeping bauhinia, Marama bean, Tamani berry	Gwangwandiza, Mubopo, Mudamura, Mutukutupasi
<i>Bauhinia galpni</i>	Red bauhinia	Mubhuku/Musekesa
<i>Brachystegia spiciformis</i>	Msasa	Musasa
<i>Brachystegia bohemii</i>	Prince of Wales feathers	Mupfuti, mufute
<i>Catunaregum taylorii</i>	Thicket thorn, Thicket xeromphis	Chibayaduvuro, Chibayamakono, Chirovadungura, Chizhuzhu-Chitusku

SPECIES NAME	ENGLISH NAME	SHONA NAME
<i>Colophospermum mopane</i>	Mopane, Turpentine tree	Mupane, Musharu
<i>Commiphora ugogensis</i>	River corkwood	Mukwendekwende, munyera
<i>Conbretum apiculatum</i>	Red bushwillow	Mugodo, Bonda, Chikukute, Mudziyaishe, Mugoro, Tsingidzi
<i>Dichrostachys cineria</i>	sickle bush, Chinese lantern	Mumhangara, Mupangara, Muruka, Musekera
<i>Dicrostachys cinerea</i>	Sickle bush	Chizhuzhu, Mupangare
<i>Ensete ventricosum</i>	Banana	Mubhanana
<i>Eucalyptus spp</i>	Gum trees	Mupuranga
<i>Euclea crispa</i>	Blue guarri, Blue-leaved euclea	Mushangura, Madziyire
<i>Faldherbia albida</i>	Ana-tree, Apple-ring acacia, Winter thorn	Musangu , Musenga
<i>Faurea rochetiana</i>	Broad-leaved beechwood	Kapfutsa, Mugarahungwe, Munyangan za, Mutsatsati, Muzhenje
<i>Ficus spp</i>	-	Mubhara,
<i>Flueggea virosa</i>	Snowberry tree	Musosoti, Muchagauwe, Mudyambuzi, Mugurumhanda
<i>Gardenia resiniflua</i>	Gummy gardenia	Mutarara, Mutara
<i>Grewia flavescens</i>	Donkey-berry, Sandpaper raisin	Mubhununu, Mujonjoma, Mumhudzungwa
<i>Julbernardia globiflora</i>	-	Mutondo, Munondo
<i>Lantana camara</i>		
<i>Mangifera indica</i>	Mango	Mumango
<i>Melia azedarach</i>	Persian lilac, Syringa berry	Mukina, Musiringa,
<i>Pouzolova mixta</i>	Snuggle-leaf, Soap nettle	Munanzva, Tasva
<i>Solanum panduriforme</i>	Snake/bitter apple	Munhundurwa

SPECIES NAME	ENGLISH NAME	SHONA NAME
<i>Sterculia africana</i>	African star-chestnut, Tick tree	Mupoposiyana, Munera, Mungosa, Murere, Mutedza, Mutsvedza
<i>Terminalia sericea</i>	Silver cluster-leaf, Silver terminalia	Mangwe , Mukonono, Mususu, Mutabvu
<i>Ziziphus mucronata</i>	Buffalo-thorn	Chinanga , Muchecheni

Appendix 9: Chegutu List of Grasses

List of Grasses and herbs

SPECIES NAME	ENGLISH NAME	SHONA NAME
<i>Acanthospermum hispidum</i>	Upright starbur	Chidhongi, Chaguduma, Chibamahure, Chitopera
<i>Aloe spp</i>	Aloe	Gavakava
<i>Amaranthus hybridus</i>	Pigweed	Bonongwe, Mbowa, Mowa, Mhowa
<i>Andropogon gayanus</i>	Blue grass	Cholongwe, Vatasoma
<i>Avena fatua</i>	Wild oats	-
<i>Bidens biternata</i>	Yellow-flowered blackjack	Guza, Muuwu, Nhungunira, Nama
<i>Bidens pilosa</i>	Black-jack, Cobbers pegs	Tsine, Guza, Muuwu, Nhungunura
<i>Brachiaria brizantha</i>	Signal grass, False upright grass	Zinyaruzoka
<i>Chloris pycnothrix</i>	Spider-web grass	-
<i>Commelina bengalensis</i>	Blue wandering jew	Chidyahumba, Damba, Gezi, Goche, Zheki
<i>Crotalaria anisophylla</i>	-	-
<i>Cynodon aethiopicus</i>	Runner Grass	
<i>Cynodon dactylon</i>	Couch grass	Tsangadzi
<i>Desmodium spp</i>	-	-
<i>Diheteropogon amplilectere</i>	-	-
<i>Eragrostis tenuifolia</i>	Ox grass	-
<i>Helichrysum goetzeanum</i>	Evalasting flower	-
<i>Hibiscus spp</i>	-	-
<i>Hyparrhenia spp</i>	Thatching grass	Dangaruswa,
<i>Kaempferia carsonii</i>	Wild Canna	-
<i>Leonotis ocyimifolia</i>	Wild dagga	Kambanje, Mukadzimainza
<i>Leonotis randii</i>	-	-

SPECIES NAME	ENGLISH NAME	SHONA NAME
<i>Lippia javanica</i>	Fever tea, Lemon bush	Muzimbani, Kachigwere, Mumara, Mushani mukuru, Musumba
<i>Mellenis repens</i>	Wild Oat	
<i>Panicum dregeanum</i>	Plum panicum	-
<i>Pennisetum setaceum</i>	Fountain grass	-
<i>Ricinus communis</i>	Castor-oil plant	Fute, Mhono, Mufute, Mupfuta
<i>Schizchyrium jeffreysii</i>	Perennial slit grass, Silky red autumn grass	-
<i>Senna occidentalis</i>	Coffee senna	-
<i>Setaria verticillata</i>	Bur grass, Cats tail, Klits grass	-
<i>Sida alba</i>	-	Dzvairo
<i>Solanum incanum</i>	Bitter/Sodom/Thorn apple	Nhundurwa, Munhomboro, Munhundurwa
<i>Sporobolus stapfianus</i>	Matted dropseed	-
<i>Tagetes minuta</i>	Khakhi bush, Maxican Marigold, Stinking roger	Hanya, Mbanda, Muhungunira, Mutsvairo
<i>Themeda triandra</i>	Red grass, Rooi grass	Chiraramhene
<i>Trichodesma zeylanicum</i>	Late Weed	Nyarumundu
<i>Wormskioldia longipendunculata</i>	Pimpernel	-

Appendix 10: Chegutu List of Fauna in the Project Area

Common Name	Vernacular name	Scientific name
Wild Animals		
Warthog	Njiri	<i>Phacochoerus africanus</i>
Common duiker	Mhembwe	<i>Sylvicapra grimmia</i>
Scrubhare	Tsuro	<i>Lepus saxatilis</i>
Porcupine	Nungu	<i>Hystricomorph hystricidae</i>
Cane rat	Tsenzi	<i>Thryonomys swinderianus</i>
Squirrel	Tsindi	<i>Sciuridae</i>
Mouse	Mbeva	<i>Mus musculus</i>
Rat	Gonzo	<i>Murinae</i>
Monkey	Tsoko	<i>Cercopithecus aethiops</i>
Kudu	Nhoro	<i>Tragelaphus strepsiceros</i>
Bat	Muremwaremwa	<i>Desmodus rotundus</i>
Domestic Animals		
Cattle	Mombe	<i>Bos primigenius</i>
Goats	Mbudzi	
Dog	Imbwa	
Reptiles		
Cobra	Mhungu	<i>Naja naja</i>
Python	Shato	
Black Mamba	Rovambira	<i>Dendroaspis polylepis</i>
Lizard	Dzwinyu/Dzwombi	
Birds		
Laughing dove	Njiva	<i>Streptopelia senegalensis</i>
Helmeted Guinea fowl	Hanga	<i>Numida meleagris</i>
Francolin	Chikwari	
Owl	Zizi	<i>Strigidae tytonidae</i>
Striped Swallow		<i>Hirundo abyssinica</i>

House Sparrow		<i>Felis catus</i>
Southern Masked Weaver	Jesa	<i>Ploceus velatus</i>
Red headed Weaver	Jesa	<i>Anaplectes rubriceps</i>
Yellow crowned bishop		<i>Euplectes afer</i>
Southern black flycatcher		<i>Melaenornis pammelaina</i>
Golden breasted Bunting		<i>Emberiza flaviventris</i>
	Hangaiwa	
Bearweaver bird	Jesa	
	Mazadzadanga	
	Kasisi	
Insects		
Grasshopper	Hwiza	
	Ants	Masvosve
	Butterfly	
	Miliepad	Zongororo
	House fly	Nhunzi

- **Dominant Grass Species:**

- *Andropogon gayanus* (Blue grass, Shona: Cholongwe, Vatasoma)
- *Themeda triandra* (Red grass, Rooi grass, Shona: Chiraramhene)
- *Hyparrhenia spp.* (Thatching grass, Shona: Dangaruswa)
- *Panicum dregeanum* (Plum panicum)
- *Cynodon dactylon* (Couch grass, Shona: Tsangadzi)
- *Eragrostis tenuifolia* (Ox grass)
- *Bidens pilosa* (Black-jack, Cobbers pegs, Shona: Tsine, Guza, Muuwu)

Grasslands are typically found on well-drained soils, often siallitic (5D2) and kaolinitic (5E2) types, which retain moisture and nutrients essential for grass growth.

2. Woodland and Forest Habitat:

Woodlands and forests are crucial for biodiversity, offering habitat for various plant and animal species. These areas are typically found on fertile soils such as fersiallitic (5E1) and orthoferrallitic (5E4).

- **Dominant Tree Species:**

- *Brachystegia spiciformis* (Msasa, Shona: Musasa)
- *Julbernardia globiflora* (Shona: Mutondo, Munondo)
- *Acacia robusta* (Splendid thorn, Shona: Mumhuwa)
- *Combretum apiculatum* (Red bushwillow, Shona: Mugodo, Bonda)
- *Albizia adanathifolia* (Rough-barked flat-top, Shona: Muzeze, Mucherenje)
- *Colophospermum mopane* (Mopane, Shona: Mupane, Musharu)
- *Ricinus communis* (Castor-oil plant, Shona: Fute, Mhono, Mufute, Mupfuta)

3. Shrubland Habitat:

Shrublands, dominated by dense stands of shrubs and small trees, provide crucial habitat for birds and small mammals. They are often found on paraferallitic (5E3) soils that support moderate leaching and nutrient retention.

- **Dominant Shrub Species:**

- *Lippia javanica* (Fever tea, Lemon bush, Shona: Muzimbani, Kachigwere)
- *Leonotis ocymifolia* (Wild dagga, Shona: Kambanje, Mukadzimainza)
- *Sida alba* (Shona: Dzvairo)
- *Grewia flavescens* (Donkey-berry, Shona: Mubhununu, Mujonjoma)

4. Wetland and Riparian Habitat:

These habitats, found along riverbanks and water bodies, are characterized by high moisture levels supporting vegetation adapted to wet conditions. Soils in these areas are often vertisols (5E5), known for their high clay content and water retention properties.

- **Dominant Wetland Species:**

- *Commelina bengalensis* (Blue wandering jew, Shona: Chidyahumba, Damba)
- *Cyperus fuscus*
- *Panicum maximum*
- *Phragmites spp.* (Reeds)

Sanyati Endemic Species:

1. ***Brachystegia spiciformis* (Msasa, Shona: Musasa)**
 - Status: Endemic to Miombo woodlands of Southern Africa.
2. ***Julbernardia globiflora* (Shona: Mutondo, Munondo)**
 - Status: Endemic to Miombo woodlands of Southern Africa.

Vulnerable Species:

1. ***Colophospermum mopane* (Mopane, Shona: Mupane, Musharu)**
 - Status: Considered vulnerable in specific habitats due to deforestation and overgrazing.
2. ***Pterocarpus angolensis* (Mukwa, Shona: Mukwa)**
 - Status: Listed as near-threatened due to logging and habitat loss.

Species of Conservation Concern:

1. ***Ficus sycomorus* (Common cluster fig, Shona: Muonde)**
 - Status: Not currently listed as endangered or vulnerable, but important for ecosystem services and wildlife.
2. ***Acacia robusta* (Splendid thorn, Shona: Mumhuwa)**
 - Status: Locally important for ecosystem functions and may face pressures from land use changes.

Non-threatened but Locally Important:

1. ***Aloe spp.* (Aloe, Shona: Gavakava)**
 - Status: Widely used for medicinal purposes, overharvesting can be a concern.
2. ***Lippia javanica* (Fever tea, Lemon bush, Shona: Muzimbani, Kachigwere)**
 - Status: Commonly used in traditional medicine, locally significant.

Mashanaland West

06 October 2025 Chomutamba Irrigation Scheme (Zimbabwe District) minutes
09:35

Opening Remarks

The meeting began with introductions of the SACF and SIRDC teams, a detailed description of what the Resilience Agriculture Cluster Project (RACP).

Benefits

* The project will potentially ensure a steady supply of power if it finances solar.

* Also solar will assist us with reducing farming costs in paying for electricity.

* Some of us grow horticultural crops which need a constant supply of water.

* The practice of maintaining of irrigators by construction team helped in maintaining the scheme functional.

* As a community we work as a team which makes us more effective even such that we are prepared to sacrifice the little resources we have to make things happen.

Mashanaland West

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- As a community we work as a team which makes us more effective even such that we are prepared to sacrifice the little resources we have to make things happen.

Zvimba

March Meet - Lazenby Irriq Scheme 1100am 6/10/25

12 Members in the scheme.

Intro

Brief background of RACP, that it builds up from SACP mainly to help farmers to be more productive and better prepared for climate change. eg droughts, heavy rains, extreme storms.

* Focus

* Road rehabilitation - accessibility

* Markets

* Climate smart agriculture

* Solar-powered irrigation

* Restoring land and water sources

*

Questions / Concerns

* Do you have a standing fund or its just a proposal to source funds.

* RACP inputting money but not enough, there are partners but they need an ESMP to help them source for funds.

* Is there a timeframe - Its a process which may take time but no specific date.

* Main concern is that the programs take long.

* The funds do not reach the farmers

* Farmers need to be involved in the programs & distribution of funds and inputs

* ~~Addressed~~ Advised farmers to air their views in the grievance redress mechanism.

* SACP - Rate of movement is too slow since 2022 no interest anymore.

100 horsepower

- * Nothing concrete is coming out of the project
- * It is a ~~process~~ hence, it takes a bit long
- * It seems like the project is starting afresh again.
- * It's now looking into what had been left out by SACB.
- * Sometimes forced to pay money without any feedback from those who bore the money on the way forward.
- * They need markets - but there have to be production first
- * People do not have equipment, since the equipment is now outdated / old.
- * The yields are deteriorating due to poor equipment / infrastructure
- * Surveys being done without any results
- * Main concern is that funds should be available for the project to succeed.
- * Inherited, a dilapidated long scheme with old infrastructure.
- * No cultural concerns in the area.
- * Equipment sometimes comes in at a shot against the numbers on paper.
- * Farmers request to follow ups on the project so that they move forward.
- * Need for a solar irrigation system, what
- * Water is there in abundance but there is need for ~~rebuilding the~~ rehabilitating the scheme for production to take place.
- * Are there monitoring systems on issues of deforestation and wild fires

- * Concerned abt deforestation wch further affect climate change
- * Govt should control these problems.
- * Rules are there but are not being implemented
- * No benches for clean water,
- *

1230pm.

Mtsh West: Shamrock B1 & 2 Irrig Scheme 3:20pm

6/10/25

Introduction

The meeting started with introductions of the SIRDC and RACP members. A brief background of the project was given to the community present.

Benefits

- * Employment creation for the locals
- * Land rehabilitation
- * Solar power will ensure that there is a constant supply of electricity to the field
- * Youths will not go into drug abuse as they are occupied in the fields.
- * Improved livelihoods
- * Improved health

Concerns

- * The 100 horse power pump is too small to cover the 33 hectare area.
- * Dam siltation
- * Irrigation infrastructure is now too old and constantly breakdown
- * Leakedges on the pipes
- * Need for toilets and a borehole for clean drinking water
- * Late payment of farm produce from the GMB.
- * No ECD school nearby, kids walk long distances to school.
- * No roads in the fields.

- * There are no tractors at the scheme
- * Social ills now rampant in the area especially affecting the boy child
- * Booking houses now rampant in the area caused by the influx of artisanal miners
- * Influx of new people in the area causing increase in these social ills.

Expectations / Mitigation Measures

- * Need for the government to quickly pay farmers so that they recover from their expenses
- * Need for new equipment / infrastructure eg hoses, pipes etc
- * ECD school nearby should be built
- * Find measures to curb the continued dam siltation
- * Toilets and bonholes should be built at the scheme
- * Ready market for their farm produce
- * Need for their own market place where they can sell their produce and avoid going to the buyers
- * Need for roads in the fields
- * Fence surrounding the irrig scheme
- * Booking houses for ladies of the plot should be prohibited as this is now affecting the boy child in the area
- * Cultural concerns were addressed already when the irrig project started

Meeting ended at 1630 hours.

Mash West

6,2 ha

Takavinga Irrigation Scheme : 10:30am 7/10/25

Introduction

Brief background of the aim of RACP to the community building up from SACP. And that SIRDF wants there to come up with an ESMP for the project which aims to combat climate change.

Purpose

- * Rehabilitation of feeder roads to the scheme
- * Solar irrigation
- * Markets for the produce
- * Afforestation
- * Smart Agriculture
- * In Equal opportunities for men & women.
- * Climate proofing

Concerns/Expectations

- * Destroyed surrounding fence by elephants
- * Farmers not being paid on time. up to now wheat supplied to GMB last year not yet paid
- * Keep on moving up down to correct
- * 1992 - No help has not come for the farmers
- Now wheat has been destroyed by cows because there is no fence.
- * Canal system now destroyed, so its now difficult to water the scheme.
- * Plan of the scheme need to be expanded.
- * People now sleeping at the dam feeding water into the canal and also sleeping the garden vakarinclira momba.
- * Need markets to sell their produce
- * Need fence around their gardens in the community
- * Need boreholes for water to drink.

⑤

- * Available borehole is not working
- * Expansion work will not affect the community
- * Toilets need to be build in the scheme
- * Road rehabilitation on feeder roads and road leading into the scheme.
- * Irrigation scheme need to be expanded so that the program benefits even the children / youths
- * ~~to~~ structure for meetings
- * Water - need for boreholes in the field for drinking water.
- * ~~Water~~
- * Youth spending time at the fields even at night which may cause social ills
- * No time to read books
- * No cultural disturbances may be encountered, expansion can be done
- * Dam now silted, it also need to be modified so that water can be able to feed into the field.
- * No contour ridges on the farm - causing siltation
- * Chogoror Safari Game Park - 3km - 5km from the scheme. That's where the elephants are coming from.

11:18am.



07/11/25

70 hectares Match Vw

Seke - Sanyati Irrig Scheme, 5:20 pm.

SIRDC consulted to do an ESMP for the upcoming project, RACP which builds up from SACB. This is in line with the climate change mitigation.

Purpose

- * Climate proofing
- * Road rehabilitation
- * Solar powered irrigation
- * Equal opportunities
- * Youth involvement
- * Afforestation
- * Water harvesting
- * Expansion
- *

Concerns / Expectations

- * Need for project to be done quickly
- * 60 hectares not operating - need to be utilised
- * Use of pivots instead of flooding.
- * Infrastructure and equipment need to be rehabilitated
- * Boundary fence need to be installed
- * Damage of equipment by repairs costs
- * ZESA to be moved
- * Road need to be repaired
- * Warehouse needed at the scheme.
- * Well equipment and experienced companies should be contracted to avoid disturbing the produce.
- * Some areas are not fully utilised
- * Cells should work with local leadership

✗ Expectations and promises " not fulfilled

* Solar on the borehole so that water flows
so solar need to be done properly so that
water system.

* Need for a tractor, plough and harrow

* Irrigation scheme not done properly, land leveling
was not done hence many problems.

* Use gradient to water the fields and there is
no problem for water to reach the gardens

✗ 60 hectare area, is safe to expand.

✗ No

✗ Contractors should not interfere with the communities
and stick to their jobs.

✗ Projects should be continuous and not take long
to kick start.

* 60 hectares already have members which are
the children and the surrounding communities

⇒ Mkwinda MUSE scheme
Benefits

✗ Improvement of livelihoods

✗ Food security

✗ Employment creation for the locals / youths

✗ Infrastructure development

*

Mitigation Measures

* Unravoured redress mechanisms

* Solar irrigation system to curb power outages

* More irrigation equipment to improve yields

* Land leveling need to be done in the garden

* Rehabilitation of feeder roads and farm
equipment

13A4

Sanjati: Machehananda West

Chivirirano Irrigation Scheme: 07/10/25 1658

Agritex officer introduced the members present. A brief background of the project was given, that the RACP project builds up from the Smallholder Agriculture Cluster Project. Its main aim was to rehabilitate irrigation schemes by curbing against climate change issues. EITDC was tasked to prepare an Environmental and Social Management Plan for the project.

Purpose

- Road rehabilitation on feeder roads.
- Introduction for solar powered irrigation system
- Climate smart agriculture to cushion against climate change
- Ready markets for farm produce
- Equal opportunities for both men and women
- Restoration of land and water sources.

Concerns / Expectations

- Projects taking too long to commence
- Boundary fence required at the scheme
- Boreholes needed at the scheme
- Need for more equipment to boost irrigation and utilize the centre pivot installed at the scheme
- Water was the main cause of concern for irrigation to kick start of the scheme
- There was need for toilets to be built around the scheme.

Mitigation Measures

- Project commencement shouldn't take too long to commence
- Boundary fence to protect the farm against animals & thieves

- More equipment should be installed at the farm
- Boreholes should be drilled to boost water system.
- Toilets to be built around the scheme.

Benefits of the irrigation scheme

- Food security
- Employment creation
- Improved livelihoods
- Improved lifestyles and wellness
- Inheritance for the next generations

Meeting ended at 6pm

Appendix 18: Chomutamba Meeting Registers

Stakeholder Consultation Register - IFAD (RACP)

09/10/2011

District: Mtsh West

Date: 06/10/25




VENUE: Chomutamba Irrig Scheme


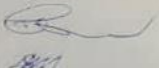

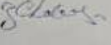
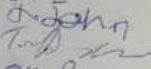
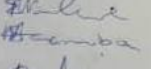
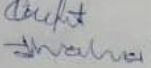
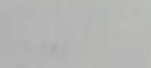
	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	Rocious Marawanyanga	HORTICULTURE	0783732591	F	RM
2	PRESKA MAPERE	HORTICULTURE	0777319675	F	PM
	Ruzengwe Criedra	SACP	0773 518 449	F	Ruzengwe
3	Felistas Chinomwe	Horticulture	0783733101	F	F.C
4	Petros Marumani	Horticulture	0778069218	M	P.M
5	NYAZAI MARINGAPASI	Ground nuts	0778049901	F	Maringapasi
6	Batsirai Chikawore	Horticulture	0777 602 381	M	BC
	ERICK HWAIWA Rusiyaroz	Groundnuts	0776363581	M	ERICK HWAIWA

Chomutamba

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	James Chodewa	Groundnuts	0785593042	M	Chodewa
8	Patricia Chambeni	Horticulture	0782926181	F	Chambeni
9	Pedzisai Mappumo	Groundnuts	- - - - -	F	P. mappumo
10	GIFT Muzhanda	Horticulture	0786644060	M	G.Muzhanda
11	Josephine Kwari	Groundnuts	0783048115	F	J. Kwari
12	Christdun Chikore	Horticulture	0786217127	M	Chikore
13	Oria Chikore	Groundnuts	071215429	M	Oria
14	Cynthia Jari	Groundnuts	0776 1308A	F	A

Chanutamba

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	KARRE JARI	Horticulture	Mketa village	M	
16	Gladys Matere	Groundnuts	071530118	F	G.M
17	Knowledge Materwa	Horticulture	0776497683	F	K.M
18	Gift Materwa	Horticulture	0772553866	M	G.M
19	Angeline Malani	Groundnuts	0776960271	F	
20	IMMANUEL MASZORE	AGRITEC	0772919735	M	
21	Jobab BUDA	Jobab	0777912432	M	Jobab

ERNEST	MACHENGA	0782590607	M	
JOHN	YOUNG	0783230762	M	John
PERKINSON	GOETHE	0772665058	M	
ELSA	MUTSE	0775888001	M	
ZUIDER	CHABUNGA	0784164945	M	
JACKSON	JOHN	0785865567	M	Jackson
ERASMUS	MACHENGA	0774179766	M	
ERNEST	MACHENGA	075772289	M	
COMFORT	CHIKINDA	0771085482	M	
JANUARI	VACHUPA	0787549634	M	Januari
		0779283004	F	

Chanutamba

Appendix 19: Lazenby Irrigation Scheme Meeting Registers

LAZENBY Irrigation Scheme 11am 6/10/25

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	BERNARD NYAMUKARA		PLOT NO 20 LAZENBY FARM DARWENSDALE	MALE	Bpa
16	GREEN MAFUKA		Plot No 22 LAZENBY FARM 310 DARWENSDALE	Female	Mapu
17	RURENGWE CHENDA	SACP	Chimboros Chigabumbura	F	Rure
18	MENGAT MILLION		PLOT NO 21 LAZENBY FARM DARWENSDALE	MALE	Mion
19	LOVEMORE MUNESI		PLOT 16 LAZENBY PO BOX 210 DARWENSDALE	MALE	M Mesi
20	FARAI KAHWA Mapuani Clusuro		PLOT 19 LAZENBY FARM PO BOX 310 DARWENSDALE	MALE Male	Farai Mapuani
21	B Mahuni		310 DARWENSDALE	MALE MALE	Mapuani

A. NIASUSO
S. MILANZI

Plot 26, LAZENBY
310 Box
DARWENSDALE FEMALE ~~Mapuani~~
DARWENSDALE
AGRICT MALE ~~Mapuani~~

Appendix 20: Shamrock B2 Irrigation Scheme Meeting Registers

Shamrock B2 Irrig Scheme 15:34 PM
6/10/25

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	Cecilia Muchemedzi	SACP	Agri Plot 65 Jstg 1 0775266881	F DEO	<i>[Signature]</i>
	DENFORD MASHUKA	SACP	0774281111 Mushanga the chieftain	M DEO	<i>[Signature]</i>
16	Netty Mpashe	Farmer	Plot 11 07249302	F	<i>[Signature]</i>
	Henencia Musengi		Plot 10 0788451043	F	<i>[Signature]</i>
17	Eunice Makwarara		Plot 16 0724944111	F	<i>[Signature]</i>
	Miriam Macheka		Plot 4 0779474472	F	<i>[Signature]</i>
18	Nancy Mwenyeolo		plot 19 0783724452	f	<i>[Signature]</i>
	Maswob chengika	Farmer	Plot 17 0189452855	m	<i>[Signature]</i>
19	Perick Fushan	Farmer	Block one	m	<i>[Signature]</i>
	James Sotik	SACP	Plot 0189472742	F	<i>[Signature]</i>
20	Phanas	SACP	Plot No 8	F	<i>[Signature]</i>
	CLEMENCE MUTINHIRE	FARMER	Block 2 0774420995	M	<i>[Signature]</i>
21	FIND MUMIRWA	FARMER	Plot No 13 B2 0787248097	M	<i>[Signature]</i>
	MAXWELL MARIHWI	Farmer	Block 2 0777561307	M	<i>[Signature]</i>
	TARZEN MAKOMBE	SACP	0784693558	M	<i>[Signature]</i>
	TAKESURE MAGAMA	SACP	0773779003	M	<i>[Signature]</i>
	Sarah Cherykoi	Farmer	0714821813	F	<i>[Signature]</i>
	Joseph Mulkapari	Farmer	Plot 3 MUSHANA Cwaqutu Block 2	M	<i>[Signature]</i>

Appendix 21: Takavinga Irrigation Scheme Meeting Registers

C Takavinga Irrigation SANJATI

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	Shamiso Muzanwa GIBSON TACH	SRDC Farmer	Harare TAVINGA	Female M	Shamiso Gibson
16	Pardon Zimshwera LUCKSON TAYYA	FARMER FARMER	Takavinga TAKAVINGA	M M	Pardon Luckson
17	Z Dzava				
18	Ciracions Chingwira	Farmer	Mudzvingwa	F	Chingwira
19	Elizabeth Chisanga	Farmer	Mudzvingwa	F	Elizabeth
	Lucia Mubvumba	Farmer	Mudzvingwa	F	Lucia
20	Constance Moyo	Farmer	Takavinga	F	C.P
	Dorothy Mubombindo	Farmer	Takavinga	F	Dorothy
21	Evelyn Muzanwa	Farmer	Takavinga	F	Evelyn
	NOMISA MUDJJI	Farmer	Takavinga	F	N.M

C Takavinga Sanjati National Meet

Name and Surname	Department	Address & contact Number	Gender &	Signature
Sally Timire	Farmer	Takavinga	M F	Sally
Emiller Muzenje	Farmer	Takavinga	M F	EM
Z Dzava				
GIBSON TACHI	FARMER	TAKAVINGA	M	Gibson
Dennis Muzenje	Farmer	Takavinga	M	Dennis
Giffi Mudzingwa	Farmer	Takavinga	M	Giffi
Pardon Zimshwera	Farmer	Takavinga	M	Pardon
LUCKSON Moyo	FARMER	TAKAVINGA	M	Luckson

Appendix 22: Seke Sanyati Irrigation Scheme Meeting Registers

	Frs: Name of Participant	St. name	Gender (M/F)	Date of birth	National ID	Gender of Household head (WHH/MH/H)	Contact Number	Signature of Participant
11	Esnath	Sibanda	F	1976	63-107998	MHH	0786491101	[Signature]
12	LAINAH	ILANOMANO	F	1971	24-086106224	MHH	0779993471	[Signature]
13	FUNZI	MUCHIBWA	F	1971	24-557526	MHH		[Signature]
14	EMETA	MUNENGWANI	F	26	14-0588426	MHH		[Signature]
15								
16								
17								
18								
19								
20								
21								
22								
23								

Name of Training Coordinator..... Signature:..... Date.....

Name of Authorising Officer..... Signature:..... Date.....

Appendix 23: Chiwirirano Meeting Registers

CHIWIIRIRANO IRRIGATION

DAILY REGISTRATION OF PARTICIPANTS AT SACP TRAINING WORKSHOPS

Name of Training: ESMP
 Date of Training: 07/10/2025
 Activity Reference # as per AWPB: _____
 Topics Covered: _____
 Venue: CHIWIIRIRANO NAME STEAD
 Partner Organizing Training: STESSC / SACP / NAGATEX

	First Name of Participant	Surname	Gender (M/F)	Date of Birth	National ID	Gender of Household head (WHH/MHH)	Contact Number	Signature of Participant
1	LUTHERAIS	TAKAURA	M	02/06/30	58-124840558	MHH	0712 026066	<i>[Signature]</i>
2	CLEMENCE	PAPISANI	M	04-09/10	26-07850526	MHH	0755730111	<i>[Signature]</i>
3	DOKIAS	Mujayo	M	06/01/17	06-02215506	M.H.H	0787224333	<i>[Signature]</i>
4	Tinezi	mudjico	M	03/11/88	24-17221442	M.H.H	0774711885	<i>[Signature]</i>
5	GIFT M	MADAMB	M	01/10/76	25-018601923	M.H.H	0775260404	<i>[Signature]</i>
6	BOTHWELL	KAPFURUTSA	M	13/10/86	24-15573645	M.H.H	0774323207	<i>[Signature]</i>
7	STEPHEN	CHOLIMWE	M	10/11/79	24-11291024	M.H.H	0785547191	<i>[Signature]</i>
8	ALBERT	MADENYIKA	M	19/11/76	24-113860324	M.H.H	0785267430	<i>[Signature]</i>
9	VOTE	MANISWA	M	06/06/85	23-05564823	M.H.H	0785347010	<i>[Signature]</i>
10	NYARADOZO	NDAHWI	F	03/04/86	23-00358623	F.H.H	0788994120	<i>[Signature]</i>

	First Name of Participant	Surname	Gender (M/F)	Date of Birth	National ID	Gender of Household head (WHH/MHH)	Contact Number	Signature of Participant
11	NORUMUS	SIRANDA	F	04/09/23	24-25912956	M.H.H	0773353091	<i>[Signature]</i>
12	Virginia	Ncube	F	23/04/22	24-10040853	WHH	N/A	<i>[Signature]</i>
13	JULIAS	KADZISI	F	15/12/83	23-08368193	M.H.H	0779833971	<i>[Signature]</i>
14	REGINA	Ncube	F	03/07/76	24-25917923	WHH	078022991	<i>[Signature]</i>
15	SHYLIND	MUNATSI	F	22/03/73	24-06261502	WHH	0774690457	<i>[Signature]</i>
16	DORREN	MANJONTO	F	11/12/70	24-21498024	WHH	077256830	<i>[Signature]</i>
17	Alice	KADZISANDE	F	30/01/89	24-77078282	M.H.H	0778733125	<i>[Signature]</i>
18	JOGA	LUNGA	M	26/02/47	26-01476422	M.H.H	0785547010	<i>[Signature]</i>
19	TAAWISA	SORRE	M	15/09/84	24-155740193	M.H.H	0779833971	<i>[Signature]</i>
20	MACHAKA	MURIMIRA	M	07/07/48	27-05228502	M.H.H	0715810587	<i>[Signature]</i>
21	MOSI	CHAIKWEI	M	15/02/83	24-153375503	M.H.H	071566347	<i>[Signature]</i>
22	ANDREW	MADZIMURE	M	23/08/77	24-09138232	M.H.H	0786486104	<i>[Signature]</i>
23	Big	Makombwa	M	10/03/69	26-04628026	M.H.H	078034991	<i>[Signature]</i>

Name of Training Coordinator: _____ Signature: _____ Date: _____
 Name of Authorising Officer: _____ Signature: _____ Date: _____

DISTRICT DEVELOPMENT 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 MASHONALAND WEST 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/Ms/Dr/Prof/Rev) & Name Dube Tikhah Benedate
- b) Occupation/ Designation District Development Economist
- c) Organization: Local Government Landline: 2122033
- d) Physical Address Fitt Square P.O Box 490 Kwekwe
- e) Email Address: doban@tikhah.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland West Prov 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, Reduced impact of climate change to the community

DISTRICT DEVELOPMENT CORDINATOR

Road infrastructure development, maintenance of vegetation activities

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

Yes No

If yes explain

Construction might affect existing infrastructure like buildings

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

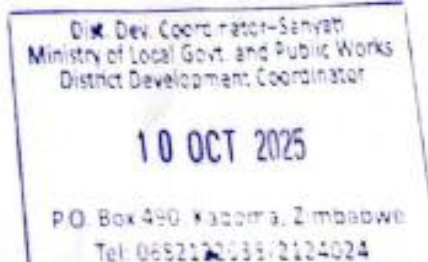
8. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent?

Changes to water flow, soil quality, or ecosystems could affect local wildlife and vegetation; Displacement or relocation of communities
Benefits might not be easily distributed

Signature [Signature]

Date 10 / 10 / 25

DATE STAMP:



ORGANISATION 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 MASHONALAND WEST PROVINCE.

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RESPONDENTS INFORMATION

- a) Title (Mr/Mrs/Dr/Prof/Rev) & Name Matope D.
- b) Occupation/ Designation Planning Officer
- c) Organization: Sanyati Rural District Council - 068 22408
- d) Physical Address 101 of Warwick Street, Kadoma
- e) Email Address: Sanyatordc@gmail.com

PROJECT INFORMATION

1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland West 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?
Food security, improved nutrition source, infrastructure upgrade and development (water), Technology and skills transfer in agriculture and water management, Modernising farming, Improved earnings from farming, community cohesion, upgrade and creation of business centres

ORGANISATION Banyati Rural District Council

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

If yes explain
- Road networks must be rehabilitated for ease flow of inputs and transport to markets.
- Processing plants, warehouse and retail outlets must be established/developed.

6. Are there any cultural/heritage sites located in the project area? Yes No
Traditional leaders to be consulted

7. If yes what is expected of the Developer by the Community?
The developer must preserved the sites and lend any support as advised by traditional leaders and the DDC office.

8. Are there any socio-economic, environmental or other concerns that you would like to address to the proponent? Soon
Project shall result in urban to rural migration which will put pressure on resource, physical and social infrastructure, contamination of tradition/custom and the natural environment.

Signature Platope Date 09/10/25

DATE STAMP:

PLANNING ENGINEERING AND
ROADS WORKS DEPT
BANYATI RURAL DISTRICT COUNCIL
P. O BOX 240
KADOMA
DATE 09-10-25
SIGNATURE Platope

Appendix 26: Zvimba DDC Questionnaire

DISTRICT DEVELOPMENT 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 MASHONALAND WEST PROVINCE.

Introduction.

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RESPONDENTS INFORMATION

- a) Title (Mr/Mrs/Dr/Prof/Rev) & Name MURAMBEDZI PATIENCE M
- b) Occupation/ Designation ADD C
- c) Organization: LOCAL GOV Landline: 0672152059
- d) Physical Address ZVIMBA DDC OFFICE BOX 2010 MURAMBEDZI
- e) Email Address: murambedzi@gtmail.com

PROJECT INFORMATION

- 1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland West 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 YIELDS CAN BE OBTAINED FROM THE RESILIENT AGRICULTURE

Dist. Dev. Coordinator-Zvimba
Ministry of Lands, Agriculture, Fisheries, Water and Rural Development
District Development Coordinator
28 OCT 2025
P.O. Box 2010, Murambedzi, Zim.
Tel: 0672152059/2152014

DISTRICT DEVELOPMENT CORDINATOR

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

Yes No

If yes explain

N/A

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?

These would be addressed since the whole project is under climate proofing and resilient Agriculture practices, this should in all its form address any environmental challenges likely to be met on the

Signature [Signature]

Date 28 / 10 / 25

DATE STAMP:

Dist. Dev. Coordinator-Zvimba
Ministry of Local Govt. and Public Works
District Development Coordinator
28 OCT 2025
P.O. Box 2010, Murompedzi, Zim.
Tel: 0672152059/2152014

Appendix 27: Zvimba RDC Questionnaire

RURAL DISTRICT COUNCIL CEO

QUESTIONNAIRE FOR SOLICITING VIEWS OF KEY INFORMANTS FOR THE MINISTRY OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT - RESILIENCE AGRICULTURE CLUSTER PROJECT (RACP) IN THE MASHONALAND WEST 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 REMEMBER SHUMBA
- b) Occupation/ Designation ENVIRONMENT OFFICER
- c) Organization: ZVIMBA RDC Landline: 08677007012
- d) Physical Address 156 NYAMANGARA ROAD, ZVIMBA
- e) Email Address: rshumba@zvimbardc-co.zw

PROJECT INFORMATION

- 1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland West 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?

Full utilisation of land as irrigation farming facilitates growing of crops through out the

Appendix 28: Chegutu DDC Questionnaire

DISTRICT DEVELOPMENT COORDINATOR

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 WEST PROVINCE

Introduction:

The Scientific and Industrial Research and Development Centre (SIADC) 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 enhance and diversify smallholder farming in selected districts of Zimbabwe through the rehabilitation and expansion of irrigation schemes, construction of concrete 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/Ms/Dr/Prof/Rev) & Name: EDDARA NDOA
- b) Occupation/Designation: DISTRICT DEVELOPMENT COORDINATOR
- c) Organisation: DDC OF MASHONALAND WEST PROVINCE
- d) Physical Address: Corner Hwange Road and Plumtree Street Chegutu
- e) Email Address: eddara@ddc.gov.zw

PROJECT INFORMATION

- 1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland West 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 irrigation infrastructure which enhances food production which leads to food security and also improve community life

DISTRICT DEVELOPMENT COORDINATOR

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

Yes No

If yes explain:

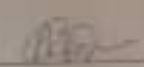
5. Are there any cultural/heritage sites located in the project area? Yes No

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

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

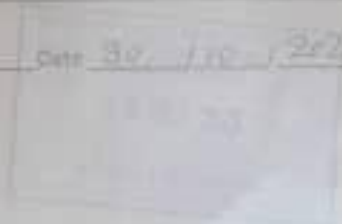
NO

Signature



Oct 30, 2022

DATE STAMP



Appendix 29: Chegutu RDC Questionnaire

RURAL DISTRICT COUNCIL- CEO

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

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RESPONDENTS INFORMATION

- a) Title (Mr/Mrs/Dr/Prof/Rev) & Name DAN M. ZUOBAO
- b) Occupation/ Designation CEO
- c) Organization: CHEGUTU RDC Landline: 086215 2257
- d) Physical Address NO. 3 ALEXANDRA AVENUE, CHEGUTU
- e) Email Address: admin@cheguturdc.co.zw

PROJECT INFORMATION

- 1. Are you aware of the proposed Resilience Agriculture Cluster Project (RACP) in Mashonaland West 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 for the youth and women
- upgrading of feeder roads
- construction of rainwater harvesting facilities

RURAL DISTRICT COUNCIL- CEO

- installation of multi-hazard early warning systems

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

6. Yes ; No

If yes explain

- deforestation

- land degradation

- change of use

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

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


- further consultations of cultural leaders of the communities

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

- encourage afforestation

- water conservation

- environmental education


RURAL DISTRICT COUNCIL
CHIEF EXECUTIVE OFFICER
23 OCT 2025

Signature

Date 23 / 10 / 25

DATE STAMP: PO BOX 13 CHEGUTU/TEL: (068215) 2257
NO. 3 ALEXANDRA AVE, CHEGUTU

Appendix 30: Labour Management Plan (LMP) – RACP Mashonaland West

The Labour Management Plan for the Resilience Agriculture Cluster Project in Mashonaland West 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.

Occupational Health and Safety Clauses for Inclusion in Contracts

1. General Hygiene Requirements

The Contractor shall provide and maintain clean and adequate sanitation facilities, safe drinking water, and handwashing points at all work sites. Workers shall be trained on personal hygiene practices, proper waste disposal and the prevention of waterborne and communicable diseases. Eating areas must be kept clean and separate from hazardous work zones. The Contractor shall ensure that accommodation, where provided, meets basic hygiene standards, including regular cleaning, proper ventilation and safe waste handling.

2. HIV and Health Awareness

The Contractor shall implement HIV and general health awareness activities for all workers, including basic information on prevention, voluntary testing options and stigma reduction. The Contractor shall allow periodic outreach sessions by local health officers or recognised service providers. No worker shall be discriminated against on the basis of health status. Condoms shall be made freely available at designated points, and workers shall be informed of local health facilities where they can access further services.

3. Chance-Finds Procedure

The Contractor shall immediately stop work in the event that any cultural, archaeological, historical, or human remains are encountered during construction. The area shall be secured and reported to the supervising engineer and the responsible local authority without delay. Work shall not resume until written clearance is granted by the competent authority. Any attempt to remove, alter, or interfere with a chance find is strictly prohibited and shall be grounds for contract penalties or termination.

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.

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, which include; Mashonaland East, Mashonaland West, Mashonaland Central, Midlands, and Matabeleland. The SEP is central to ensuring that smallholder irrigation rehabilitation, village business unit support, and associated climate-smart agricultural interventions are designed and implemented with full participation and oversight of the communities and institutions they intend to benefit. The plan responds directly to the expectations of the African Development Bank's Integrated Safeguards System (OS1 and OS10) and the IFAD SECAP Standards, which require meaningful participation, information disclosure, grievance redress, and robust monitoring systems throughout the project cycle.

RACP operates in areas where agriculture, food security, and community resilience are deeply affected by climate variability, limited infrastructure, and historic underinvestment. Effective engagement is therefore essential for aligning project interventions with community priorities, addressing institutional capacity gaps, and strengthening local governance systems. The SEP ensures that farmers, women, youth, vulnerable groups, traditional leadership structures, district authorities, provincial departments and national ministries all participate actively at every stage of the project. Learning from other AfDB-financed SEPs such as ZAVaCEP, the RACP SEP incorporates gender-responsive approaches, targeted stakeholder profiling, participatory monitoring, and locally appropriate communication channels that improve outreach in rural and hard-to-reach communities.

The SEP outlines a comprehensive stakeholder mapping that identifies local communities, IMCs, water users, district technical teams, catchment institutions, environmental regulators, private sector actors, and development partners. Engagement processes are adapted to the needs of each group, ensuring that consultations occur in local languages, at accessible venues, and through methods suitable for rural communities, including field demonstrations, focused group discussions for women and youth, village-level awareness sessions, and district and provincial multi-sectoral coordination meetings. The plan also establishes a harmonised system linking scheme-level management structures with district and provincial stakeholders, supported by the national Project Management Unit. This ensures consistent communication, coordinated planning, and timely reporting across all provinces.

A central feature of the SEP is the integrated Grievance Redress Mechanism (GRM), which provides multiple safe entry points for communities to register concerns related to land management, construction works, labour practices, safety, water distribution, inclusion, and potential social risks including SEAH/GBV. The GRM is designed to be accessible to all stakeholders, with confidential channels for sensitive cases and structured escalation processes from scheme to district, provincial, national, and when necessary development partner levels. The system emphasises timely resolution, fairness, documentation, and feedback to complainants, strengthening community trust and compliance with AfDB and IFAD safeguards.

The SEP provides a detailed implementation structure, specifying roles and responsibilities for Agritex extension officers, district development coordinators, RDCs, ZINWA, EMA, irrigation and mechanisation departments, PIU safeguards staff, contractors, IMCs and WUAs. Provincial departments provide oversight and harmonisation across districts, while the PMU consolidates monitoring data, coordinates risk management, ensures adherence to the SEP and GRM, and reports regularly to AfDB and IFAD. The plan incorporates capacity-building provisions, recognising gaps in

community facilitation, safeguards understanding, gender-responsive communication, documentation, and participatory monitoring which emerged during scoping consultations.

The SEP includes a monitoring and evaluation framework that tracks engagement quality, gender and youth participation, grievances received and resolved, behavioural change outcomes, stakeholder satisfaction, and documentation quality. Reporting is undertaken quarterly at district and provincial levels and is consolidated nationally for submission to IFAD and AfDB. This ensures consistent oversight and allows early identification of operational risks, emerging conflicts, and areas requiring corrective action.

Overall, the SEP positions RACP as an inclusive, socially anchored and community-responsive investment. It strengthens institutional collaboration, builds local ownership, enhances transparency, and ensures that project benefits reach intended groups equitably. Through this SEP, RACP commits to a standard of engagement suitable for AfDB and IFAD-funded operations—continuous, gender-responsive, conflict-sensitive, well-documented, and fully integrated with environmental and social risk management systems that safeguard people, ecosystems, and long-term development outcomes.

ABBREVIATIONS

Abbreviation	Meaning
AGRITEX	Agricultural Technical and Extension Services
AfDB	African Development Bank
BVO	Business Venture Officer
DDC	District Development Coordinator
EMA	Environmental Management Agency
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussion
GBV	Gender Based Violence
GRM	Grievance Redress Mechanism
IMC	Irrigation Management Committee
IPM	Integrated Pest Management
IPMP	Integrated Pest Management Plan
IFAD	International Fund for Agricultural Development
ISS	Integrated Safeguards System
MLAFWRD	Ministry of Lands, Agriculture, Fisheries, Water and Rural Development
NGO	Non Governmental Organisation
O and M	Operation and Maintenance
OS	Operational Safeguard
PDC	Provincial Development Coordinator
PIU	Project Implementation Unit
PMP	Pest Management Plan
PMU	Project Management Unit
RACP	Resilience Agriculture Cluster Project
RDC	Rural District Council
SCC	Sub Catchment Council
SECAP	Social, Environmental and Climate Assessment Procedures
SEP	Stakeholder Engagement Plan

SEAH	Sexual Exploitation, Abuse and Harassment
UDC	User Development Committee
WUA	Water Users Association
ZINWA	Zimbabwe National Water Authority

DEFINITIONS

Term	Definition
Affected Persons	Individuals, households or groups directly impacted by project activities in ways that may be positive or negative.
Community Stakeholders	Members of local communities who may be influenced by irrigation rehabilitation or agricultural activities.
Consultation	A process of dialogue aimed at sharing information, obtaining views and responding to community concerns.
Disadvantaged or Vulnerable Groups	Individuals or households that may have limited ability to participate effectively due to age, gender, disability, poverty or marginalisation.
Disclosure	The sharing of project information in a clear and accessible manner prior to decision making and during project implementation.
Engagement	Continuous interaction with stakeholders that includes communication, participation and consultation.
Environmental and Social Safeguards	Standards and procedures that ensure projects avoid or minimise negative environmental and social impacts while enhancing positive benefits.
Focus Group Discussion	A discussion with a small group of individuals who share common characteristics or experiences to gather views that may not come out in larger meetings.
Grievance	Any concern, complaint or dissatisfaction raised by a stakeholder regarding project activities or impacts.
Grievance Redress Mechanism	A transparent and accessible system that receives, records, assesses and resolves grievances in a timely manner.
Information Disclosure	The provision of relevant project information so that stakeholders can participate meaningfully and make informed decisions.
Irrigation Management Committee	A committee representing irrigators responsible for day to day coordination and communication at scheme level.
Meaningful Participation	The involvement of stakeholders in a manner that gives them adequate time, information and opportunity to influence decisions.
Monitoring	The continuous assessment of consultation activities, grievance handling and engagement quality to ensure effective implementation of the SEP.
Project Affected Parties	Individuals or groups that may experience direct impacts from project works or operations.
Safeguards Specialists	Environmental and social professionals responsible for ensuring compliance with IFAD and AfDB requirements.
Stakeholder	Any person, group or institution that may be affected by or have influence over project outcomes.
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 being implemented in five provinces: Midlands, Mashonaland West, Mashonaland East, Mashonaland Central, and Matabeleland North. RACP is being 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 existing irrigation schemes across the five provinces, as well as associated catchment restoration, market infrastructure development, and village business units. These clusters fall within the Gwayi, Sanyati, Mazowe and Manyame Catchments, where irrigation systems, water storage structures, roads, and market facilities have deteriorated due to climate shocks, inadequate maintenance, and resource constraints.

The RACP SEP is designed to ensure inclusive, meaningful and continuous engagement with all stakeholders throughout the project cycle, planning, construction, operation, and closure. It also ensures alignment with:

AfDB Integrated Safeguards System (ISS, OS1 & OS10): requiring robust stakeholder identification, systematic consultation, disclosure, and a functional grievance mechanism.

IFAD SECAP Standards (SECAP 1 and 2): requiring early engagement, participation of vulnerable groups, incorporation of environmental and social risk feedback, and community involvement in implementing safeguard measures.

The SEP complements several Standalone Management Plans that are part of the project safeguard instruments, notably:

The Grievance Redress Mechanism (GRM) Plan, which details how all project-related grievances, including labour, land access, irrigation scheduling, infrastructure works, and GBV/SEA, are received, recorded, processed, and resolved.

The Pest Management Plan (PMP/IPMP), which guides stakeholder participation in safe pesticide use, farmer training, integrated pest management demonstrations, and reporting of pesticide-related incidents.

This approach ensures that all environmental and social concerns arising from irrigation rehabilitation, construction activities, catchment restoration, and operational responsibilities are addressed collaboratively with stakeholders at national, provincial, district, ward, and scheme level.

1.2 Purpose of the Stakeholder Engagement Plan

The purpose of the SEP is to establish a coordinated and structured engagement process that:

Facilitates transparent, continuous information flow between the project and stakeholders.

Ensures that project-affected persons (PAPs) particularly women, youth, vulnerable groups and farmers to participate meaningfully in planning and implementation.

Provides a platform for early identification of risks and opportunities, improving project decisions and ownership.

Strengthens institutional coordination across IMCs, AGRITEX, District Planners, RDCs, Irrigation Departments, Mechanisation, and Provincial and National PMUs.

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

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 Mashonaland West SEP are to:

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.

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.

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

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

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

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

Integrate stakeholder feedback into project decision-making

Through structured reporting, feedback loops, and participation in local monitoring.

2. LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK FOR SEP

Stakeholder engagement under the RACP in Zimbabwe is governed by a combination of national legislation, local authority frameworks, sectoral regulations, and development partner safeguard requirements. This chapter outlines the regulatory and policy context that guides consultations, disclosure, participation, and grievance handling. It situates the Stakeholder Engagement Plan (SEP) within Zimbabwe's statutory obligations and the safeguards frameworks of the African Development Bank (AfDB ISS, 2023) and the International Fund for Agricultural Development (IFAD SECAP, 2021). The chapter also clarifies linkages to the standalone Grievance Redress Mechanism (GRM) and Pest Management Plan (PMP), both of which contain procedures that must be communicated through the SEP.

2.1 National Legislative Framework

Zimbabwe's environmental and social governance system places stakeholder participation, transparency, environmental protection, and public consultation at the centre of development planning. Several statutes directly require, support or inform project-level engagement processes.

2.1.1 Environmental Management Act [Chapter 20:27]

The Environmental Management Act (EMA) remains the backbone of environmental governance in Zimbabwe, requiring public participation at all stages of environmental assessment and compliance monitoring. Part II of the Act obligates developers to undertake Environmental Impact Assessment (EIA) processes for prescribed activities, including irrigation scheme development, dam rehabilitation, and water infrastructure. The Act requires that all potentially affected stakeholders be consulted in a meaningful and timely manner.

The Environmental Management (Environmental Impact Assessment and Ecosystem Protection) Regulations, 2007, expand on this requirement by specifying that:

Communities and interest groups must be consulted at scoping, assessment, and review stages.

Minutes of meetings, attendance registers, and concerns raised must be documented and included in environmental reports.

Developers must adopt mitigation measures that reflect community concerns.

Given the strong emphasis on irrigation rehabilitation, catchment restoration, and market infrastructure, RACP is fully subject to these provisions. The project's SEP therefore operationalises this legislative requirement by providing structured consultation pathways across planning, construction, operation and decommissioning phases.

2.1.2 Rural District Councils Act [Chapter 29:13]

Rural District Councils (RDCs) are the statutory local planning authorities. The Act mandates RDCs to:

Approve development activities in their districts

Coordinate ward-level consultations

Provide oversight on land use, water access and community welfare

Support grievance management at community level

Under RACP, RDCs are central partners in community mobilisation, verification of stakeholder lists, monitoring of project works, and escalation of grievances that cannot be resolved at IMC, AGRITEX or scheme level.

2.1.3 Water Act and ZINWA Act

Irrigation rehabilitation and abstraction under RACP fall under the Water Act and Zimbabwe National Water Authority (ZINWA) Act. These laws require:

Consultation with water users during allocation and renewal of water permits

Adherence to catchment outline plans developed with stakeholder participation

Notification of communities during major works affecting dams, canals and weirs

The SEP ensures that engagement with farmers, IMCs, Water User Associations (WUAs), and ZINWA sub-catchment councils occurs before construction works affecting water flows or storage capacities.

2.1.4 Public Health Act

Public health considerations are essential during construction and operation of irrigation and market infrastructure. The Act assigns duties to local authorities and district health offices to guard against community health risks such as:

Waste mismanagement

Water contamination

Vector breeding

Occupational and community health hazards

This SEP supports compliance by integrating public health messaging and awareness at community meetings, pre-construction briefings, and OHS sessions delivered jointly with district health officers.

2.1.5 Labour Act and NEC Agriculture Regulations

Labour engagement requirements influence the SEP because contractors and labourers must be informed of:

Terms of employment

Rights under NEC Agriculture

OHS responsibilities

Sexual exploitation and abuse (SEA) prohibitions

Reporting channels under the GRM

The SEP aligns with the Labour Management Plan (LMP) and will ensure that community workers, casual labourers, contractors and farmer groups are informed of their rights, obligations and grievance pathways.

2.1.6 Other Relevant Legislation

Several additional laws support stakeholder engagement:

Parks and Wildlife Act (biodiversity consultations and protection near natural habitats)

Forest Act (community involvement in tree planting and fire management)

Traditional Leaders Act (coordination with chiefs, headmen, village heads)

Devolution and Decentralisation Policy (participatory planning and local accountability)

Together, these provide a robust national framework supporting community-centred engagement.

2.2 Development Partner Requirements

The RACP is funded by AfDB and IFAD, both of which require comprehensive stakeholder engagement consistent with international good practice. Stakeholder engagement is therefore not only a national legal obligation but a binding donor requirement.

2.2.1 AfDB Integrated Safeguards System (ISS, 2023)

OS1 – Environmental and Social Assessment

Operational Safeguard 1 mandates early identification of stakeholders and assessment of their concerns during project design. It requires two-way engagement throughout all phases of a project, including disclosure of E&S documents and systematic integration of community feedback. The OS emphasises that vulnerable groups (women, youth, elderly farmers, people with disabilities) must be meaningfully represented in decision-making.

The SEP operationalises OS1 by:

Ensuring continuous engagement with communities throughout the ESMP cycle

Providing specific platforms for the participation of marginalised groups

Integrating engagement feedback into environmental and social management measures

OS10 – Stakeholder Engagement and Information Disclosure

OS10 establishes mandatory requirements for:

Stakeholder identification and analysis

Development of an SEP as part of the E&S system

Free, prior and informed participation

A functional grievance redress mechanism

Monitoring and reporting of engagement effectiveness

RACP's standalone GRM Plan fully meets OS10 requirements and is referenced throughout the SEP, especially in sections on grievance escalation, GBV-sensitive reporting, and community information disclosure.

2.2.2 IFAD Social, Environmental and Climate Assessment Procedures (SECAP, 2021)

SECAP 1 – Environmental and Social Assessment

SECAP 1 requires systematic stakeholder engagement during screening, assessment and the implementation of mitigation measures. It emphasises:

Early disclosure of project information

Participation of project-affected people in risk identification

Incorporation of local knowledge into the ESMP and associated plans

This SEP ensures these requirements are fulfilled through structured, inclusive consultations at scheme, ward, district, province and national levels.

SECAP 2 – Biodiversity, Ecosystems and Natural Resource Management

Because RACP includes catchment restoration, gully reclamation, riverbank protection and dam desiltation control, SECAP 2 is triggered. The standard requires consultation with:

Local communities using natural resources

Traditional leaders

ZINWA and EMA

Farmer groups and water users

The Pest Management Plan (PMP) also derives from SECAP 2, and thus stakeholder engagement under this plan is covered within the SEP.

Other Relevant SECAP Themes

While SECAP 1 and 2 are the primary standards for the SEP, engagement also supports:

SECAP 5 (Labour and Working Conditions) through contractor consultations and worker awareness

SECAP 6 (Community Health and Safety) through OHS consultations and risk communication

SECAP 9 (Climate Risk and Resilience) through climate-smart training and awareness sessions

SECAP 10 (Stakeholder Engagement & GRM) through clear grievance pathways

2.3 Institutional Framework for Stakeholder Engagement

The implementation of the SEP in Mashonaland West requires coordinated action across multiple institutions at national, provincial, district, ward and scheme levels. These are the networks through which information flows, decisions are made, and grievances are escalated.

2.3.1 National Institutions

National PMU (Project Management Unit) under MLAFWRD oversees SEP implementation, resource allocation, reporting and compliance with AfDB and IFAD requirements.

MLAFWRD Directorate provides technical oversight on irrigation components and leads national-level disclosure.

2.3.2 Provincial Institutions

Provincial AGRITEX Office leads farmer mobilisation, AGRITEX extension coordination, and technical backstopping.

Provincial Irrigation and Mechanisation Departments supervise engineering works, maintain communication with district officers, and verify issues raised via the GRM.

Provincial Development Coordinator (PDC) ensures alignment with provincial development strategies.

2.3.3 District Level Institutions

District Development Coordinator (DDC) plays a central governance role, chairing multi-stakeholder engagements, validating district-level plans, and coordinating dispute resolution.

Rural District Councils (RDCs) handle local planning approvals, land use coordination, and grassroots mobilisation.

District AGRITEX Officers lead technical engagement with farmers, support IMCs, and bridge communication between PMU and communities.

District SACP/RACP Agricultural Extension Officer ensures consistency of engagement methods with ongoing government and donor programmes.

2.3.4 Ward and Community Level Institutions

Irrigation Management Committees (IMCs) and WUAs serve as the primary interface between farmers and project implementers. They oversee day-to-day scheme governance, water distribution, conflict resolution, and grievance intake.

Traditional Leaders (Chiefs, Headmen, Village Heads) play a critical role in local legitimacy, mobilisation and consensus building.

Farmer Groups, Women Associations and Youth Representatives ensure broad-based inclusion and equity.

2.4 SEP Linkages with the GRM Plan and the Pest Management Plan

2.4.1 Grievance Redress Mechanism (GRM)

The GRM Plan provides detailed procedures for handling complaints related to:

Construction works

Water distribution conflicts

Dam and canal safety concerns

Labour disputes

SEA/GBV incidents

Pesticide-related health hazards

This SEP supports GRM implementation by ensuring communities understand:

Where to report grievances

Who receives complaints (IMCs, AGRITEX, Scheme GRM Focal Points)

How grievances are escalated to district and national PMU levels

How SEA/GBV cases follow survivor-centred pathways

2.4.2 Pest Management Plan (PMP)

The PMP/IPMP contains community-sensitive elements requiring active participation, including:

Training on safe pesticide use and handling

Triple-rinsing procedures and empty container return schemes

Hazard awareness relating to agrochemical exposure

Promotion of non-chemical alternatives and Integrated Pest Management (IPM)

Reporting pesticide poisoning cases through the GRM

This SEP integrates PMP requirements by ensuring that:

AGRITEX officers lead pesticide-related community training

IMCs coordinate safe storage and collective handling practices

District health offices participate in awareness sessions

Community feedback on pesticide risks informs PMP updates

3. PRIORITY ENVIRONMENTAL AND SOCIAL RISKS FOR SEP

The RACP spans five provinces; Mashonaland Central, Mashonaland East, Mashonaland West, Midlands and Matabeleland North. Although each province has distinct agro-ecological features, the environmental and social risks identified in the irrigation schemes represent the typical risk profile across all targeted irrigation schemes under RACP. The nature of communal irrigation, rural water systems, catchment degradation, shifting climate patterns, and socio-economic conditions means that risks tend to recur in similar forms at scheme, district and provincial levels.

Stakeholder engagement is therefore essential for all provinces, districts and wards, ensuring that communities, traditional leaders, scheme governance structures, district authorities, provincial technical departments and project implementers participate in identifying, mitigating and monitoring risks across the full RACP footprint.

3.1 Water Resource Pressure, Abstraction Conflicts and Inequitable Distribution

Across all provinces, irrigation schemes rely on rivers, dams and weirs managed by ZINWA under various catchment councils. Climate variability has reduced water reliability, resulting in:

Seasonal water scarcity

Competition among upstream and downstream users

Inequitable intra-scheme distribution during peak periods

Rising conflict between irrigation and livestock water demands

Community concerns over new pump capacities or enlarged command areas

These risks were observed in Midlands and Matabeleland North through RACP reconnaissance visits and district-level consultations.

Stakeholder engagement is required to:

Clarify abstraction rights, water permits and seasonal flows

Clarify land rights and tenure.

Facilitate dialogue between ZINWA, IMCs, AGRITEX and farmers

Share information on design changes that affect water demand

Integrate water-saving approaches promoted under IFAD SECAP

Strengthen conflict resolution through the GRM

AfDB OS1 and OS4, as well as SECAP 2, mandate transparent water resource consultations.

3.2 Catchment Degradation, Siltation and Dam/Canal Vulnerabilities

Dam siltation, streambank cultivation, veld degradation and gully erosion affect irrigation schemes all five provinces.

Typical cross-province risks include:

Rapid siltation of upstream rivers feeding dams

Trees and shrubs growing on dam embankments

Failure of canals due to erosion or collapsed embankments

Gully expansion threatening headworks and roads

Unregulated land clearing and deforestation

Stakeholder engagement is required to support:

Dam embankment maintenance

Catchment protection committees

Ward-level natural resource management dialogues

Community-based erosion control training

EMA-led environmental awareness sessions

These risks activate SECAP 2 and AfDB OS1 requirements for participatory resource management.

3.3 Deteriorated or Hazardous Irrigation Infrastructure

Across all five provinces, ageing irrigation infrastructure presents multiple risks:

Exposed or undersized electrical cables (e.g., Chipipa)

Faulty pump houses lacking secure cages

Vandalism and theft of electrical components and transformers

Dilapidated night storage dams

Mainline leakages (e.g., Mutondwe, Principe)

Stakeholder engagement must address:

Community awareness of electrical and mechanical hazards

Consultations on the 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 Mashonaland West 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 46**.

Table 46: 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 scheme, 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 47**.

Table 47: Matrix of Influence vs Interest

Stakeholder Group	Interest in RACP	Influence on Project	Required Engagement Approach
IMCs/WUAs	Very high	High	Continuous engagement; scheme-based decision forums
Irrigators & plot holders	Very high	Medium	Regular meetings, participatory planning
Women groups	Very high	Medium–low	Dedicated consultations; gender-sensitive facilitation
Youth groups	High	Medium–low	Tailored youth dialogues; skill-focused engagement
Traditional leaders	Medium	High	Early involvement; cultural guidance
AGRITEX officers	High	High	Technical coordination and training
ZINWA	High	High	Structured water allocation consultations
District agriculture, irrigation & mechanisation officers	High	High	Joint planning and monitoring
RDCs	Medium	High	Local planning approval and oversight
EMA	Medium	High	Environmental compliance and community training
Contractors	Medium	High	Mandatory briefings, OHS meetings, GRM orientation
NGOs/private sector	Medium–low	Medium	Partnership-based engagement

Scheme-based governance structures (IMCs and plot holders) hold high interest but moderate influence, whereas provincial and district authorities have high influence but moderate direct interest. Thus, stakeholder engagement must bridge these asymmetries to ensure effective participation.

4.4 Vulnerable Groups Assessment

IFAD SECAP 1 and AfDB OS10 require targeted engagement of vulnerable groups to avoid exclusion. Across RACP provinces, vulnerability profiles are consistent and include:

Women-headed households, who frequently lack institutional voice

Youth with limited access to resources or decision-making bodies

Persons with disabilities, facing mobility and inclusion challenges

Elderly irrigators, often unable to operate heavy irrigation equipment

Households affected by chronic illness or HIV/AIDS

Widows with limited labour resources

Vulnerable persons may require:

Adjusted meeting times

Tailored communication methods

Priority participation in training

Dedicated grievance pathways

Non-technical climate risk and water-use explanations

These considerations are integrated into Chapters 5 and 7 of the SEP.

4.5 Stakeholder Validation and Updating

Stakeholder lists will continue to be refined during:

District inception meetings

Scheme-level verification exercises led by IMCs and AGRITEX

Provincial harmonisation meetings

Contractor mobilisation activities

Water permitting discussions with ZINWA

Each scheme will maintain a **Stakeholder Register** (structured as that presented in Table 48), updated quarterly and coordinated by the District SACP/RACP Agricultural Officer, with oversight from the Provincial PMU.

Table 48: Summary Table of Stakeholders Across All RACP Provinces

Level	Stakeholder	Role/Interest
Scheme Level	Irrigators, IMCs, WUAs	Water allocation, scheme governance, operation and maintenance
	Women groups & youth groups	Production, labour, decision-making, livelihood opportunities
	Traditional leaders	Legitimacy, land governance, social cohesion
Ward Level	Village heads, local committees	Mobilisation, conflict management, cultural issues
District Level	AGRITEX, Irrigation, Mechanisation, District SACP Officer	Technical support, monitoring, extension, IPM training
	DDC	Multi-sectoral coordination and oversight
	RDC	Local approval, land use regulation, environmental governance
	EMA & ZINWA	Environmental compliance and water resource management
	District Health Offices	Public health, WASH, construction health oversight
Provincial Level	Provincial AGRITEX, Irrigation, Mechanisation, PDC	Provincial planning, reporting, environmental and social oversight
	Provincial SACP/RACP Coordination Unit	Programme alignment and quality control
National Level	PMU, MLAFWRD	Policy oversight, financial management, donor compliance
External	NGOs, private sector, input suppliers, media	Partnerships, technical support, value chain integration

5. STAKEHOLDER ENGAGEMENT STRATEGIES

Stakeholder engagement under the Resilience Agriculture Cluster Project (RACP) must be continuous, adaptive, inclusive and responsive to evolving scheme-level, district and provincial realities. The strategies in this chapter are designed to ensure that all stakeholders, especially the most vulnerable are informed, consulted, involved in decision-making, and empowered to participate in the monitoring and grievance processes throughout the project lifecycle. These strategies apply uniformly across all five RACP provinces, with flexibility for scheme-level adaptation based on local culture, institutional maturity and community dynamics.

The engagement strategies follow the principles outlined in AfDB OS10 on Stakeholder Engagement and Information Disclosure and IFAD SECAP 1 & 10, ensuring that consultations are meaningful, transparent and accessible, and that feedback is systematically incorporated into project design and implementation.

5.1 Information Dissemination

Information dissemination forms the foundation of effective stakeholder engagement. Communities and institutions must receive accurate, timely and understandable information on project activities, timelines, risks, rights, responsibilities and grievance processes. This is particularly important in irrigation rehabilitation programmes where water availability, construction schedules, land use changes, and pesticide use have direct impacts on livelihoods.

Information must therefore be:

Clear and non-technical, avoiding jargon where possible

Delivered in local languages (Shona or Ndebele and other languages depending on province)

Shared through multiple channels to reach diverse groups

Provided in advance of decisions, construction works or environmental impacts

For RACP, primary information dissemination channels include:

Community meetings facilitated by AGRITEX or IMCs

District-level technical briefings involving MLAFWARD officers and the District SACP Officer

Public notices displayed at ward centres, irrigation scheme entrances and market facilities

Local radio broadcasts for provincial-level announcements

Engagement with local councillors, village heads and traditional leadership structures

WhatsApp groups managed by IMCs or AGRITEX where appropriate

Dissemination through local churches, savings groups, youth clusters and women's associations

Information dissemination must also integrate awareness from the **GRM Plan**, such as where grievances can be submitted, timelines for resolution and **SEA/GBV** referral pathways, as well as guidance from the **Pest Management Plan**, particularly around pesticide risks, safe handling and emergency reporting.

5.2 Stakeholder Consultations

Consultations are the core of engagement, providing platforms for stakeholders to express concerns, propose solutions, understand alternatives and participate meaningfully in project decisions. For irrigation rehabilitation, consultations need to be iterative because design choices, construction methods, water distribution rules and O&M structures require community acceptance to be effective.

Stakeholder consultations under RACP take place at multiple levels:

Scheme-Level Consultations

These consultations are the most important, as they engage the primary beneficiaries, the irrigators, IMCs, women farmers, youth, traders and downstream users. Topics typically include:

Scheme design options and layout

Water abstraction points and pumping capacities

Night storage dam configuration and canal alignments

Catchment restoration priorities

O&M responsibilities

Labour requirements and opportunities

Restrictions during construction

Pesticide management and IPM training

Emergency procedures and safety commitments

These meetings must be facilitated by AGRITEX, district irrigation engineers, IMCs and the District SACP/RACP Agricultural Officer.

District-Level Consultations

District-level consultations bring together technical departments and administrative authorities who ensure compliance and coordinate cross-sectoral actions. These engagements include:

District Development Coordinator (DDC)

RDC planning and environmental officers

AGRITEX district teams

Irrigation and Mechanisation officers

EMA district officers

ZINWA catchment representatives

District health offices and EHTs

Matters discussed at this level often relate to:

Water permitting

Environmental compliance

Contractor monitoring

Land-use and access

Catchment-wide management

Labour standards and SEA/GBV prevention

Provincial-Level Consultations

At the provincial level, the focus shifts towards:

Harmonisation of activities across multiple schemes

Provincial water strategies

Shared catchment concerns

Monitoring and oversight

Provincial reporting to PMU

Integrating RACP activities with other development programmes

Provincial consultations must involve Provincial AGRITEX, Irrigation, Mechanisation, EMA, ZINWA and Provincial Development Coordinator (PDC) representatives.

National-Level Consultations

These consultations are led by the PMU and MLAFWRD through:

Policy engagement

Donor reporting

Safeguards compliance

Consolidation of grievances and lessons learned

Alignment with national climate, water and agricultural strategies

National consultations ensure consistency between provinces and capture cross-cutting lessons.

5.3 Capacity Building and Training

Capacity building is a fundamental engagement strategy because the success of irrigation rehabilitation, IPM adoption, scheme governance and environmental management depends on stakeholders' technical competence and institutional capacity.

Training sessions must be practical, hands-on, and tailored to beneficiary realities, with special attention to women, youth and vulnerable groups.

Training priorities include:

For Communities and IMCs

Roles and responsibilities of IMCs and WUAs

Water scheduling, conflict minimisation and equitable distribution

Basic operation and maintenance of infrastructure

Understanding irrigation layouts and command areas

Safe pesticide handling, storage, application and disposal (PMP requirement)

Emergency procedures and reporting

For AGRITEX and District Technical Staff

Enhanced facilitation skills

Environmental and social risk communication

Monitoring and compliance reporting

Gender-sensitive engagement

Climate-smart agriculture and IPM advisory services

For Contractors

Community entry protocols

Labour rights, worker codes of conduct and SEA/GBV prevention

Occupational health and safety

GRM orientation and grievance escalation

Training content must be updated periodically and delivered collaboratively by AGRITEX, EMA, ZINWA, RDCs and the PMU.

5.4 Collaborative Partnerships

RACP implementation benefits from strategic partnerships that strengthen capacity, extend knowledge networks and enhance sustainability. Partnerships should involve:

NGOs providing community facilitation, gender mainstreaming, youth mobilisation or market access development

Private sector actors offering value-chain linkages, processing opportunities or supply chain investments

Environmental institutions such as EMA and Forestry Commission supporting ecosystem restoration

ZINWA for catchment management planning

Health institutions for pesticide poisoning prevention, WASH, and contractor health oversight

Financial institutions providing microcredit or revolving fund services

Such partnerships deepen community engagement, promote co-ownership of interventions and build long-term resilience.

5.5 Participatory Monitoring and Evaluation

Participatory M&E is essential for ensuring that stakeholders remain part of the oversight, quality assurance and learning cycle. AfDB OS1 and IFAD SECAP promote community involvement in monitoring because it builds trust, enhances compliance, and supports adaptive management.

Participatory monitoring will involve:

Community monitoring committees composed of IMCs, women, youth and vulnerable group representatives

Joint field inspections with AGRITEX, Irrigation, RDC and EMA

Monitoring of water flows, abstraction rates and catchment restoration

Feedback sessions during district technical review meetings

Tracking safe pesticide use practices under the PMP

Review of GRM cases and resolutions during scheme meetings

Community-generated data will support adaptive decision-making in the PMU.

5.6 Grievance Redress Mechanism (GRM) Integration

While full procedural details are addressed in the **standalone GRM Plan**, the SEP emphasises that stakeholder engagement must:

Raise awareness of the GRM

Clarify reporting channels

Promote SEA/GBV-safe reporting

Ensure confidentiality where required

Ensure accessibility to vulnerable groups

Reinforce trust that grievances will be heard and resolved

Engagement activities must dedicate time to explaining:

How to file a complaint?

Who receives the complaint (IMC GRM focal persons, AGRITEX, ward leadership, District GRM Committee)?

Expected timelines

Appeals steps

Special handling of labour disputes

Survivor-centred SEA/GBV mechanisms

Community awareness of the GRM is a mandatory requirement under AfDB OS10 and IFAD SECAP 10.

6. METHODS AND TOOLS FOR ENGAGEMENT

Stakeholder engagement within the RACP requires a deliberate, context-driven approach built upon Zimbabwe's established rural communication traditions, extension systems, customary leadership structures, and local governance arrangements. Because RACP is implemented across five provinces, each with unique social, cultural and agro-ecological conditions whilst having shared similarities, engagement tools must be adaptable, sensitive to community rhythms, and grounded in the day-to-day realities of smallholder farmers. At the same time, these tools must meet the rigorous expectations of the AfDB and the IFAD, which oversee project implementation through periodic missions, reviews and supervision visits.

The engagement methods described below reflect a synthesis of Zimbabwe's practical knowledge systems and the procedural expectations of international safeguards. The objective is to ensure that information flows effectively, decisions are participatory, concerns are heard and addressed, and technical content is communicated in a way that is accessible to the very farmers and community members whose livelihoods depend upon irrigation rehabilitation and agricultural resilience.

6.1 Foundations of the Engagement Approach

Engagement under RACP is anchored in five interlinked principles:

Accessibility

Engagement must reach irrigators, non-plot farmers, downstream users, women, youth and vulnerable groups regardless of literacy level, gender, mobility, or socio-economic constraints. This often means holding meetings in communal spaces, using visual aids, translating technical concepts, and scheduling discussions at times that do not clash with farming or caregiving responsibilities.

Respect for local governance structures

Traditional leaders, IMCs, WUAs, councillors and AGRITEX extension officers are central figures in rural governance. Engagement methods must operate through, not around, these structures. For example, a contractor cannot enter a community without first reporting to the village head or traditional leadership, even if the formal entry process is coordinated through the PMU.

Iterative Consultations

Engagement is not a single event. It must follow the rhythm of the project: from scoping to design, from construction to operation, and into the long-term sustainability phase. Iteration ensures that new concerns, seasonal changes, and shifting priorities are captured and addressed.

Two-way Dialogue

Engagement must allow communities to shape project outcomes, not merely receive information. Dialogue helps uncover local knowledge on water flows, soil behaviour, cultural considerations, and social vulnerabilities that no technical report alone can capture.

Oversight and Accountability

AfDB and IFAD provide an additional layer of oversight, often reviewing engagement processes during missions, verifying documentation, interacting directly with communities, and ensuring that local voices are reflected in project decisions and corrective actions.

These foundational principles shape every method and tool used under RACP.

6.2 Scheme-Level Engagement Tools: The Heart of RACP Communication

Most meaningful engagement happens at scheme level because that is where irrigation infrastructure exists, where fields are worked, where water is distributed and where community relationships shape governance outcomes. For this reason, scheme-level methods are the most nuanced and human-centred.

6.2.1 Community Meetings (Dare / Public Assemblies)

These meetings are held at the scheme centre, under a tree, by the canal, or within a school or church depending on local norms. They are essential for:

Sharing project updates

Introducing contractors

Reviewing ESMP findings

Discussing water distribution concerns

Presenting designs and layout maps

Introducing labour schedules and OHS expectations

Communicating grievance channels

Because such meetings are modelled around long-standing community communication traditions, community members often feel more comfortable expressing concerns.

During AfDB and IFAD supervision missions, community assemblies are a primary interface for donors to validate whether engagement has been meaningful.

6.2.2 IMC and WUA Technical Sessions

IMCs and WUAs are the custodians of scheme governance. They are responsible for:

Water scheduling

Enforcement of rules

Conflict management

Maintenance planning

Therefore, IMC technical sessions are more detailed, often involving:

Review of pump efficiency

Canal alignment considerations

Water duty calculations

Cross-checking O&M responsibilities

Recording grievances received at IMC level

These sessions often include AGRITEX officers, the District Irrigation Officer, and occasionally EMA or ZINWA representatives for clarifications.

Minutes from these sessions are frequently reviewed during donor missions as part of evidence of governance functionality.

6.2.3 Gender- and Youth-Specific Focus Group Discussions (FGD)

FGDs are crucial for understanding differentiated experiences and concerns:

Women's FGDs explore:

Access challenges (distance to plots, heavy equipment)

Household workloads that influence meeting attendance

Exposure to pesticides during spraying

Safety concerns when working early or late

Representation gaps in IMCs

Youth FGDs explore:

Desire for training in irrigation technology

Inclusion in labour opportunities

Barriers to leadership roles

Interest in climate-smart innovations and value chains

FGDs often uncover deeper concerns that may not emerge in large meetings. IFAD in particular places strong emphasis on these discussions during missions.

6.2.4 Participatory Field Walks and Joint Inspections

These practical tools involve walking with community members through:

Dam embankments

Canals and drainages

Pump houses

Eroded gullies

Areas needing catchment protection

This method:

Builds shared understanding of technical issues

Helps demystify engineering concepts

Allows farmers to show real impacts or risks

Prevents misunderstandings about design decisions

AfDB engineering teams often participate in joint inspections during field missions, validating the physical realities of scheme conditions.

6.2.5 Demonstration Plots and Farmer Field Schools

Used extensively by AGRITEX to demonstrate best practices, these tools:

Demonstrate safe pesticide use (aligned to the PMP)

Showcase improved seed varieties

Demonstrate mulching, drip systems or moisture conservation

Support climate-smart agriculture awareness

Encourage peer-to-peer learning

Farmer Field Schools (FFS) create a space where learning is participatory, experiential, and farmer-led.

6.3 District-Level Engagement Tools: Bridging Technical Oversight and Local Realities

At district level, engagement tools focus on coordination, compliance, and technical integrity.

6.3.1 District Technical Working Groups (DTWGs)

These groups meet monthly or bi-monthly, involving:

AGRITEX district leadership

District Irrigation and Mechanisation Officers

EMA district officers

RDC planning officers

ZINWA sub-catchment representatives

District Health Office

District SACP/RACP Officer

Tools used during DTWGs include:

ESMP progress matrices

Safeguards monitoring templates

Water abstraction analysis reports

Contractor compliance dashboards

Grievance summaries compiled through the GRM

DTWGs are also the venue where AfDB and IFAD mission teams often sit with stakeholders to review technical and safeguards performance.

6.3.2 Written Circulars, Technical Memoranda and Formal Notices

Formal communication tools are vital for:

Approving or modifying abstraction rights

Notifying communities of environmental regulations

Enforcing labour standards

Communicating contractor obligations

Documenting decisions taken in district meetings

These tools reinforce institutional accountability and are part of the documentary evidence reviewed during donor missions.

6.3.3 District Multi-Stakeholder Dialogues

These sessions bring together:

Development partners

NGOs

Farmer unions

Private sector input dealers

Off-takers

Community representatives

They provide a space for discussing cross-cutting issues such as:

Market access

Value chain opportunities

Catchment-wide degradation

Coordination of donor efforts

These dialogues reflect IFAD's emphasis on inclusive rural transformation.

6.4 Provincial-Level Engagement Tools: Harmonising Scheme Realities with Provincial Strategies

6.4.1 Provincial Planning and Review Meetings

Chaired by the Provincial Development Coordinator, these meetings use tools like:

Provincial performance dashboards

Aggregated grievance data

Irrigation rehabilitation progress reports

Catchment restoration maps

Financial and procurement status updates

Provincial meetings allow cross-scheme comparisons, identification of bottlenecks, and harmonisation of environmental and social priorities.

6.4.2 Interdepartmental Technical Briefings

These briefings convene:

Provincial AGRITEX

Provincial Irrigation and Mechanisation

EMA provincial staff

ZINWA

Provincial RACP/SACP coordinators

Tools include:

Hydrological and meteorological summaries

Maps showing dam capacities and canal networks

Land degradation maps

O&M capacity assessments

These briefings are important touchpoints before donor supervision missions.

6.5 National-Level Engagement Tools: Strategic Direction, Compliance and Oversight

6.5.1 National PMU Workshops and Safeguards Clinics

Workshops convened by MLAFWRD and the national PMU focus on:

Safeguards training (AfDB ISS and IFAD SECAP)

Consolidated provincial reporting

GRM effectiveness reviews

Lessons learned across provinces

National climate and water policy alignment

Tools include:

Safeguards manuals

Consolidated monitoring dashboards

Stakeholder engagement logs

Corrective action trackers

6.5.2 Donor Supervision Missions and Backstopping Visits

IFAD and AfDB send multidisciplinary teams to:

Verify stakeholder engagement processes

Meet communities and IMCs

Assess GRM functioning

Review ESMP implementation

Validate environmental and social reporting

Identify emerging risks

These missions use:

Mission aide-mémoire

Field notes

Community feedback records

Photographic evidence

Discussions with district and provincial teams

Their involvement strengthens transparency, builds trust among communities, and provides external accountability.

6.6 Tools for Information Access and Public Communication

Engagement relies on diverse tools such as:

Printed flyers and leaflets in local languages

Visual posters on pesticide safety, water rules, labour rights

Scheme notice boards

SMS alerts and WhatsApp groups where network allows

Community radio announcements

Local church and school noticeboards

Summary brochures of GRM pathways

These tools reinforce verbal communication and provide communities with lasting references.

6.7 Tools for Documentation, Monitoring and Evidence-Based Engagement

Robust documentation is critical for accountability and donor compliance. Tools include:

Attendance registers for all meetings

Minutes with clear action points

Signed resolutions from IMCs and District TWGs

Grievance logs and resolution certificates from the GRM

Pictorial records of meetings, inspections and demonstrations

Maps and diagrams annotated during community sessions

Periodic reporting templates used by AGRITEX and PMU

These tools become the documentary backbone of supervision missions by AfDB and IFAD.

6.8 Tools for Engaging Vulnerable Groups

Specific tools ensure that vulnerable groups are fully included:

Home visits for the elderly or disabled

Small cluster discussions for widows and child-headed households

Women-led facilitation by female AGRITEX officers

Youth-friendly formats such as practical demonstrations, competitions or role-based trainings

Simplified visual materials for low-literacy groups

Confidential feedback boxes linked to the GRM

These tools uphold the principle that **no stakeholder is too marginalised, too busy, too shy or too remote to participate meaningfully in RACP.**

7. TIMELINE AND FREQUENCY OF ENGAGEMENT

Stakeholder engagement within the RACP follows the natural rhythm of irrigation development, agricultural seasons, community availability and the project's safeguards obligations. Engagement does not happen once and it does not follow a rigid schedule. Instead, it is woven into the day to day functioning of irrigation schemes and provincial agricultural governance. This means that engagement moments must be planned in advance, discussed openly during coordination meetings and adjusted whenever project dynamics shift.

The purpose of setting a clear timeline is to ensure that project information moves from national level to scheme level in a coordinated manner, that communities receive updates before change occurs on the ground and that each phase of implementation carries opportunities for meaningful dialogue between farmers, extension services, local institutions and the project implementers.

Stakeholder engagement also follows a layered rhythm which reflects the structure of rural governance. Scheme level farmers and IMCs require frequent and practical engagements because their lives are directly affected by construction, water availability, crop cycles and market opportunities. District level stakeholders guide the technical and administrative oversight therefore their engagement occurs regularly but with more structured intervals. Provincial and national engagements take a more strategic focus and therefore follow quarterly and annual cycles.

AfDB and IFAD do not participate in everyday meetings but they do join through supervision missions and backstopping visits at specific points of the year. These interactions serve to verify that engagement is functioning and that communities are genuinely taking part in project decisions. Their involvement creates an accountability loop from village level to national decision making.

The following timeline outlines how the engagement process unfolds across the project cycle.

7.1 Engagement During Planning and Design

The planning and design stage is one of the most important periods for community participation because design choices on canals, pump sizes, storage dams, command areas and road alignments have long term implications for scheme performance.

Engagement activities during this phase therefore include:

Introductory consultations at scheme level to explain the project, expected benefits, possible disruptions and the responsibilities of different actors

Detailed design discussions where IMCs, women and youth groups and vulnerable households provide input on scheme layout and identify areas that require protection

Catchment and water availability consultations involving ZINWA, EMA and AGRITEX to ensure that design proposals align with water permits and environmental obligations

Ward meetings led by traditional leadership and AGRITEX to verify stakeholder lists and ensure that no group is excluded

District technical meetings where Irrigation, Mechanisation, EMA, RDC and AGRITEX teams review engineering proposals

Initial grievance awareness sessions led by IMC GRM focal persons to familiarise communities with reporting channels

Farmer consultations on pest management expectations which directly feed into the PMP or IPMP training calendar

These engagements must occur **before any contractor is mobilised** and should be spaced over two to three months to allow communities to process information, seek clarification and offer feedback.

7.2 Engagement During Construction

Construction introduces noise, movement of heavy equipment, possible land disturbance and temporary interruptions to irrigation activities. For this reason, construction demands more frequent and structured engagement moments.

Key engagement events during construction include:

Weekly or fortnightly scheme meetings facilitated by AGRITEX and the IMC to update farmers on progress, expected disruptions and safety precautions

Monthly District Technical Working Group sessions where construction progress, safeguards compliance and grievances are reviewed by technical departments

Contractor community entry and regular interface meetings, particularly those addressing labour practices, safety rules and work schedules

Safety briefings delivered by district officers on avoiding hazards near excavated areas, trenches, pumping units or transformer zones

Consultation moments with women and vulnerable groups to identify any safety concerns or barriers created by construction movement

District health and EMA joint outreach sessions whenever land clearing, waste disposal or construction emissions pose public health concerns

Activation of the GRM response mechanism to deal with construction related complaints in real time

Construction related engagement is most effective when information is provided before work begins and when IMCs receive weekly updates that they can pass on to plot holders.

7.3 Engagement During Operation and Handover

Once rehabilitation works are completed, engagement shifts toward preparing farmers and local institutions for operation and maintenance.

Engagement activities at this stage include:

Handover meetings where contractors, district engineers and IMCs review the infrastructure and confirm readiness for use

O and M training sessions for IMCs, WUAs and farmers covering water scheduling, pump operation, routine maintenance and emergency response

PMP or IPMP refresher trainings focused on safe pesticide handling, chemical storage and monitoring of agrochemical risks during production

Monthly scheme governance meetings chaired by IMCs to address water distribution, fee collection, conflict management and maintenance planning

Community feedback meetings facilitated by AGRITEX or the District SACP Officer to identify lessons learned and adjust practices

Ongoing grievance handling sessions where unresolved issues are brought forward to district and provincial committees

Provincial review sessions to assess performance across schemes, examine cumulative impacts and refine support interventions

During operation, the frequency of engagement gradually decreases but continues to be consistent because irrigation requires continual management, coordination and problem solving.

7.4 Engagement During Monitoring, Evaluation and Learning

Monitoring and evaluation rely on periodic engagement moments that allow stakeholders to measure progress, understand challenges and refine approaches.

Engagements during this phase include:

Quarterly district reviews involving AGRITEX, Irrigation, EMA, RDC, ZINWA and scheme representatives

Annual provincial performance reviews where issues such as catchment health, water abstraction patterns, scheme governance, gender inclusion and youth participation are examined

Participatory monitoring visits where scheme committees walk the infrastructure with AGRITEX and district technical staff to identify emerging issues

Annual missions by AfDB and IFAD which include consultations with IMCs, community leadership, district officers and provincial staff

Stakeholder validation workshops at 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 49**.

Table 49: Engagement frequency

Project Stage	Engagement Frequency	Primary Actors Involved
Planning and design	Weekly to monthly	IMCs, AGRITEX, Irrigation, ZINWA, EMA, RDC, PDC, PMU
Construction	Weekly for scheme meetings, monthly for district reviews	IMCs, contractors, AGRITEX, EMA, Irrigation, Mechanisation, DDC
Early operation	Bi weekly scheme meetings, quarterly district and provincial reviews	IMCs, AGRITEX, District agriculture teams, provincial departments
Full operation	Monthly scheme meetings, quarterly district oversight, annual provincial and national reviews	IMCs, AGRITEX, district technical departments, PMU
Monitoring and evaluation	Quarterly and annual	PMU, provincial officers, district teams, AfDB and IFAD missions

8. MONITORING AND EVALUATION

Monitoring and evaluation within the Stakeholder Engagement Plan is not an administrative exercise. It is a practical and continuous process that helps ensure that communities are informed, that meaningful participation is taking place, and that concerns raised at scheme, district, provincial and national levels are translated into corrective actions. In a complex project such as RACP, which operates across five provinces and within a mixture of irrigation schemes at different levels of readiness, the M and E system must remain responsive, community centred and firmly anchored in the existing agricultural extension and environmental governance structures.

This chapter outlines how monitoring will occur, who is responsible, how information will be collected and how learnings will feed into improvements in the engagement process. It also clarifies the role of AfDB and IFAD in providing external oversight and validation through supervision missions and backstopping visits.

8.1 Purpose of Monitoring and Evaluation in the SEP

Monitoring and evaluation serve several important purposes.

First, it helps verify that planned engagement activities actually occur and that they are not rushed, skipped or replaced with informal communication that leaves out key groups.

Second, it ensures that the quality of engagement aligns with the standards expected under AfDB ISS OS10 and IFAD SECAP 10.

Third, it creates a transparent system where communities can see how their feedback is being used to adjust project decisions.

Finally, it ensures that district and provincial authorities remain accountable for the engagement processes they coordinate.

Effective M and E therefore strengthens trust, reduces conflict, improves ownership and enhances the long term sustainability of irrigation rehabilitation.

8.2 Key Indicators for Monitoring Stakeholder Engagement

Indicators must be practical, easy to track and meaningful for all stakeholders involved. The monitoring system focuses on four broad categories.

8.2.1 Participation Indicators

These indicators track who attends meetings and who is left out. They include:

Number of community meetings held at scheme level

Attendance rates disaggregated by women, youth and vulnerable persons

Number of IMC meetings with written minutes and action points

Number of district technical meetings and participation of AGRITEX, Irrigation, EMA, RDC and ZINWA

Number of FGDs held with women and youth

Number of engagement sessions held during construction and operation

These indicators help determine whether engagement is inclusive and consistent.

8.2.2 Information Flow Indicators

These track whether information reaches communities in time and in a clear manner. They include:

Number of information materials distributed to farmers

Frequency of updates shared through IMCs and AGRITEX

Time taken to communicate changes in construction schedules

Number of notices displayed on scheme notice boards

Evidence that information was provided before decisions were made

These indicators help assess transparency and the reliability of communication channels.

8.2.3 Grievance Management Indicators

These indicators track functionality of the GRM. They include:

Number of grievances received at scheme, district and provincial level

Type of grievances raised and how quickly they were acknowledged

Proportion of grievances resolved within agreed timelines

Number of referrals made for sensitive cases, such as SEA or GBV complaints

Whether grievance outcomes were communicated back to communities

Quality of grievance documentation

Trends showing recurring issues that require systemic interventions

Grievance indicators show whether communities trust the process and whether the project is responsive.

8.2.4 Behavioural and Performance Indicators

Monitoring must also look at whether engagement changes behaviour. These indicators include:

Increase in women and youth participation in IMCs and scheme activities

Improved adherence to safe pesticide use through PMP training

Reduced conflict related to water distribution

Improved compliance with environmental requirements

Improved coordination between district technical departments

Evidence of scheme committees taking initiative on O and M

These indicators show whether engagement activities are shaping decisions and practices.

8.3 Monitoring Responsibilities Across Stakeholder Levels

Monitoring is not the job of a single institution. It is shared across different levels of government and project management.

8.3.1 Scheme Level Monitoring

IMCs, AGRITEX officers and community focal persons are responsible for:

Keeping attendance registers

Recording discussions and action points

Submitting monthly reports to district level

Tracking grievances and providing updates

Conducting joint scheme inspections together with district officers

Ensuring vulnerable groups are included in meetings

Scheme level monitoring provides the most current picture of engagement.

8.3.2 District Level Monitoring

District AGRITEX, Irrigation, Mechanisation, EMA, RDC and ZINWA officers are responsible for:

Compiling scheme level reports

Reviewing quality of engagement

Checking whether construction related engagement is occurring as planned

Monitoring grievance resolution and response times

Reporting risks to provincial and national levels

Conducting quarterly district reviews with scheme representatives

District officers ensure that engagement is technically accurate and administratively sound.

8.3.3 Provincial Level Monitoring

Provincial departments perform oversight functions and help identify emerging patterns across multiple districts. Their role includes:

Reviewing aggregated monitoring data

Verifying whether all districts are following SEP requirements

Conducting provincial performance reviews

Supporting districts where engagement has weakened

Preparing provincial inputs for national and donor reporting

Provincial oversight ensures uniformity in M and E across all five provinces.

8.3.4 National Level Monitoring

The PMU carries the final responsibility for:

Consolidating all engagement data from provinces

Producing quarterly and annual engagement reports

Ensuring compliance with AfDB and IFAD safeguards

Updating the SEP where engagement patterns show the need for improvement

Sharing feedback to provinces based on donor mission findings

National monitoring confirms whether engagement meets the expectations of financiers and government.

8.3.5 Donor Oversight

AfDB and IFAD conduct supervision missions at least once a year and sometimes twice depending on project dynamics. During these missions they:

Review monitoring reports and grievance logs

Visit selected irrigation schemes

Hold direct consultations with IMCs and farmers

Validate inclusion of women, youth and vulnerable groups

Verify compliance with OS10 and SECAP 10

Identify gaps that require immediate or long term corrective measures

Their oversight strengthens accountability and provides independent assessment of engagement quality.

8.4 Tools for Monitoring Engagement

Monitoring tools must be simple but capable of capturing information accurately. They include:

Attendance sheets with gender and age categories

IMC meeting minutes

District technical meeting minutes

Grievance logbooks and case files

Photographs of community meetings, training sessions and inspections

Monitoring checklists for district and provincial officers

Safeguards compliance templates used by PMU

Engagement summary forms after each major activity

Documentation of FGD outcomes

All tools must be kept at scheme, district and provincial offices for verification during provincial oversight or donor missions.

8.5 Reporting Arrangements

Reporting in the SEP follows a chain that mirrors the structure of agricultural extension and local governance.

Scheme Level Reporting

IMCs submit:

Monthly engagement summaries

Attendance registers

Community concerns

Notes on IPM and pesticide related issues

Updates on water distribution or maintenance discussions

These reports go to AGRITEX and the District SACP or RACP Officer.

District Level Reporting

District teams combine information from IMCs and produce:

Monthly district summaries

Quarterly engagement reports

Updated grievance dashboards

District level recommendations for technical improvements

These reports are sent to provincial departments and the PMU.

Provincial Reporting

Provincial coordination units prepare:

Quarterly provincial reports

Annual provincial stakeholder engagement reviews

Provincial summaries of grievance trends

Recommendations for national level action

These reports help the PMU understand cross regional patterns.

National Reporting

The PMU produces:

Consolidated quarterly and annual SEP implementation reports

Safeguards reports for AfDB and IFAD

Inputs for national agricultural and climate resilience planning

SEP updates based on performance results

These reports inform donors of engagement progress and areas needing support.

8.6 Learning and Adaptive Management

Monitoring alone does not improve engagement. What improves it is the ability to review evidence, discuss lessons with communities and technical departments, and then adjust approaches.

Learning moments occur through:

Quarterly district reviews

Annual provincial reviews

Mid year and annual national reflection workshops

AfDB and IFAD supervision feedback sessions

Community assessment meetings following major construction phases

Sessions with women, youth and vulnerable groups to understand what works and what does not

Cross district learning exchanges where IMCs share experiences

Adaptive management ensures that the SEP remains alive, relevant and grounded in the lived realities of farmers and local institutions.

9. INFORMATION DISCLOSURE

Information disclosure within the RACP is not simply about making documents available. It is a deliberate and structured process that ensures communities, institutions and stakeholders at every level fully understand what the project is doing, why it is doing it, how it affects them and what rights and responsibilities they hold throughout implementation. Disclosure is therefore both a technical requirement and a relationship building process. When information flows clearly and consistently, conflict decreases, cooperation increases and communities feel respected and involved.

This chapter describes how information will be disclosed, to whom, at what stages and using which channels. It also clarifies the responsibilities at scheme, district, provincial and national levels, ensuring that disclosure is not left to chance but is integrated into normal project operations. The approach balances formal documentation with locally appropriate communication methods that respect language, culture and day to day realities.

9.1 Objectives of Information Disclosure

Effective disclosure seeks to:

Ensure that all stakeholders understand project goals, timelines, risks, benefits and responsibilities in a manner that is accessible and practical

Promote transparency, accountability and trust between communities, technical departments, contractors, PMU and financiers

Support informed participation in decision making during planning, construction and operation

Reduce misinformation and speculation by providing clear and timely updates

Strengthen compliance with AfDB ISS OS1 and OS10 and IFAD SECAP 1 and 2 guidelines

Ensure that farmers and vulnerable people can exercise their rights including the right to raise grievances through the GRM

Provide AfDB and IFAD with evidence that disclosure has reached the intended audience

Disclosure is therefore the backbone of genuine participation.

9.2 What Information Will Be Disclosed

Information that will be disclosed throughout the project includes but is not limited to:

The nature of the RACP, including objectives, financing, target provinces and broad implementation approach

Detailed scheme level rehabilitation plans, including proposed engineering works, changes in layout, pumping configurations and construction schedules

The Environmental and Social Management Plan and relevant safeguards information, clearly explained in non technical language

The Pest Management Plan and guidance on safe pesticide use

The GRM including entry points, responsible persons, timelines for resolution and escalation pathways

Contractor obligations including safety rules, labour requirements, worksite restrictions and community protection measures

Water allocation arrangements agreed with ZINWA and implications for farmers

Roles and responsibilities of IMCs, AGRITEX, district and provincial officers

Any issues raised during consultations and the responses provided

Updates on progress, delays, risks or changes to infrastructure designs

Findings from district and provincial reviews that are relevant to scheme performance

The core intention is to ensure that every farmer, regardless of literacy level or social position, has access to understandable and timely information.

9.3 When Information Will Be Disclosed

Disclosure must follow the project cycle so that information is provided before key decisions, before works begin and before risks materialise. The timing of disclosure is therefore anchored to three major phases.

9.3.1 Planning and Design Stage

During this stage, disclosure focuses on:

Introducing the project to the community

Explaining expected benefits and possible disruptions

Sharing preliminary engineering proposals

Presenting ESMP findings and water availability assessments

Confirming stakeholder lists and mapping vulnerable groups

Briefing communities on the GRM and the PMP

Disclosure during this stage must occur **before any contractor mobilisation**. This ensures informed consent and meaningful participation.

9.3.2 Construction Stage

During construction, disclosure becomes more frequent and detailed. It includes:

Weekly or fortnightly updates through IMC and AGRITEX channels

Notices on disruptions to water access or movement

Emergency updates when unexpected issues arise on site

Safety instructions and access restrictions

Updates on grievances submitted and actions taken

Clarification of contractor obligations especially when labour or safety concerns are raised

Disclosure must be immediate when risks to safety or livelihoods become evident.

9.3.3 Operation Stage

Once the scheme becomes operational, disclosure shifts towards:

O and M rules

Water schedules

Fee structures

Conflict resolution procedures

Updates from PMP training and monitoring

Annual reviews of scheme performance

Adjustments to rules or seasonal water allocation arrangements

Continual disclosure keeps communities informed long after construction has ended and supports long term sustainability.

9.4 How Information Will Be Disclosed

The method of disclosure must match the realities of rural communication. Communities rely on a mix of oral communication, written notices, traditional channels and radio. The approach uses multiple channels so that every person has a reasonable chance of receiving the information.

9.4.1 Community Meetings

These remain the primary form of disclosure. Information presented verbally allows farmers to ask questions and receive explanations in real time. Meetings may be facilitated by AGRITEX, IMCs or district officers depending on the topic.

9.4.2 Printed Materials

These include brochures, posters, leaflets and notices. They are useful for:

Displaying key safety instructions

Summarising project components

Showing GRM contact details

Explaining pesticide safety

Informing farmers of meeting dates

Printed materials must be displayed at scheme entrances, schools, clinics, ward centres and markets.

9.4.3 Notice Boards

Every scheme will have a central notice board managed by the IMC. This board will display:

Construction schedules

Meeting announcements

Water distribution rules

GRM information

Public health notices

Notice boards provide a permanent reference point.

9.4.4 Radio Announcements

Where needed, provincial and district offices may use community radio stations to:

Announce major milestones

Inform farmers of public consultations

Share updates on construction progress

Radio is especially useful in remote districts where network coverage is limited.

9.4.5 Digital Platforms

In areas with reliable network access, WhatsApp groups moderated by IMCs or AGRITEX officers will be used for:

Sharing quick updates

Circulating pictures of ongoing works

Notifying community members of emergencies

Disseminating meeting reminders

Digital tools must complement rather than replace face to face disclosure.

9.4.6 Documentation and Public Access

PMU will maintain a repository of all safeguards documents including SEP, ESMP, PMP and GRM. These documents will be shared with:

Provincial offices

District authorities

IMCs for local reference

AfDB and IFAD also host these documents on their public websites as part of their disclosure policy.

9.5 Disclosure Responsibilities

Disclosure responsibilities are clearly allocated to ensure consistency.

IMCs are responsible for:

Posting notices

Informing plot holders of meetings

Sharing construction updates

Relaying farmers' questions to technical teams

AGRITEX plays a central role in:

Facilitating community meetings

Translating technical information into farmer friendly language

Coordinating demonstration sessions and training

Ensuring women and youth understand O and M rules

District Technical Departments, EMA, ZINWA and RDC offices are responsible for:

Reviewing information before it is disclosed

Providing clarifications on technical or regulatory issues

Ensuring that public information reflects accurate engineering and environmental data

Provincial Coordination Units ensure that disclosure practices are consistent across districts and that:

Districts report information dissemination activities

Emerging issues are elevated to national level

Provincial updates are shared during quarterly reviews

PMU ensures that:

National level information is disclosed properly

Key documents are shared publicly

All provinces have access to updated project materials

Lessons from donor missions feed back into disclosure improvements

AfDB and IFAD - The financiers do not manage day to day disclosure but:

Verify that information has been disclosed

Cross check community awareness during missions

Request improvement when disclosure is inadequate

Their oversight ensures that disclosure remains transparent and community oriented.

9.6 Ensuring Disclosure Reaches Vulnerable Groups

Special measures must be taken to ensure that detailed disclosure reaches women, youth, elderly persons, disabled persons and other vulnerable groups. This includes:

Holding dedicated briefings for women and youth

Using smaller group sessions rather than relying only on large public meetings

Engaging female AGRITEX officers or social workers where possible

Conducting household visits for elderly or mobility challenged individuals

Using oral communication methods for low literacy community members

Disclosure that excludes vulnerable groups undermines participation and violates safeguards obligations.

9.7 Feedback After Disclosure

Disclosure does not end when information is shared. It continues through:

Clarification sessions

Follow up meetings

Integration of feedback into designs or workplans

Adjusting information materials based on farmer understanding

Updating communities on how their feedback influenced decisions

Feedback loops give legitimacy to the engagement process and reduce distrust.

10. RESOURCES AND INSTITUTIONAL ARRANGEMENTS

Successful implementation of the Stakeholder Engagement Plan depends on clear institutional roles, consistent coordination and adequate resources that allow engagement to occur in a meaningful and continuous manner. Stakeholder engagement requires time, travel, facilitation skills, documentation tools, training materials and administrative support. These elements must be deliberately planned for because engagement cannot be left to goodwill or assumed to happen on the margins of other project activities.

This chapter outlines the institutional architecture that will support SEP implementation across scheme, district, provincial and national levels and identifies the human, financial and material resources required to sustain an effective engagement system throughout the project lifecycle. The

arrangements described below reflect Zimbabwe's long standing agricultural extension and governance structures while also meeting the compliance expectations of AfDB and IFAD.

10.1 Institutional Structure for SEP Implementation

The SEP is implemented through a four level structure that mirrors the normal functioning of agricultural and local governance systems in Zimbabwe. Each level has distinct responsibilities and each plays a critical role in ensuring that stakeholder engagement is timely, responsive and inclusive.

10.1.1 Scheme Level Institutions

Scheme level institutions form the foundation of the SEP because this is where irrigation activities occur and where communities interact most frequently with the project. Key institutions include:

Irrigation Management Committees

IMCs are responsible for organising meetings, updating farmers, managing scheme notice boards, collecting concerns, supporting grievance handling and coordinating with AGRITEX and district officers. IMCs are the first point of contact for any communication between the project and irrigators.

Women's Groups, Youth Groups and Vulnerable Household Representatives

These groups ensure that engagement captures the needs of individuals who may otherwise be overshadowed in mixed meetings.

AGRITEX Ward Officers

Ward based AGRITEX officers translate technical information into farmer friendly guidance, mobilise communities and help document meetings. They support the IMC in day to day communication and ensure that engagement is aligned with agricultural calendars.

10.1.2 District Level Institutions

District structures coordinate technical verification, safeguards oversight and administrative responsibilities. The district is the operational hub that connects scheme realities with provincial and national decision making. Key institutions include:

District AGRITEX Office

Responsible for consolidating scheme level engagement information, facilitating training, supporting contractors with community entry and ensuring that engagement quality meets expected standards.

District Irrigation and Mechanisation Departments

These departments play a technical advisory role, ensuring that information shared with communities is accurate and that design changes or operational considerations are properly communicated.

Environmental Management Agency District Office

EMA ensures that communities understand environmental requirements and that engagement covers issues such as catchment protection, pesticide risks and waste management.

ZINWA Sub Catchment Council

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

Rural District Council

RDC ensures alignment with local plans, permits and by laws. They support disclosure of planning and land use matters that affect irrigation schemes.

District Development Coordinator

The DDC provides administrative authority and convenes district level stakeholder platforms where procedural and accountability issues are discussed.

10.1.3 Provincial Level Institutions

The provincial tier provides strategic oversight, ensures cross district consistency and supports complex engagement processes involving multiple irrigation schemes. Key structures include:

Provincial AGRITEX Directorate

Coordinates technical messaging and harmonises engagement planning across districts.

Provincial Irrigation and Mechanisation Departments

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

EMA and ZINWA Provincial Offices

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

Provincial Development Coordinator's Office

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

Provincial RACP or SACP Coordination Unit

This unit ensures that stakeholder engagement, grievance management and safeguards implementation are integrated into annual workplans and reports.

10.1.4 National Level Institutions

The national level provides policy direction, coordination across provinces and compliance oversight. Key institutions include:

Project Management Unit

The PMU is responsible for overall coordination of the SEP. It ensures that provinces receive guidance, resources and templates for engagement. The PMU consolidates reports from provinces, communicates with AfDB and IFAD and ensures that engagement standards are met.

Ministry of Lands, Agriculture, Fisheries, Water and Rural Development

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

AfDB and IFAD

The financing partners do not lead the engagement process but provide oversight through supervision missions, document reviews and direct consultations with communities and local authorities. Their involvement strengthens accountability and ensures that the SEP reflects international best practice.

10.2 SEP Human Resources Requirements

Effective implementation of the SEP requires a dedicated and coordinated set of personnel across all four tiers of the institutional structure. These include:

IMC chairpersons, secretaries, treasurers and committee members

AGRITEX extension officers at ward, district and provincial levels

Safeguards specialists within the PMU

District officers responsible for irrigation, mechanisation, RDC planning and EMA

Water management officers from ZINWA

Social workers or gender focal persons in districts where these exist

Communication officers in the PMU responsible for document production and public information

Contractors' community liaison personnel

Provincial coordination staff who oversee reporting and scheduling

These individuals require continuous support in the form of training, mobility resources and access to information so that engagement occurs without interruption.

10.3 Financial Resources for SEP Implementation

Stakeholder engagement requires a dedicated budget which must be integrated into the annual workplans of the PMU, districts and provinces. Financial resources are required for:

Transport for AGRITEX, district officers and provincial supervisors

Production of printed materials including brochures, posters and notices

Travel and subsistence for scheme level meetings

Facilitation costs for FGDs with women, youth and vulnerable groups

Organisation of district or provincial review meetings

Training materials for IPM, O and M and safeguards

Fuel for joint monitoring visits

Data bundles or communication equipment for digital communication

Allowances for IMC mobilisation activities

Stationery and documentation materials for record keeping

Adequate allocation ensures that engagement does not become irregular or dependent on the goodwill of individuals.

10.4 Material and Logistical Resources

Practical engagement requires simple but essential tools, including:

Notice boards at scheme level

Flip charts, maps and visual aides for explaining engineering designs

Stationery for minute taking, registers and documentation

Bicycles or motorbikes for AGRITEX field mobility where required

Projectors for provincial and national presentations

Smartphones or tablets for documentation and communication

Branded GRM posters showing reporting channels

Printed summaries of scheme level rules and O and M responsibilities

These resources help create a predictable and professional communication system that communities can trust.

10.5 Capacity Building for Institutions Responsible for Engagement

Capacity strengthening is essential for IMCs, extension staff, district officers and provincial teams. Training must cover:

Stakeholder engagement methods

Inclusive facilitation skills

Conflict sensitivity

Gender and youth mainstreaming

Environmental and social safeguards

Requirements of the GRM

Safe pesticide management under the PMP

O and M responsibilities

Record keeping and reporting

This capacity building creates a foundation for consistent and high quality engagement.

10.6 Coordination Arrangements

Coordination ensures that engagement activities are not isolated or contradictory. Coordination mechanisms include:

Monthly IMC meetings supported by AGRITEX

District technical review meetings chaired by the DDC

Quarterly provincial engagement reviews

Bi monthly coordination meetings at national level led by PMU

Joint field inspections involving multiple departments

Information sharing with donors during supervision missions

Clear internal communication pathways between scheme, district, province and national teams

Coordination strengthens the flow of information and ensures that corrective actions are implemented promptly.

10.7 Sustainability of Engagement Structures

Sustainability depends on strengthening the institutions that will continue operating after the project ends. This includes:

Building capacity within IMCs to manage meetings and maintain accurate records

Strengthening AGRITEX as the long term technical support structure

Supporting district and provincial reporting systems so that they can function beyond RACP

Ensuring that the GRM is institutionalised rather than project dependent

Promoting community ownership of disclosure and monitoring tools

Maintaining partnerships with EMA, ZINWA, RDCs and NGOs

Sustained engagement increases the likelihood that irrigation schemes remain functional, conflict free and environmentally sound long after the project has closed.

11. RISK MANAGEMENT FOR SEP IMPLEMENTATION

Effective stakeholder engagement requires more than a plan. It requires proactive management of risks that may interrupt communication, weaken participation, undermine trust or delay project activities. Risk management in the context of the SEP is therefore a continuous process of identifying barriers, anticipating threats and taking early action to prevent engagement failures. These risks reflect the realities of working in rural agricultural settings where climate variability, local politics, social dynamics, logistical constraints and institutional pressures can shift quickly.

This chapter identifies risks that may affect stakeholder engagement across all five provinces and describes measures that will ensure that engagement remains active, transparent and inclusive. The risk management approach follows AfDB ISS OS1 and OS10 and IFAD SECAP 10 expectations, which require Borrowers to anticipate obstacles and establish mitigation measures early.

11.1 Purpose of Risk Management in the SEP

Risk management within the SEP seeks to:

Identify conditions that may prevent effective communication or participation

Ensure that vulnerable groups are not excluded by design or circumstance

Respond to emerging tensions early before they escalate into conflict

Maintain trust between communities and project authorities

Support district and provincial teams with practical measures that keep engagement uninterrupted

Ensure continuity of engagement during construction peaks or unexpected disruptions

Strengthen transparency and accountability which is essential for donor trust

Risk management therefore protects both the integrity of the SEP and the quality of project implementation.

11.2 Key Risks Affecting Stakeholder Engagement

These risks are drawn from RACP field consultations, previous irrigation rehabilitation experiences and the Mash Central ESMP, which reflects patterns across all provinces.

11.2.1 Weak or Overstretched Local Institutions

IMCs, AGRITEX officers, EMA district teams and other frontline institutions may become overloaded due to competing programmes or insufficient staffing. This affects their ability to mobilise communities, document meetings or monitor grievances.

Potential effect:

Reduced quality of engagement, delays in information disclosure and unresolved grievances.

11.2.2 Limited Financial and Mobility Resources

District and provincial officers often face transport shortages and limited operational budgets. This reduces the frequency of scheme visits and weakens oversight.

Potential effect:

Delayed communication, inconsistent follow up and limited monitoring.

11.2.3 Political or Leadership Conflicts

In some schemes, leadership disputes, community politics or differences between traditional and elected authorities may interfere with mobilisation and acceptance of project information.

Potential effect:

Low attendance at meetings, misinformation and community resistance.

11.2.4 Climate Related Disruptions

Floods, storms, drought conditions and seasonal accessibility challenges can interrupt planned engagement activities.

Potential effect:

Delayed meetings, difficulty in reaching remote communities and reduced participation.

11.2.5 Construction Delays and Disruptions

Contractors may fall behind schedule or face logistical challenges. Construction activities may disrupt farming operations which can provoke tension if communication is inadequate.

Potential effect:

Frustration, increased grievances and strained relations between communities and contractors.

11.2.6 Exclusion of Women, Youth and Vulnerable Groups

Without deliberate effort, engagement can become dominated by men or influential individuals. This results in silent exclusion.

Potential effect: Unbalanced participation, failure to identify gender and youth related risks, weakened equity.

11.2.7 Low Literacy Levels and Technical Complexity

Irrigation engineering, safeguards information and water governance concepts are technically demanding. Without simplification, farmers may not fully understand the implications.

Potential effect:

Misunderstanding, misconception and reduced ownership of the project.

11.2.8 Weak Documentation and Reporting

Where minutes are not kept, attendance registers are incomplete or grievance logs are not updated, there is no record of engagement to guide monitoring or donor missions.

Potential effect:

Weak accountability, inability to verify engagement and potential compliance findings.

11.2.9 Poor Handling of Grievances

If grievances are ignored, delayed or poorly documented, community trust is lost and conflict increases.

Potential effect:

Escalation of disputes, disengagement and reputational risk for the project.

11.2.10 Limited Coordination Across Stakeholder Levels

If information is not harmonised between scheme, district, province and national levels, communities may receive inconsistent or conflicting information.

Potential effect:

Confusion and weakening of the engagement system.

11.3 Mitigation Measures for SEP Risks

The following measures help prevent or reduce risks and maintain the integrity of the SEP.

Strengthening Capacity of Scheme Level Structures

Provide refresher training for IMCs on facilitation, record keeping and communication

Support AGRITEX officers with tools for mobilisation including bicycles, airtime or stationery

Encourage rotational leadership or sub committees to reduce work overload

Ensuring Availability of Field Logistics

Allocate specific budgets for district transport and fuel for engagement activities

Promote joint district visits to maximise resources

Encourage use of WhatsApp for quick communication where network allows

Managing Leadership Conflicts Proactively

Engage both traditional and elected leadership early in the project

Maintain neutral facilitation during community meetings

Escalate unresolved tensions to district administrators (DDC)

Use FGDs for sensitive issues that cannot be addressed in public forums

Preparing for Climate Related Disruptions

Develop contingency meeting schedules during rainy seasons

Use cluster based meetings when access to scheme centres is difficult

Facilitate remote communication through AGRITEX where movement is restricted

Improving Communication During Construction

Share weekly updates with IMCs

Adjust schedules based on community needs during planting or harvesting periods

Provide advance notice when construction will affect access to plots

Hold on site safety meetings with farmers

Ensuring Inclusion of Vulnerable Groups

Conduct targeted FGDs for women, youth and vulnerable households

Schedule meetings at times that do not conflict with caregiving or seasonal activities

Use simple language and visual aids in meetings

Assign vulnerability focal persons within IMCs

Simplifying Technical Information

Use diagrams, maps and practical demonstrations

Ask engineers to explain concepts in everyday terms

Translate technical materials into Shona or Ndebele

Strengthening Documentation Systems

Provide templates for meeting minutes, registers and grievance logs

Train IMCs and district officers in documentation techniques

Conduct random provincial audits of engagement documentation

Reinforcing the GRM

Regularly explain the GRM during scheme meetings

Display GRM posters in visible locations

Ensure that feedback on grievances is communicated back to complainants

Escalate sensitive grievances immediately to district or provincial safeguards personnel

Enhancing Coordination Across Levels

Hold monthly coordination meetings across district technical teams

Share engagement calendars between district and provincial offices

Include IMCs in district feedback sessions

Provide consolidated communication from the PMU to avoid contradictory messages

11.4 Continuous Risk Review

Risk management is not a one-time event. It must be updated continuously as the project evolves. District and provincial teams must review risks during their technical meetings and raise new issues to the PMU. AfDB and IFAD missions will also identify emerging risks that require immediate corrective measures.

Continuous review ensures that the risks do not accumulate unnoticed and that engagement remains responsive to community realities.

12. ESTIMATED BUDGET FOR SEP IMPLEMENTATION

Implementing the Stakeholder Engagement Plan requires adequate and predictable financial resources. Engagement cannot be effective if scheme level structures, district technical departments or provincial coordination units lack fuel, transport, materials or facilitation allowances. For this reason, the SEP budget must be integrated into the RACP annual workplans at national, provincial and district levels.

The purpose of this budget is to ensure that the engagement processes described in the earlier chapters are fully supported, that communication with farmers remains active throughout the project and that safeguards responsibilities are not undermined by lack of operational resources. This aligns with AfDB ISS OS1 and OS10 and IFAD SECAP 10, both of which require Borrowers to resource engagement adequately.

The budget categories below cover the five RACP provinces and reflect typical Zimbabwean field conditions where travel distances are long, fuel costs are significant and facilitation for meetings must comply with standard subsistence allowances.

12.1 Budget Principles

The budget is based on the following principles:

Inclusivity

Engagement must reach all groups including women, youth and vulnerable persons. Budget lines therefore support FGDs, targeted sessions and accessibility measures.

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.

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.

Flexibility

Provinces differ in geography and access. The budget allows for adjustments depending on travel distances, number of schemes and district workload.

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 the 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 50**.

Table 50: 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 51.

Table 51: Indicative Budget

Budget Category	Estimated Annual Cost (USD)	Description
Community consultations and meetings	13 300	Scheme meetings, disclosures, construction updates
Focus group discussions	5 000	Women, youth and vulnerable group sessions
District engagement and coordination	16 700	DTWG meetings, inspections, district supervision
Provincial review processes	8 900	Quarterly reviews, provincial reporting, travel
National coordination and oversight	6 700	PMU workshops, donor review preparation
Training and capacity building	12 200	IMC training, AGRITEX skills, safeguards sessions
Mobility and transport	22 200	Fuel, vehicle hire, motorbike support
Communication and information materials	4 450	Posters, GRM boards, leaflets, radio
Monitoring and documentation	5 550	Registers, documentation tools, printing
Contingency (10 percent)	9 500	Risk related flexibility
Total Estimated Annual SEP Budget	104 500	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.

TERM	DEFINITIONS
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 11**). At community level, trained grievance committees composed of local leaders, women, youth, and vulnerable group representatives act as the first point of contact. At district and provincial levels, the District Project Implementation Units (DPIUs) and Provincial Project Implementation Units (PPIUs) handle more complex or unresolved grievances, ensuring timely coordination with technical officers, local authorities, and the Environmental Management Agency (EMA). At the national level, the Project Management Unit (PMU) hosts a Grievance Redress Committee (GRC) responsible for oversight, policy guidance, documentation, and reporting to both the Ministry and funding partners.

The GRM covers grievances related to environmental impacts, land access, compensation, occupational health and safety, gender-based violence (GBV), sexual exploitation, social exclusion, pollution, waste management, and livelihood disruption. It is complemented by specific protocols for incident reporting in line with IFAD’s Incident Management Procedures (2023), which require immediate notification of serious events such as fatalities, severe environmental damage, or GBV/SEAH cases.

GRIEVANCE RESOLUTION PROCESS



Figure 11: 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 12**.



Figure 12: 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 52 summarises the alignment between GRM principles and the corresponding regulatory or institutional frameworks guiding RACP implementation.

Table 52: 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's 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 53.

Table 53: 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	Oversight, reporting, training, escalation to IFAD/AfDB	Project Steering Committee & Donors

Level	Composition	Core Responsibilities	Accountability To
	Specialists, Legal Advisor		
External	IFAD Complaints Office, AfDB IRM, National Commissions	Independent review of unresolved grievances	Funding Institutions

These visual aids help stakeholders in understanding their position within the grievance-handling chain and reinforce 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, 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.

The GRM communication approach is summarised by Figure 13.

Grievance Redress Mechanism

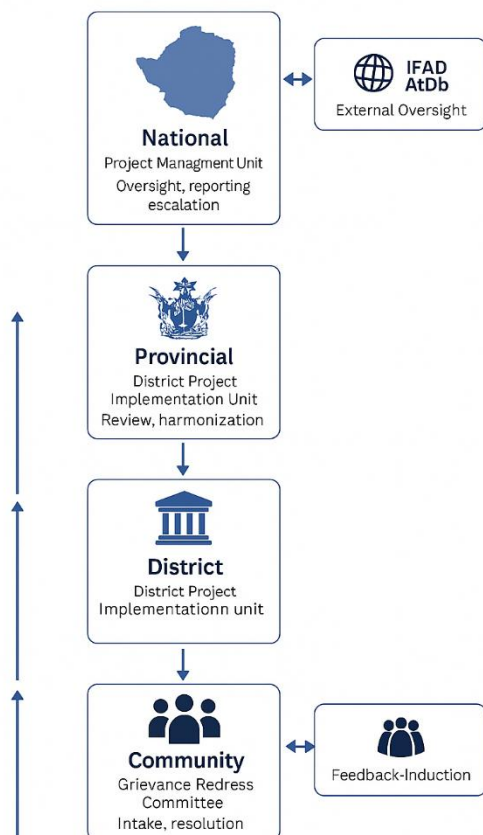


Figure 13: GRM Communication Flow

5.1 Communication Principles

The communication approach adheres to four guiding principles that ensure messages are clear, credible, and culturally appropriate:

Clarity and Simplicity: All information must be concise, easy to understand, and free from bureaucratic language. It should be presented in local languages, using relatable examples from agricultural and rural life.

Cultural Sensitivity: The RACP operates across diverse communities in Zimbabwe where language, tradition, and power dynamics vary. Communication materials respect local customs and utilize acceptable channels such as chiefs, headmen, and ward councillors as conveyors of information while ensuring gender and generational inclusivity.

Two-Way Engagement: Communication is not a one-directional broadcast. It must allow for feedback, dialogue, and mutual learning. Community meetings, participatory monitoring exercises, and field visits offer spaces for open discussion between the project team and stakeholders.

Transparency and Timeliness: Stakeholders are informed of decisions, actions, and progress within agreed timelines. Feedback is given whether a grievance is accepted, under investigation, or resolved.

5.2 Target Audiences

The communication strategy identifies and tailors messaging to different categories of stakeholders, ensuring that information reaches them through the most appropriate means:

Primary Audience: Smallholder farmers, Agricultural Producer Groups (APGs), irrigation scheme members, and local community residents who are directly affected by RACP interventions.

Secondary Audience: Contractors, service providers, labourers, local government officials, extension officers, and non-governmental partners who influence implementation or service delivery.

Tertiary Audience: Provincial and national policy makers, donor representatives (IFAD, AfDB), environmental regulators (EMA), and media institutions that ensure oversight and dissemination of lessons learned.

Each audience receives customized information that matches their level of involvement, capacity, and influence.

5.3 Communication Channels and Tools

Given Zimbabwe's diverse socio-economic and linguistic landscape, the GRM employs multiple communication channels to ensure wide coverage and accessibility. The choice of tools balances formal reporting with informal community-based communication.

Community-Level Channels:

Village and ward meetings facilitated by local leaders and AGRITEX officers.

Poster displays and notice boards at irrigation schemes, business units, and markets.

Information booths during community gatherings, agricultural shows, or training events.

Suggestion boxes at easily accessible public points such as local councils, cooperative offices, or scheme centers.

Use of local FM radio stations (in Shona, Ndebele, Tonga, and Nambia) to broadcast GRM procedures, timelines, and success stories.

Digital and Written Channels:

Hotlines managed at district and PMU level to allow anonymous reporting.

Dedicated email address and WhatsApp line for written submissions.

Monthly SMS reminders to farmers and community representatives on reporting processes and updates.

Simplified brochures and fact sheets distributed through extension officers and contractors.

Visual and Participatory Tools:

Illustrated posters and infographics depicting step-by-step grievance procedures.

Pictorial storyboards and theatre performances in communities with low literacy levels.

Radio dramas and jingles that use humour and storytelling to communicate grievance pathways.

Farmer Field Schools (FFS) discussions and participatory monitoring sessions incorporating grievance awareness modules.

The combination of these channels ensures that every individual regardless of literacy, gender, or access to technology can report a grievance and receive information about its resolution.

5.4 Key Messaging Themes

All communication efforts are built around consistent messages that reflect the values of accountability, inclusion, and fairness. Core messages include:

“The RACP listens — your voice matters.”

“Report any concern safely and confidentially.”

“Every complaint will be acknowledged and resolved within clear timelines.”

“The grievance system protects your rights and supports fair development.”

“You can report through your committee, district, or directly via phone, SMS, or email.”

Messages are repeated through different channels and contextualized to reflect local challenges such as land disputes, irrigation conflicts, or contractor performance issues.

5.5 Feedback and Reporting

Feedback is a vital part of trust-building. Complainants are regularly informed of their case status using the same channel through which they submitted their grievance. A unique case reference number is assigned to every grievance for easy tracking.

At each level of the mechanism, data on grievances received, resolved, and pending are summarized in monthly reports shared with stakeholders. At the community level, quarterly feedback sessions are organized where committees share anonymized summaries of grievances and how they were addressed. Provincial and national levels consolidate this information into semi-annual reports for submission to the Ministry and funding partners.

Where feasible, visual dashboards are developed to display performance indicators such as:

Number of grievances received per quarter.

Percentage resolved within timelines.

Types and frequency of grievances.

Geographic distribution of complaints.

Lessons learned and preventive actions taken.

This information helps the project identify systemic issues for example, recurring land access disputes or contractor negligence and triggers for proactive corrective action.

5.6 Integration with Stakeholder Engagement Plan (SEP)

The communication and awareness strategy for the GRM is fully integrated into the broader SEP. All consultations, meetings, and outreach events under the SEP incorporate a GRM awareness component. Each consultation session begins with a short presentation on how to lodge grievances, confidentiality safeguards, and available support channels. This integration ensures consistency, avoids duplication, and reinforces community ownership of the mechanism.

5.7 Capacity Building in Communication

Capacity building is essential to ensure that all grievance focal persons, field officers, and communication assistants deliver accurate and consistent messages. The PMU, with support from the AfDB and IFAD communication specialists, will conduct regular training workshops covering:

Effective communication and listening skills.

Conflict-sensitive language and de-escalation techniques.

Media engagement and public information management.

Culturally sensitive communication approaches.

Digital literacy for SMS, email, and database management.

Continuous mentoring and refresher sessions will maintain quality and consistency across provinces.

5.8 Communication Performance Monitoring

The effectiveness of communication efforts will be assessed using both quantitative and qualitative indicators. Examples include:

Proportion of stakeholders who are aware of the GRM and can describe its process.

Number of grievances submitted through various channels (indicating accessibility).

Participation rates in GRM awareness meetings by gender and age group.

Response time and satisfaction levels of complainants.

Feedback from independent audits or supervision missions.

Findings are used to refine the communication strategy and improve future outreach activities.

6.0 COMMUNICATION, OUTREACH AND AWARENESS STRATEGY

Effective communication and awareness are the lifeblood of a successful Grievance Redress Mechanism (GRM). For the Resilience Agriculture Cluster Project (RACP), communication is not simply a procedural step but a deliberate strategy to empower communities, promote transparency, and build confidence in the system. The communication framework ensures that all stakeholders, from smallholder farmers and contractors to local authorities and national agencies to understand their rights, responsibilities, and available channels for redress. It also guarantees that information flows seamlessly between different levels of the GRM, fostering accountability and learning throughout the project.

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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:

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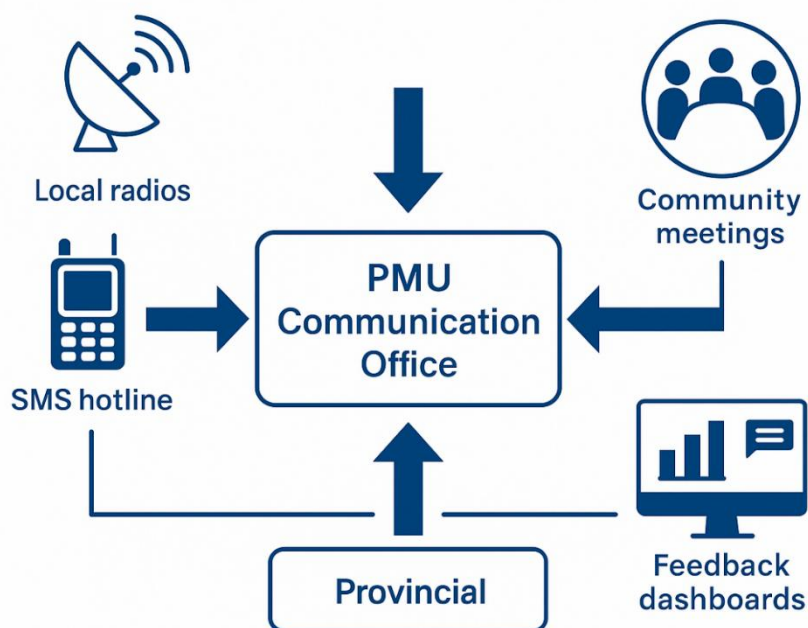


Figure 14: Feedback architecture

Figure 14 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 15).

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 Figure 15 and upon resolving a grievance Figure 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.

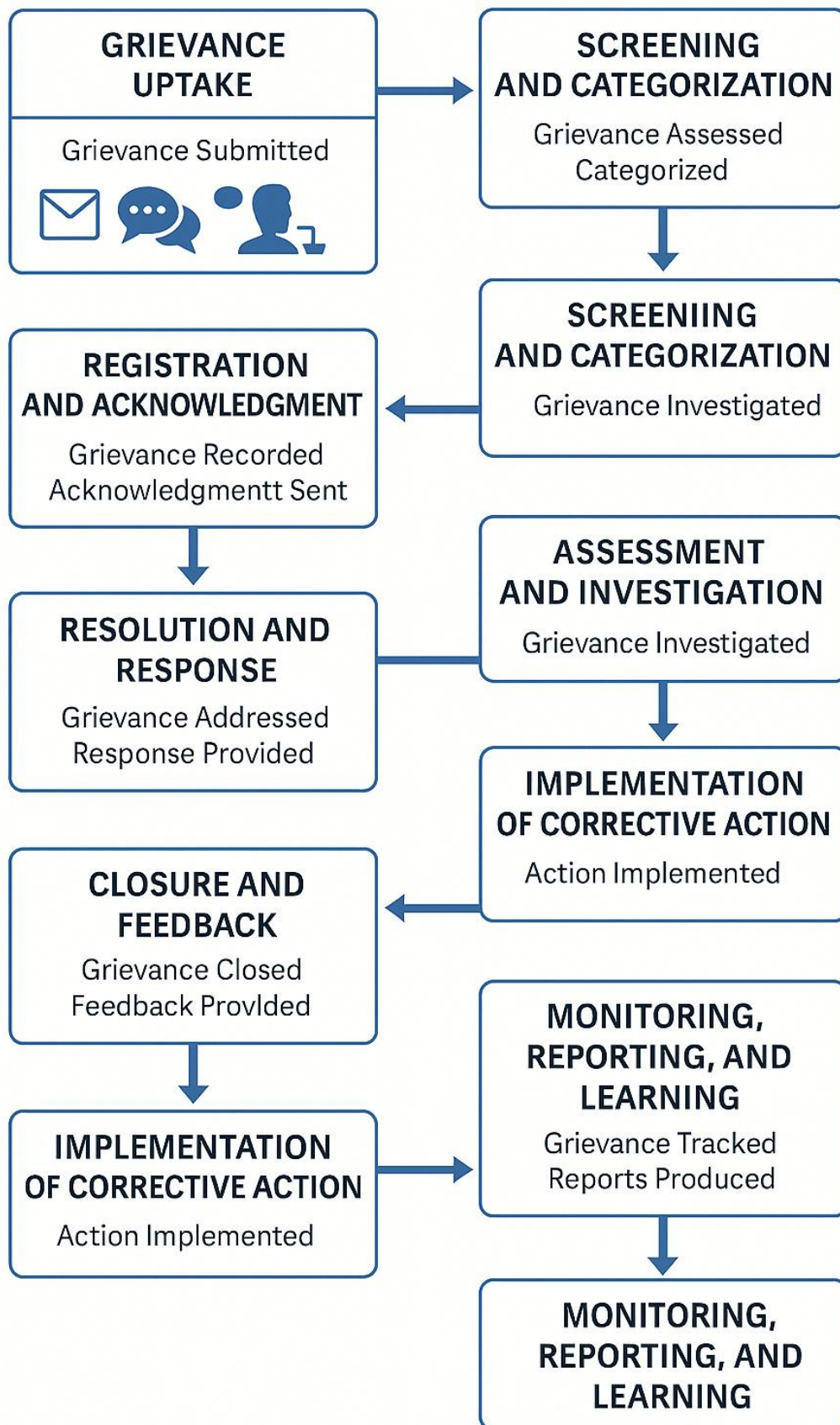


Figure 15: Steps of the Grievance Handling Cycle

8.0 ACCESS CHANNELS

An effective Grievance Redress Mechanism must provide multiple, low-cost, culturally appropriate, and disability-inclusive channels through which any stakeholder can submit concerns. All access channels must be free, accessible to remote and marginalized communities, and adaptable to varying literacy levels. The channels described here meet the expectations of the AfDB ISS (2023), IFAD SECAP (2021), Zimbabwe's Environmental Management Act, and draw on good practice observed in comparator programmes including the ZAVaCEP GRM.

In-Person Reporting

In-person reporting is the most widely used and culturally familiar engagement method in rural Zimbabwe. Stakeholders can lodge grievances directly with Community Grievance Redress Committees, village heads or local traditional leaders, AGRITEX officers, District Project Implementation Unit Safeguards Officers, or Provincial Safeguards Specialists. This method is ideal for complainants who prefer verbal communication, have limited literacy, or lack mobile devices. Officers receiving complaints must document every submission using standardized GRM Intake Forms.

Community Drop-Boxes

Secure grievance drop-boxes are placed at irrigation scheme pump houses, ward centres, clinics, schools, council offices, and AGRITEX stations. These boxes provide a confidential, anonymous pathway for complainants who may fear stigma, retaliation, or social tension. Drop-boxes are clearly labelled in Shona, Ndebele, and English, and are opened weekly by a designated officer accompanied by a community representative.

Toll-Free Hotline

A national toll-free hotline based at the PMU provides real-time access for urgent grievances such as labour accidents, water contamination, or misconduct by contractors. Hotline attendants are trained to communicate in multiple local languages, including Shona, Ndebele, Tonga, Venda, and English. After-hours messages are recorded with a guaranteed call-back within the next working day. This channel is particularly important for women, youth, and workers who require discreet reporting.

SMS and WhatsApp Messaging

SMS and WhatsApp are widely used across Zimbabwe and offer low-cost, convenient options for rapid reporting. Complainants can submit text messages, photographs, voice notes, or location pins. These channels support anonymous reporting, and they are accessible to persons with disabilities, including those with hearing impairments who may prefer text-based reporting.

Email Submissions

Email reporting is available at district, provincial, and national levels and is suitable for NGOs, contractors, district officials, agribusiness partners, and individuals with internet access. Dedicated GRM email addresses ensure that submissions are received by trained officers who follow the standard operating procedures. Email reporting aligns with national EMA procedures, which accept written or digital submissions as valid complaint pathways.

Web-Based Submission

A user-friendly online GRM form is hosted on the project's website and allows for detailed submissions, including attachments such as photos, audio recordings, and documents. Online submissions feed directly into the central GRM database, triggering automatic acknowledgment. This channel enhances transparency and allows stakeholders to track the status of their submissions when they choose to provide contact information.

Community Focal Points

Each ward and irrigation scheme nominates trained GRM focal persons representing women, youth, leadership structures, persons with disabilities, and AGRITEX extension services. These individuals support complainants in completing forms, capturing verbal grievances, and referring sensitive issues to appropriate authorities. They are essential for ensuring access for people with limited mobility, low literacy, or social vulnerabilities. GBV and SEAH focal points handle sensitive disclosures confidentially and provide safe referrals.

Engagement through Traditional and Customary Structures

Zimbabwe's customary institutions remain important channels for communication and dispute resolution. Village heads, headmen, and chiefs are respected entry points for local grievances. While the GRM does not rely on traditional structures to resolve all issues, it recognizes their legitimacy and integrates them into early-warning systems, community engagement, and non-sensitive dispute facilitation. Sensitive cases such as GBV or criminal matters are not handled through customary pathways and must be referred to formal institutions.

Special Accessibility Measures

The GRM ensures inclusion of persons with disabilities through sign-language support during district-level reporting, voice-note submission options, large-print materials, and accessible drop-box placement. For persons with low literacy, the mechanism accepts oral submissions, uses visual posters, and relies on focal persons for documentation support. Linguistic inclusion is achieved through translation of materials and hotlines into local languages. Remote communities benefit from mobile GRM outreach activities conducted during agricultural extension visits, VBU meetings, ward assemblies, and irrigation rehabilitation supervision missions.

Zero-Cost Principle

All channels are designed to be free to complainants. Toll-free numbers, free WhatsApp and SMS bundles during awareness drives, and cost-free access to offices remove financial barriers. No complainant pays to lodge, follow up, or receive feedback on a grievance. Meetings convened to address grievances are held in neutral, accessible local venues without cost to participants.

Confidential and Anonymous Reporting

The project guarantees that anyone can report a grievance anonymously via drop-boxes, SMS, WhatsApp, or web forms. Confidential reporting is available for sensitive issues, especially GBV and SEAH. Only designated officers access such cases, and all information is handled following strict confidentiality protocols. No complainant is required to reveal personal identity unless they choose to do so.

9.0 GRIEVANCE TRACKING, MONITORING AND REPORTING SYSTEM

An effective GRM relies not only on sound procedures but also on a robust monitoring and reporting framework that ensures every grievance is tracked, analysed, and used to inform decision-making. For the Resilience Agriculture Cluster Project (RACP), grievance tracking, monitoring, and reporting serve as the backbone of accountability, allowing project implementers, funders, and communities to evaluate how well the system performs in resolving disputes and preventing recurrence.

This section describes how the RACP will systematically capture, manage, and analyse grievance data from all levels of implementation, community, district, provincial, and national, and how such information will contribute to adaptive management, transparency, and compliance with IFAD, AfDB, and national safeguard frameworks.

9.1 Purpose of the Monitoring and Reporting System

The monitoring and reporting framework ensures that:

All grievances are recorded, tracked, and closed transparently within defined timelines.

Project implementers can identify patterns or recurring issues that require structural corrective actions.

Communities remain informed about how their concerns are addressed, thereby maintaining trust and participation.

IFAD and AfDB are regularly updated on safeguard compliance and effectiveness of redress actions.

Lessons learned are systematically integrated into project planning, risk management, and policy improvement.

9.2 Core Components of the GRM Tracking System

The RACP grievance monitoring system operates through four interlinked components; **data collection, data storage, data analysis**, and **reporting and feedback**, all managed under the PMU's Environmental and Social Safeguards Unit.

(a) Data Collection

Each level of the GRM Community Grievance Redress Committees (CGRCs), District Project Implementation Units (DPIUs), Provincial Project Implementation Units (PPIUs), and the PMU, collects data using standardized templates. Data sources include:

Grievance registers (paper-based and digital).

Feedback forms from complainants.

Meeting minutes and field investigation reports.

SMS, hotline, and email submissions.

Monthly progress updates from committees.

Field officers and focal persons are responsible for entering data weekly, ensuring that even remote communities with limited digital access are captured through manual reporting systems.

(b) Data Storage

All grievances are consolidated into a central digital **Grievance Management Database** housed at the PMU and backed up through cloud storage. This database captures essential fields such as:

Unique grievance reference number.

Complainant demographics (where provided).

Issue category and severity.

Actions taken and status updates.

Date of resolution and responsible officer.

Verification notes and feedback received.

Sensitive or confidential cases (e.g., GBV/SEAH) are coded to restrict access and preserve anonymity.

(c) Data Analysis

Data analysis is carried out monthly and quarterly to identify trends, recurring issues, geographic hotspots, and response times. Analysis includes:

Thematic mapping of grievances by type (environmental, social, labour, gender-based, etc.).

Trend charts showing grievance frequency over time.

Cross-tabulation of resolution rate by level (community, district, provincial).

Identification of systemic issues requiring policy or operational adjustment.

Visual dashboards (see infographic recommendation below) are produced to present this information in an accessible, evidence-based format.

(d) Reporting and Feedback

Reports are generated at four levels; monthly (community and district), quarterly (provincial), and semi-annually (national). The PMU consolidates all data into comprehensive safeguard reports submitted to IFAD, AfDB, and the Project Steering Committee. Summaries of grievances and their resolution outcomes are also shared with stakeholders through community notice boards, radio updates, and stakeholder review meetings.

9.3 Performance Indicators for GRM Monitoring

To measure the effectiveness of grievance management, the following key performance indicators (KPIs) as shown in Table 54 are applied across all levels.

Table 54: 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 16.

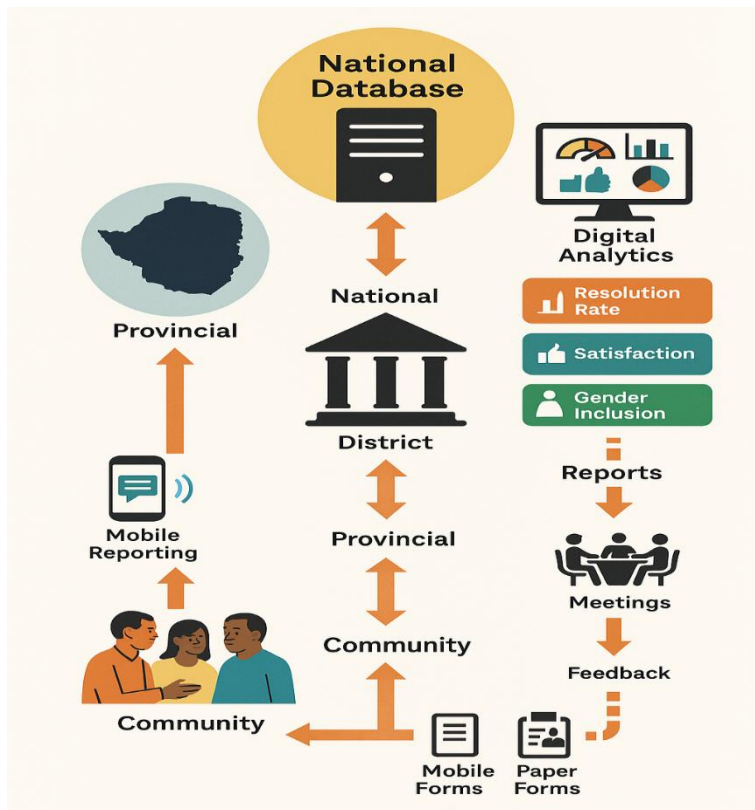


Figure 16: GRM Reporting Paths

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 55**).

Table 55: 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 56** presents a simplified monitoring table for key performance areas (KPA).

Table 56: 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 57**.

Table 57: Reporting Framework and Frequency

Report Type	Prepared By	Frequency	Content	Recipient
Monthly Summary	CGRC / DPIU	Monthly	Number of grievances, 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, 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 58** summarises the linkages of the GRM to national and external mechanisms.

Table 58: 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
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 59.

Table 59: Data Handling Controls

Control Area	Measure	Responsible Officer	Evidence
Access control	Role-based credentials and two-factor authentication	PMU Administrator	IT 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 Officer	Records 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 60**.

Table 60: 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 61**).

Table 61: 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 and 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 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 and deploy roving mediation team	PMU Coordinator

Risk	Early Warning Signal	Preventive Control	Contingency Action	Owner
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 62**) 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 62: 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
5. Initial Screening by Receiving Officer	Category of Grievance (Screening)	Level 1: Minor and quick to resolve; Level 2: Requires investigation; Level 3: Sensitive/GBV-SEAH; Level 4: Requires referral
	Referral Needed?	Yes / No. If yes, specify agency (EMA, Labour, VFU, RDC, PMU, etc.)
	Urgency Level	Normal / High / Critical
	6. Receiving Officer Details	Name of Receiving Officer
Position / Institution		CGRC / DPIU / PPIU / PMU
Signature		
Date		
7. Acknowledgment to Complainant	Acknowledgment Provided	Yes / No
	Method	SMS / Call / Written slip / WhatsApp / In-person

	Date of Acknowledgment	
8. Official Use (Tracking)	Entered into GRM Database By	Name and signature
	Date Entered	
	Case File Opened	Yes / No

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
Date Investigation Started		DD/MM/YYYY.
Date Investigation Completed		DD/MM/YYYY.
Investigation Findings Summary		Key issues, facts established, verification notes.
Documents Attached		Investigation forms, site visit notes, photos.
6. Resolution Process	Proposed Resolution	Corrective action agreed upon by complainant and committee.

	Date Resolution Proposed	DD/MM/YYYY.
	Resolution Accepted by Complainant?	Yes / No / Partially.
	Responsible Party for Action	Contractor / PMU / DPIU / PPIU / EMA / Labour.
	Deadline for Corrective Action	DD/MM/YYYY.
7. Corrective Action Tracking	Status of Corrective Action	Not started / In progress / Completed / Pending external actor.
	Date Completed	DD/MM/YYYY.
	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.

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. These pests are also listed below.

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 63 below presents the core indicators to be monitored.

Table 63: Integrated Pest Management Monitoring Indicators

Indicator Category	Indicator	Purpose
Pest pressure	Pest incidence and severity for major pests including <i>Spodoptera frugiperda</i> , <i>Tuta absoluta</i> , 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 64**.

Table 64: 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 65.

Table 65: 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

Frequency	Monitoring Activity	Led by
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 cost budget will be prepared at the 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 approved scheme of 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 66.

Table 66: 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

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 67 below provides an annualised estimate supporting irrigation schemes

Table 67: 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 <i>Tuta absoluta</i> , 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 Mashonaland West.

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	<i>Spodoptera frugiperda</i> , <i>Busseola fusca</i> , <i>Agrotis</i> spp, <i>Aphis</i> spp
Horticulture	<i>Tuta absoluta</i> , whiteflies, fruit flies, DBM	<i>Tuta absoluta</i> , <i>Bemisia tabaci</i> , <i>Bactrocera dorsalis</i> , <i>Plutella xylostella</i>
Stored grain	Maize weevil, LGB, bruchids	<i>Sitophilus zeamais</i> , <i>Prostephanus truncatus</i> , <i>Acanthoscelides obtectus</i>

Emerging pests	Fall armyworm, <i>Tuta absoluta</i>	As listed above
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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)
Campechlor (Toxaphene)	Stockholm Convention	POP, banned globally
Chlordane	POP	Long-term soil and water contamination
Dieldrin	POP	Bioaccumulation and extreme toxicity
Endrin	POP	Very persistent and carcinogenic
Heptachlor	POP	Banned for agricultural use
Lindane (Gamma-HCH)	POP	Endocrine disruptor; persistent pollutant
Parathion (ethyl and methyl)	WHO Ia/Ib	Extremely hazardous
Methyl bromide	Ozone Depleting	Banned except for critical uses
Mercury-based fungicides	Highly Hazardous	Toxic to humans and aquatic life
Monocrotophos	Class Ib	Very harmful to birds and farmers
Phorate	Class Ia	Highly systemic toxin
Phosphamidon	Class Ia	Neurotoxic
Methamidophos	Class Ib	Restricted due to poisoning cases

These chemicals **must never be used** within the project area.

B. ZIMBABWE-RESTRICTED PESTICIDES (Not Allowed Under the Project)

Zimbabwe's **Fertilizers, Farm Feeds and Remedies Act** restricts various pesticides due to misuse, poisoning cases or environmental concerns. Even if legally restricted nationally, the project prohibits their use entirely.

Active Ingredient	Restriction Basis
Carbofuran	Highly toxic; improper use by farmers

Diazinon	Hazardous around water bodies
Fenamiphos	Soil and groundwater contamination
Methomyl	Acute toxicity to humans
Endosulfan	Banned in Zimbabwe (2012)

C. PESTICIDES NOT ALLOWED NEAR WATER BODIES

Because irrigation schemes operate next to canals, drains and reservoirs, the following pesticides are **prohibited** due to high aquatic toxicity:

Active Ingredient	Reason
Cypermethrin	Highly toxic to fish and aquatic insects
Lambda-cyhalothrin	Persistence in sediment
Deltamethrin	Kills beneficial aquatic organisms
Chlorpyrifos	High toxicity; drift risk
Profenofos	Strong effect on aquatic invertebrates

Biological options are preferred in these zones.

D. RESTRICTED USE IN RRIGATION SCHEMES (Allowed Only Under Strict Guidance)

These pesticides are **not banned**, but due to misuse risks, the project will allow them only when:

thresholds are reached

correct PPE is available

extension officers supervise

proper disposal procedures are followed

Active Ingredient	Notes
Imidacloprid	Allowed only in seed treatment; harmful to bees
Acetamiprid	Lower risk but requires controlled use
Mancozeb	Avoid use near wetlands; follow re-entry intervals
Metalaxyl	Must follow label rates to avoid resistance
Permethrin	Restricted near water bodies; toxic to fish

E. BOTANICAL AND BIOPESTICIDE PRODUCTS APPROVED FOR PROJECT USE

The following low-risk products are **recommended**, especially for horticulture crops:

Biopesticide / Botanical	Target Pests
<i>Bacillus thuringiensis</i> (Bt)	Caterpillars, <i>Spodoptera</i> , <i>Tuta absoluta</i>
<i>Beauveria bassiana</i>	Whiteflies, aphids, thrips

Neem extracts (<i>Azadirachta indica</i>)	Soft-bodied insects
<i>Metarhizium anisopliae</i>	Soil pests, locust hoppers
Pyrethrum (natural)	General soft-bodied pests

These are fully compliant with AfDB and IFAD safeguards.

F. SUMMARY OF ALLOWED VS PROHIBITED CHEMICALS

Category	Status for IPMP	Notes
WHO Class Ia / Ib	Prohibited	Never to be procured or used
POPs (Stockholm Convention)	Prohibited	Persistent environmental toxins
Highly toxic organophosphates	Prohibited	Unsafe for farmers
Synthetic pyrethroids near water	Restricted	High aquatic toxicity
Neonicotinoids	Restricted	Bee protection required
Copper fungicides	Allowed with caution	Avoid buildup in soils
Biopesticides	Fully allowed	Preferred under Integrated Pest Management
Neem/plant extracts	Fully allowed	Safe and sustainable

Appendix 34: Baseline Data Tables

District-Level Baseline Summary Table (Key Indicators)

Indicator Category	Zvimba	Chegutu	Mhondoro-Ngezi	Sanyati
Topography & Landform	Highveld plateau (1100–1300 m); gently sloping; mix of savannah woodland & wetlands.	Gently undulating terrain; mixed land uses; moderate slope.	Undulating terrain on Sanyati basin; sandy loams over granite; rolling wooded hills & rocky outcrops.	Low-lying, seasonally flood-prone, generally flat to gently sloping.
Rainfall & Climate	450–1000 mm/yr; Highveld climate; variable rainfall.	Highly variable rainfall; drought–flood cycles common.	Similar to Zvimba but with stronger rainfall seasonality.	Drought-prone; high climate vulnerability in dry wards.
Hydrology & Water Sources	Small dam supplying Chomotamba; wetlands important for hydrology.	Surface water from local rivers; seasonal flows.	Sanyati basin rivers; requires drainage to avoid waterlogging.	Munyati river system; some communities flood-exposed.
Soils	Clay-loams, heavier soils around Lazenby.	Mixed soils; moderate fertility.	Sandy loams prone to waterlogging; granite-derived.	Alluvial soils along Munyati; mixed soils in drylands.
Biodiversity	Miombo woodlands, wetlands, cranes habitat.	Mixed woodlands and disturbed agricultural landscapes.	Wooded hills, rocky outcrops, diverse habitats.	Dryland woodland & riverine ecosystems.
Road Safety Baseline	Gravel roads prone to erosion; slippery when wet.	Poorly maintained roads; frequent flooding; erosion.	Unpaved roads with heavy mining traffic; hazardous and congested.	Unpaved, seasonally damaged roads; limited signage.
In-field Safety	Unmarked roads; shared by tractors, livestock & pedestrians.	Congested pathways; lack of signage.	Unmarked, aging infrastructure; mixed traffic.	Shared use with machinery; poor signage.

Emergency Access	Clinics often >20 km away; long delays.	Long distances to health facilities (>30 km).	Schemes >20 km from clinics/police; slow response.	Poor wet-season access; long travel distances.
Security Baseline	Theft of irrigation assets; weak fencing; remote policing.	Theft, vandalism, weak governance; limited policing.	Theft of equipment; wildlife risks; conflict over water.	High theft, vandalism, boundary disputes.
Women's Safety	Risks during early/late travel; isolated pathways.	GBV concerns worsened by economic pressures.	Mobility constraints related to distance & isolation.	Risks near riverbanks and isolated irrigation fields.
Wildlife Risks	Wildlife near wetlands; crop damage risk.	Moderate wildlife interactions.	Wildlife presence around outcrops & bush areas.	Wildlife threats near water sources and irrigation channels.
Boundary/Water Conflicts	Boundary disputes in some schemes.	Water-use tensions common; governance weak.	Conflicts over water allocation; weak oversight.	High incidence of plot and water boundary disputes.
Socio-Economic Conditions	Mixed crop–livestock; moderate poverty; strong reliance on irrigation schemes.	Agriculture dominated; poverty linked to market access challenges.	Mining & agriculture mix; limited employment diversity.	Agriculture dominant; poverty high in remote wards.
Livelihood Activities	Irrigated crops, livestock, horticulture.	Cash crops, livestock, small enterprises.	Livestock & dryland crops; irrigation lower performing.	Irrigated vegetables, maize; gold panning; livestock.
Vulnerable Groups	Women, youth, elderly, child-headed households.	Similar groups; women face economic exclusion.	Labour-constrained households, elderly.	Dryland farmers, women, youth, disabled persons.
Gender Dynamics	Male-dominated decisions; limited women leadership;	Patriarchal norms; women face limited	Gender disparities in land and leadership roles.	Low women representation; some schemes show 2 of 7

	cultural constraints.	resource control.		IMC seats held by women.
Cultural Considerations	Strong Shona traditions; cultural sites possible.	Need to engage local leaders; cultural norms influential.	Traditional leadership strong in land issues.	Cultural norms influence mobility, participation, land access.

Appendix 35: Climate Data Tables

Chegutu Average Monthly Temperature and Precipitation

Month	Average Temperature (°C)	Average Precipitation (mm)
Jan	23.7	400.5
Feb	23.3	320.5
Mar	23.2	184.9
Apr	22.2	60.8
May	21.0	10.5
Jun	19.1	2.1
Jul	19.4	1.6
Aug	22.9	0.5
Sep	26.7	0.5
Oct	28.6	19.3
Nov	27.5	141.0
Dec	25.1	307.7

Average weather trends for Sanyati

Month	Average Temperature (°C)	Average Precipitation (mm)
Jan	23.7	400.5
Feb	23.3	320.5
Mar	23.2	184.9
Apr	22.2	60.8
May	21.0	10.5
Jun	19.1	2.1
Jul	19.4	1.6
Aug	22.9	0.5
Sep	26.7	0.5
Oct	28.6	19.3
Nov	27.5	141.0
Dec	25.1	307.7

Weather Chart for Mhondoro-Ngezi

Month	Average Temperature (°C)	Average Precipitation (mm)
Jan	23.7	400.5
Feb	23.3	320.5
Mar	23.2	184.9
Apr	22.2	60.8
May	21.0	10.5
Jun	19.1	2.1
Jul	19.4	1.6
Aug	22.9	0.5
Sep	26.7	0.5

Oct	28.6	19.3
Nov	27.5	141.0
Dec	25.1	307.7

Appendix 36: Terms of Reference



ENVIRONMENTAL MANAGEMENT AGENCY

All communication 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 Mwangura (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



RECEIVED BY:
DESIGNATION:
CONTACT NUMBER:

DATE:
LD NUMBER:

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