



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

# **RESILIENCE AGRICULTURE CLUSTER PROJECT (RACP)**

## **INTEGRATED PEST MANAGEMENT PLAN (IPMP)**



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## 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. Agricultural Research, Innovation and Development plant protection unit (ARID-PPU) 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.

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## ABBREVIATIONS

Abbreviation	Full Meaning
ACIA	Agricultural Chemicals Industry Association
AfDB	African Development Bank
AGRITEX	Agricultural Technical and Extension Services
Bt	<i>Bacillus thuringiensis</i>
DRSS	Department of Research and Specialist Services
DVS	Department of Veterinary Services
EHT	Environmental Health Technician
EMA	Environmental Management Agency
ETL	Economic Threshold Level
EIL	Economic Injury Level
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
GAP	Good Agricultural Practices
GRM	Grievance Redress Mechanism (for pesticide-related complaints)
HHP	Highly Hazardous Pesticide
HSE	Health, Safety and Environment
IMC	Irrigation Management Committee
IPDM	Integrated Pest and Disease Management
IPM	Integrated Pest Management
IPMP	Integrated Pest Management Plan
ISS	Integrated Safeguards System (AfDB)
LD50	Lethal Dose (50%)
LC50	Lethal Concentration (50%)
MLAFWRD	Ministry of Lands, Agriculture, Fisheries, Water and Rural Development
MRL	Maximum Residue Limit
OS	Operational Safeguard (AfDB)
OS3	Operational Safeguard 3 – Biodiversity and Ecosystem Services
OS4	Operational Safeguard 4 – Pollution Prevention and Control
PCA	Pesticides Control Authority
PHI	Pre-Harvest Interval
PMU	Project Management Unit
POP	Persistent Organic Pollutant
PPE	Personal Protective Equipment
RACP	Resilience Agriculture Cluster Project
SI	Statutory Instrument
WHO	World Health Organization

## KEY TERMS AND DEFINITIONS

<b>Term</b>	<b>Definition</b>
<b>Integrated Pest Management (IPM)</b>	A sustainable approach to controlling pests that prioritises prevention, monitoring, biological control and safe, regulated pesticide use.
<b>Highly Hazardous Pesticides (HHPs)</b>	Pesticides classified by WHO or international conventions as posing high risks to human health or the environment and prohibited under the project.
<b>Economic Threshold</b>	The pest population level at which control measures must be taken to prevent economic loss.
<b>Biological Control</b>	Use of natural enemies such as predators, parasites or pathogens to suppress pest populations.
<b>Spray Drift</b>	Movement of pesticide droplets away from the target area during application, posing risks to people, water bodies and non-target crops.
<b>Triple Rinsing</b>	Method of cleaning used pesticide containers three times before puncturing and disposal.
<b>Safeguards Compliance</b>	Meeting requirements of AfDB, IFAD and national environmental regulations when conducting project activities.
<b>Pesticide Storage Room</b>	A secure, ventilated facility for safe pesticide storage and inventory control in irrigation schemes.
<b>Grievance</b>	Any concern, complaint or report related to pesticide use, environmental impact, safety issues or mismanagement requiring formal attention.
<b>Beneficial Organisms</b>	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, agro dealers, farmer groups and local leadership (**APPENDIX 3**). 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 (see **APPENDIX 2**)
- 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 (see **APPENDIX 2**). 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 (ARID-PPU). 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 in **Appendix 1**.

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**

While pest outbreaks threaten crop and livestock productivity, inappropriate pesticide use presents significant environmental and social risks. In irrigation schemes and intensified production systems, these risks are heightened due to continuous cropping, proximity to water sources and increased chemical application frequency. The following risks have been identified.

##### **Environmental Risks**

Environmental risks associated with pesticide use include:

- Contamination of surface and groundwater sources from pesticide runoff, spray drift and accidental spillages
- Reduction of beneficial insects including bees, pollinators and natural predators
- Soil degradation from repeated use of persistent or broad-spectrum chemicals
- Accumulation of pesticide residues in vegetables and grains
- Development of pesticide resistance in key pest populations

Improper storage and disposal practices further increase risks of environmental contamination, particularly where leftover pesticides are stored near canals or disposed of in open fields.

*Mitigation approach:* Promote Integrated Pest Management as the primary strategy, restrict chemical use to threshold-based application, enforce buffer zones near water bodies, strengthen farmer training on safe handling and disposal, and encourage use of biological and botanical alternatives.

##### **Social Risks**

Social risks primarily affect farmers, farm workers and surrounding communities. These 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 resulting from improper handling
- Food safety risks for consumers due to pesticide residues

- Increased financial burden due to repeated spraying and purchase of multiple products
- Greater vulnerability of children due to presence of chemicals stored inside homes

Additional institutional and behavioural risks observed in the project area include:

- Lack of regular training on pesticide use, application techniques, safe handling, storage and disposal
- Use of expired pesticides due to limited awareness, failure to read labels or inability to interpret expiry dates
- Improper storage of leftover pesticides without clear safety procedures
- Limited use of personal protective equipment or use of inadequate protective gear
- Absence of designated storage facilities, leading to household-level storage of pesticides

These risks collectively increase the likelihood of occupational exposure, accidental poisoning, household contamination and community-level health impacts.

*Mitigation approach:* Establish structured and periodic training programmes; promote correct label reading and expiry checks; enforce use of appropriate PPE; develop and disseminate clear storage and disposal guidelines; and support establishment of secure, designated pesticide storage facilities at irrigation scheme level.

The environmental and social risks outlined above justify the need for a comprehensive Integrated Pest Management framework. Section 6 presents detailed mitigation and management measures, including institutional responsibilities, operational procedures, monitoring requirements and compliance mechanisms aligned with AfDB and IFAD safeguard standards. 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 ARID-PPU
- 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 ARID-PPU 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
- ARID-PPU 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 Integrated Risk Mitigation Matrix**

Irrigation-based production in Zimbabwe creates stable green cover, higher humidity and near-continuous host presence, which accelerates pest population cycles and increases the likelihood of frequent pesticide use. In such systems, effective pest management is not defined by “spraying harder”, but by disciplined prevention, early detection, correct thresholds, and strict control of pesticide lifecycle practices to protect water, soils, beneficial organisms and people—especially women, youth and children who are most exposed through mixing, harvesting and household storage practices.

The matrix (**Table 1**) operationalises Section 5 risks into targeted measures to avoid, minimise and mitigate impacts, while reinforcing IPM as the first-line strategy and chemical control as a last resort.

**Table 1: Integrated Pest Management Plan (IPMP) – Mitigation Matrix**

<b>Activities</b>	<b>Risks/impacts</b>	<b>Enhancement/Mitigation Measure</b>	<b>Phase of impact occurrence</b>	<b>Frequency</b>	<b>Responsibility</b>	<b>Indicative Cost (USD)</b>
Pre-season scheme IPM planning and cropping calendar harmonisation	Pest build-up due to continuous cropping; pesticide overuse	Agree synchronised planting windows; enforce rotation/intercropping plans; sanitation campaign (remove residues/volunteer hosts); designate block scouts	Pre-season and start of season	1–2 sessions per scheme per season	IMC, AGRITEX, Farmers, District Project Team	600 per scheme/season
Weekly pest scouting and threshold-based decision making	Late detection; reactive spraying; resistance development	Train block scouts; use simple scouting forms; apply economic thresholds; maintain pest logbook; rapid alerts via extension channels	In-season	Weekly	Farmers/Scouts, AGRITEX	300 per scheme/season (tools/forms)
Demonstration plots for non-chemical controls	Low adoption of IPM; reliance on chemicals	Demo plots showing rotation, sanitation, trap use, biopesticides (Bt/Beauveria/neem), habitat strips for beneficials	In-season	1–2 demos per scheme per season	AGRITEX, PMU/PPIU, Farmers, Agro-dealers	200 per demo plot
Buffer zones and no-spray areas near canals/water points	Surface/groundwater contamination from runoff/drift	Mark buffer zones; prohibit mixing/washing near water; establish designated mixing point; promote low-drift practices	In-season and ongoing	Enforced continuously; verified monthly	IMC, AGRITEX, EMA	150 per scheme (signage/markings)
PPE promotion and enforcement for applicators	Farmer exposure; respiratory/skin impacts; chronic health risks	Minimum PPE standard for mixers/sprayers; practical PPE demonstrations; enforce “no PPE, no spray”; prioritise women/youth protection	In-season and ongoing	Continuous; refresher monthly	AGRITEX, IMC, Farmers	3,000 per district/year (PPE sets—scaled)
Sprayer calibration and application	Over/under dosing; residues; resistance;	Hands-on calibration; nozzle selection; mixing procedures; re-entry intervals;	In-season	Monthly during peak spray	AGRITEX, Agro-dealers	400 per session

Activities	Risks/impacts	Enhancement/Mitigation Measure	Phase of impact occurrence	Frequency	Responsibility	Indicative Cost (USD)
technique training	exposure	pre-harvest intervals; drift control		periods		
Control of expired, counterfeit and unregistered pesticides	Ineffective control; poisoning risk; residues	Sensitise farmers on label reading and expiry checks; procure only from registered dealers; spot checks at scheme level; report suspicious products	Pre-season and in-season	Quarterly checks; ongoing awareness	AGRITEX, ARID-PPU, EMA, Agro-dealers	600 per district/quarter
Scheme-level secure pesticide storage facility	Household storage; child exposure; leaks into environment	Establish lockable, ventilated storage room; storage register; restricted access; hazard signage; separate from food/seed	Pre-season and ongoing	One-off setup; monthly inventory	PMU/PPIU, IMC, AGRITEX	1,000 per storage room (min.)
Safe management of leftover pesticides and mixing residues	Improper storage/disposal; water contamination	Clear SOPs: return-to-store policy; labelled containers; no home storage; spill kits; designated wash-down area away from water	In-season and ongoing	Continuous ; verified monthly	IMC, AGRITEX	250 per scheme (starter kit/SOPs)
Container management and disposal	Reuse of containers; soil/water contamination	Triple rinsing; puncture containers; temporary secure holding; disposal pit or collection for approved disposal	In-season and post-season	Continuous ; disposal monthly/seasonally	IMC, AGRITEX, EMA	500 per disposal pit; plus 150/quarter for verification
Food safety controls on residues	Pesticide residues in vegetables/grains	Train on PHIs; enforce harvest interval; record spray dates; promote biopesticides for leafy vegetables; awareness for buyers/aggregation points	In-season and post-harvest	Continuous ; checks at harvest cycles	AGRITEX, IMC, Farmers	300 per scheme/season
Post-harvest pest control using safer storage technologies	Misuse of grain pesticides; poisoning; chronic	Promote hermetic storage; safe grain protectants only when necessary; ban illegal fumigants; train on storage	Post-harvest	Seasonal (after harvest)	AGRITEX, Farmers, Agro-dealers	700 per district/season

<b>Activities</b>	<b>Risks/impacts</b>	<b>Enhancement/Mitigation Measure</b>	<b>Phase of impact occurrence</b>	<b>Frequency</b>	<b>Responsibility</b>	<b>Indicative Cost (USD)</b>
	exposure	hygiene				
Biological control and pollinator protection	Reduction of beneficial insects/bees	Avoid broad-spectrum spraying during flowering; promote selective products; protect habitat strips; restrict neonicotinoids where relevant	In-season	Continuous ; reinforced monthly	AGRITEX, IMC, Farmers	200 per scheme/season
Integrated compliance inspections (multi-sectoral)	Weak enforcement; repeated unsafe practices	Quarterly inspections covering storage, PPE use, disposal, records, buffer zones; corrective actions logged and followed up	In-season and ongoing	Quarterly	EMA, ARID-PPU, AGRITEX, District Team	450 per quarter (district-level)
Incident response and GRM linkage for pesticide issues	Unreported poisoning, drift complaints, contamination	Simple reporting channel; referral to clinic; incident log; GRM entry and closure tracking; corrective actions	In-season and ongoing	Continuous ; reviewed monthly	IMC, AGRITEX, District Team, Health facility link	200 per district/year (materials/logs)
Annual review and update of approved pesticide list and IPM performance	Resistance trends; outdated guidance	Annual technical review; update thresholds, priority pests, allowed products; incorporate monitoring findings	Annual	Once per year	ARID-PPU, EMA, PMU	1,500 per year

## 7.4 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 ARID-PPU 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 ARID-PPU and EMA will be incorporated in the annex of the final plan.

## 7.5 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

## 7.6 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

## 7.7 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

## **7.8 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

## **7.9 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**

Effective implementation of the Integrated Pest Management Plan (IPMP) requires structured monitoring to ensure that environmental and social risks identified under Section 5 are systematically mitigated through the measures outlined in Sections 6 and 7.

Monitoring will focus on measurable, quantitative indicators that assess:

- Adoption of integrated pest management practices
- Safe pesticide handling and storage
- Reduction of environmental contamination risks
- Strengthening of institutional and technical capacity

- Protection of farmers, consumers and vulnerable groups

Monitoring will be undertaken at scheme, district and national levels through routine extension visits, quarterly multi-sector inspections, and annual performance reviews. Indicators have been selected to align with identified risks, mitigation measures and institutional responsibilities within Zimbabwe's agricultural and environmental governance framework.

**Table 2** below presents the core indicators to be monitored.

*Table 2: Integrated Pest Management Monitoring Indicators*

<b>Risk / Impact</b>	<b>Enhanced / Mitigation Measures</b>	<b>Monitoring Indicator (Quantitative &amp; Verifiable)</b>	<b>Frequency of Monitoring</b>	<b>Responsibility of Monitoring</b>	<b>Monitoring Cost (USD/Year Estimate)</b>
Low farmer knowledge on IPM leading to over-reliance on chemicals	Structured IPM training for irrigation farmers, VBUs, and agro-dealers; farmer field demonstrations; seasonal refresher sessions	<ul style="list-style-type: none"> <li>• Number of farmers trained on Integrated Pest &amp; Disease Management (target: <math>\geq 60\%</math> of scheme members per season)</li> <li>• Number of agro-dealers trained on IPM compliance (at least 1 per growth point per district)</li> <li>• Number of IPM trainings conducted per district per season</li> </ul>	Quarterly (aligned to cropping cycles)	AGRITEX (District), ARID-PPU Plant Protection, RACP Provincial E&S Desk	6,500 (training logistics, materials, field demo support)
Unsafe pesticide handling and application resulting in health risks	Practical hands-on training on calibration, mixing, PPE use; demonstration of correct spraying techniques	<ul style="list-style-type: none"> <li>• Number of farmers trained on proper pesticide handling (disaggregated by sex and youth)</li> <li>• % of trained farmers correctly demonstrating sprayer calibration during spot checks (target <math>\geq 70\%</math>)</li> </ul>	Bi-annual field verification + random spot checks during spraying periods	AGRITEX, Environmental Health Technician (EHT), RACP E&S Officer	4,200
Use of expired or unregistered pesticides	Awareness on label reading; collaboration with agro-dealers; ARID-PPU-approved pesticide list circulation	<ul style="list-style-type: none"> <li>• % of agro-dealers displaying current ARID-PPU-approved pesticide list (target 100%)</li> <li>• Number of expired/unregistered products detected during inspections (target: 0 tolerance)</li> </ul>	Quarterly inspections	ARID-PPU Inspectorate, EMA District Office	2,000 (inspection transport & verification)

<b>Risk / Impact</b>	<b>Enhanced / Mitigation Measures</b>	<b>Monitoring Indicator (Quantitative &amp; Verifiable)</b>	<b>Frequency of Monitoring</b>	<b>Responsibility of Monitoring</b>	<b>Monitoring Cost (USD/Year Estimate)</b>
Improper storage of leftover pesticides at household level	Sensitisation campaigns; establishment of designated community-level storage facilities; storage guidelines dissemination	<ul style="list-style-type: none"> <li>• Number of farmers sensitised on proper storage of leftover pesticides</li> <li>• Number of designated storage facilities established at irrigation schemes</li> <li>• % of schemes with lockable ventilated pesticide storage (target <math>\geq 80\%</math>)</li> </ul>	Quarterly	Irrigation Management Committees (IMCs), AGRITEX, RACP District Engineer	8,000 (basic storage infrastructure support & supervision)
Lack of PPE during pesticide application	Promotion and monitoring of minimum PPE standards; awareness campaigns; linkage to suppliers	<ul style="list-style-type: none"> <li>• % of farmers observed wearing minimum PPE during spraying (boots, gloves, mask) (target <math>\geq 60\%</math> first year, <math>\geq 80\%</math> by year 3)</li> </ul>	During each spraying season	AGRITEX, IMC Safety Subcommittee	1,800 (spot check supervision)
Limited adoption of alternative pest management methods	Promotion of biological control agents (Bt, neem), pheromone traps, crop rotation, intercropping, resistant varieties	<ul style="list-style-type: none"> <li>• Number of alternative pest management methods promoted per district (minimum 4 methods annually)</li> <li>• Number of schemes using at least two non-chemical methods (target <math>\geq 70\%</math> of schemes)</li> </ul>	Seasonal	AGRITEX, ARID-PPU, RACP Agronomy Specialist	3,500 (demo plots & monitoring visits)
Weak agro-dealer technical capacity	Engagement with Agro-Chemical Industry Association; verification of qualified personnel presence	<ul style="list-style-type: none"> <li>• Number of skilled technical staff employed by agro-dealers (qualified personnel per outlet)</li> <li>• % of agro-dealers with documented pesticide advisory qualification (target <math>\geq 75\%</math>)</li> </ul>	Annual audit	ARID-PPU, AGRITEX Provincial Office	1,200

<b>Risk / Impact</b>	<b>Enhanced / Mitigation Measures</b>	<b>Monitoring Indicator (Quantitative &amp; Verifiable)</b>	<b>Frequency of Monitoring</b>	<b>Responsibility of Monitoring</b>	<b>Monitoring Cost (USD/Year Estimate)</b>
Inadequate disposal of pesticide containers leading to environmental contamination	Training on triple rinsing; container collection campaigns; puncturing and safe disposal pits at schemes	<ul style="list-style-type: none"> <li>• % of farmers practicing triple rinsing (verified during inspection)</li> <li>• Number of container disposal pits constructed per scheme</li> <li>• Number of storage facilities constructed for pesticides</li> </ul>	Quarterly + post-season	EMA, AGRITEX, IMCs	5,500 (disposal pit supervision & awareness materials)
Weak incident reporting and GRM uptake for pesticide-related issues	Integration of pesticide incidents into GRM registers; awareness on reporting channels	<ul style="list-style-type: none"> <li>• Number of pesticide-related grievances logged in GRM register</li> <li>• % of grievances resolved within 30 days (target <math>\geq</math> 90%)</li> </ul>	Monthly GRM review	District Social Safeguards Officer, AGRITEX, IMC	1,000
Environmental contamination of water bodies from spray drift or runoff	Buffer zone enforcement; training on spray drift control; no-spray zones near canals	<ul style="list-style-type: none"> <li>• Number of schemes with demarcated buffer zones</li> <li>• Number of environmental compliance inspections conducted</li> <li>• Recorded pesticide contamination incidents (target: zero)</li> </ul>	Bi-annual + after heavy rainfall events	EMA, AGRITEX, Catchment Councils (where applicable)	2,500

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 3**.

*Table 3: Roles and Responsibilities in Integrated Pest Management Monitoring*

<b>Actor</b>	<b>Monitoring Responsibilities</b>
<b>Farmers</b>	Daily scouting, reporting pest outbreaks, following Integrated Pest Management practices, safe pesticide handling
<b>Irrigation Management Committees</b>	Enforce synchronised planting, supervise pesticide storage and disposal, ensure weekly pest checks
<b>Extension officers</b>	Conduct monthly field assessments, verify Integrated Pest Management adoption, support diagnosis
<b>ARID-PPU plant protection specialists</b>	Provide diagnostic support, confirm invasive pests, update thresholds
<b>EMA officers</b>	Inspect hazardous substance storage, verify safe disposal
<b>District and provincial project teams</b>	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 4**.

*Table 4: Monitoring Schedule*

<b>Frequency</b>	<b>Monitoring Activity</b>	<b>Led by</b>
<b>Weekly</b>	Field scouting in irrigation blocks	Farmers and block scouts
<b>Bi weekly</b>	Review of pesticide stocks and disposal areas	Scheme committees
<b>Monthly</b>	Field verification of Integrated Pest Management adoption and pesticide safety	Extension officers
<b>Quarterly</b>	Multisectoral Integrated Pest Management compliance inspections	ARID-PPU, EMA, veterinary, extension
<b>Seasonal</b>	Pre planting and post harvest Integrated Pest Management review	District teams

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<b>Annually</b>	Project wide Integrated Pest Management performance evaluation	Provincial team
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## 8.4 Reporting and Data Management

Monitoring is only useful when findings are communicated clearly and promptly. The reporting system ensures that information moves efficiently from farmers to district teams. Monitoring data are organised and shared through structured reporting channels. This allows the project to detect trends, initiate corrective action and maintain accurate records of pesticide use and Integrated Pest Management adoption.

Key reporting requirements include:

- Weekly scouting forms submitted to extension officers
- Monthly Integrated Pest Management reports compiled by extension officers
- Storage of pesticide inventory records at scheme depots
- District consolidation of Integrated Pest Management reports into quarterly summaries
- Use of WhatsApp groups for rapid alerts on new pest outbreaks
- Integration of findings into annual project performance reviews

These reporting pathways provide real time situational awareness and allow rapid mobilisation when pest levels rise unexpectedly.

## 8.5 Evaluation Mechanisms

Evaluation goes beyond routine monitoring and involves assessing whether Integrated Pest Management is achieving its intended environmental, agronomic and social outcomes. These evaluations guide strategic improvements and resource allocation.

Evaluation will focus on:

- Reduction in frequency and volume of pesticide use
- Increased use of preventive and biological control methods
- Reduction in pest related crop losses in irrigation schemes
- Adoption of safe pesticide practices including PPE use
- Effectiveness of capacity building activities
- Compliance with national legislation and safeguard requirements

Evaluations form an essential feedback loop for improving Integrated Pest Management implementation.

## 8.6 Feedback and Adaptive Management

Integrated Pest Management must remain dynamic because pest behaviour changes with climate variation, cropping patterns and irrigation water management. For this reason, the project uses adaptive management to refine strategies as new information becomes available.

Adaptive management will be guided by:

- Weekly analysis of scouting reports

- Adjustments to thresholds based on observed pest trends
- Introduction of new resistant varieties or biopesticides in response to pest shifts
- Revision of pesticide selection lists when regulations change
- Updating training modules to address gaps identified during monitoring
- Strengthening enforcement when unsafe practices are repeatedly observed

This approach maintains relevance and ensures the Integrated Pest Management Plan remains effective under evolving conditions.

### 8.7 Budget Requirements for Monitoring and Evaluation

Implementation of the monitoring system requires targeted resources. These costs enable training, field verification, and proper storage and disposal of pesticides.

The budget will cover:

- Training and refresher courses for farmers and block scouts
- Printing of field forms, record sheets and monitoring tools
- Protective clothing for field inspections
- Transport costs for district and provincial verification visits
- Maintenance of pesticide stores, signage and disposal pits
- Annual review meetings and documentation

A detailed costed budget will be prepared at district and provincial levels based on the scale of irrigation schemes.

## 9.0 IMPLEMENTATION ARRANGEMENTS

Effective implementation of the Integrated Pest Management Plan requires clear roles, reliable coordination mechanisms, strong institutional backing and continuous engagement with farmers. Because the project operates primarily in irrigation schemes and Village Business Units, implementation must be practical, decentralised and closely integrated with existing agricultural support systems. This chapter outlines the institutional arrangements that will guide Integrated Pest Management execution at community, district, provincial and national levels.

The arrangement follows a cascading structure that begins with farmers and local committees and extends upward to regulatory agencies and project management units. This ensures that all activities, from pest scouting to pesticide regulation, are coordinated and consistent across all supported schemes.

### 9.1 Institutional Roles and Responsibilities

Integrated Pest Management implementation depends on a well defined distribution of responsibilities. Each institution plays a distinctive role that contributes to safe, effective and sustainable pest management.

**Farmers** Below is a structured description of roles, followed by a summary table for quick reference (**Table 5**).

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 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 ARID-PPU specialists for diagnosis and threshold guidance

### **ARID-PPU 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 ARID-PPU and EMA
- Reviewing provincial Integrated Pest Management reports and approving action plans
- Leading periodic safeguard compliance audits

*Table 5: Summary of Implementation Responsibilities*

<b>Actor</b>	<b>Key Responsibilities</b>
<b>Farmers members</b>	Scouting, preventive Integrated Pest Management, safe pesticide use, reporting
<b>Irrigation Management Committees</b>	Synchronised planting, storage management, disposal oversight
<b>Extension Officers</b>	Technical support, monthly monitoring, reporting
<b>ARID-PPU Specialists</b>	Diagnostics, thresholds, technical backstopping
<b>EMA</b>	Compliance inspections, disposal regulation
<b>District and Provincial Teams</b>	Oversight, data consolidation, planning
<b>PMU</b>	Strategic oversight, budgeting, safeguards compliance

While the legal and institutional mandates governing pesticide management in Zimbabwe are well established, effective implementation of this IPMP requires an assessment of whether responsible institutions at national, provincial and scheme levels possess adequate technical, staffing and enforcement capacity. **Table 6** summarises identified institutional capacity gaps and the corresponding strengthening measures required to ensure effective implementation and monitoring of the IPMP.

*Table 6: Institutional Capacity Gap Assessment and Strengthening Measures for IPMP Implementation*

<b>Institution</b>	<b>Mandate under IPMP</b>	<b>Identified Capacity Gaps</b>	<b>Implications for IPMP Implementation</b>	<b>Capacity Strengthening Measures</b>	<b>Responsible Lead</b>	<b>Timeline</b>
Department of Research and Specialist Services ( ARID-PPU) – Pesticide Registration Office	Pesticide registration, regulation, inspections, enforcement	Limited inspector coverage relative to geographic spread; constrained routine outlet inspections; limited rapid field verification in remote irrigation areas	Increased risk of expired, counterfeit or unregistered pesticides entering scheme-level supply chains; weak enforcement consistency	Joint quarterly inspections with EMA and district teams; refresher training for inspectors on IPMP-specific compliance checklist; strengthen reporting link between schemes and ARID-PPU	ARID-PPU Head Office	Within 6 months and ongoing
Environmental Management Agency (EMA)	Regulation of hazardous substances, pollution control, enforcement of storage standards	Competing mandates reduce frequency of pesticide-specific inspections; limited routine follow-up at scheme level	Weak enforcement of storage, disposal and contamination prevention measures	Integrate IPMP compliance checklist into EMA routine district inspections; establish joint monitoring calendar with SACP districts	EMA Provincial Offices	Within 6 months
AGRITEX (Extension Services)	Farmer training, pest scouting, threshold guidance, monitoring	High farmer-to-extension ratios; limited refresher training on emerging pests and resistance management; transport/logistics constraints	Inconsistent farmer follow-up; reactive spraying rather than threshold-based decision-making	Tailored IPM refresher training modules; structured seasonal scouting schedules; simplified monitoring templates integrated into routine visits	AGRITEX District Offices	Annually before main season
Irrigation Management Committees (IMCs)	Scheme-level governance, enforcement of by-laws	Weak enforcement of storage rules; absence of structured pesticide registers; limited awareness of regulatory	Home storage of pesticides; poor record keeping; child exposure risks	Develop simple pesticide storage register template; mandatory scheme by-law on no-home storage; annual IMC orientation on	SACP PPIU & AGRITEX	Pre-season annually

<b>Institution</b>	<b>Mandate under IPMP</b>	<b>Identified Capacity Gaps</b>	<b>Implications for IPMP Implementation</b>	<b>Capacity Strengthening Measures</b>	<b>Responsible Lead</b>	<b>Timeline</b>
		responsibilities		pesticide safety governance		
Agro-dealers	Sale and advisory services on pesticides	Uneven technical knowledge; limited structured training; inconsistent guidance on label interpretation and expiry checks	Farmers purchase inappropriate or expired products; misuse and financial loss	Annual agro-dealer IPMP compliance workshop; promote requirement for at least one technically trained staff per outlet; joint inspections with ARID-PPU	ARID-PPU & SACP District Team	Annually
District Health Facilities	Management of pesticide poisoning cases	Limited structured reporting linkage with agricultural authorities	Under-reporting of pesticide exposure cases; weak preventive feedback loop	Establish referral and reporting link between clinics and district agricultural offices; awareness training for scheme leaders on emergency response	District Health Office	Within 12 months
Scheme-Level Storage Infrastructure	Secure storage of pesticides	Absence of designated lockable facilities in some schemes	Household-level storage; increased risk to children and contamination	Construct or rehabilitate ventilated, lockable pesticide storage units at scheme level; hazard signage; inventory control system	SACP PMU & PPIU	Phased, within project cycle
Laboratory Diagnostic Support ( ARID-PPU/Plant Protection)	Pest confirmation and resistance analysis	Limited rapid diagnostic turnaround for emerging outbreaks; sample transport delays	Farmers spray blindly; accelerated resistance development	Develop district-level rapid escalation protocol; train extension staff in field diagnosis; annual pest resistance review workshop	ARID-PPU & AGRITEX	Annually

## 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 ARID-PPU, 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 ARID-PPU 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
- ARID-PPU 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 ARID-PPU 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 ARID-PPU
- 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 ARID-PPU, 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, ARID-PPU, 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 ( ARID-PPU, 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 7** below provides an annualised estimate supporting irrigation schemes

*Table 7: 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

<b>Budget Item</b>	<b>Description</b>	<b>Unit Cost (USD)</b>	<b>Quantity per Year</b>	<b>Total (USD)</b>
<b>Subsistence monitoring</b>	for 75 per officer per visit × 2 officers	150 per visit	48 visits	7,200
<b>Quarterly multisectoral inspections</b>	3 officers × 2 days × 75	450 per quarter	4 quarters	1,800
<b>Training of farmers</b>	50 farmers per session, venue, refreshments, materials	600 per training	6 trainings	3,600
<b>Training of extension officers &amp; committees</b>	District level technical sessions	1,200 per session	2 sessions	2,400
<b>PPE for farmers (gloves, masks, aprons)</b>	15 USD per set	200 farmers	3,000	
<b>Sprayer calibration kits</b>	Measuring cylinders, buckets, markers	150 per scheme	6 schemes	900
<b>Pest scouting kits</b>	Hand lenses, forms, stationery, traps	80 per kit	30 kits	2,400
<b>Pheromone and sticky traps</b>	For <i>Tuta absoluta</i> , whiteflies, fruit flies	300 per year	1	300
<b>Demonstration plots</b>	Seeds, biopesticides, markers	200 per plot	6 plots	1,200
<b>Construction of pesticide storage rooms</b>	Repair or upgrade	1,000 per room	2 rooms	2,000
<b>Construction of lined disposal pits</b>	500 per pit	6 pits	3,000	
<b>Printing of Integrated Pest Management materials</b>	Manuals, posters, scouting forms	1,200	Lump sum	1,200
<b>Annual Integrated Pest Management review meeting</b>	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 ARID-PPU 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, ARID-PPU, 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 ARID-PPU, EMA, AGRITEX and veterinary departments should be institutionalised.

### **Increase Support for Biological and Preventive Measures**

Biological controls, certified seed, resistant varieties, crop rotations, intercropping, sanitation and water management practices must be scaled up to reduce reliance on chemical pesticides, especially in horticulture and irrigated maize.

### **Invest in Continuous Capacity Building**

Training should be ongoing and adapted to seasonal challenges. Farmer field schools, demonstration plots and refresher courses for extension officers will help sustain adoption of best practices.

### **Ensure Safe and Responsible Pesticide Use**

Only registered pesticides should be used, and Highly Hazardous Pesticides must remain prohibited. Clear guidance on mixing, application, PPE use, pre-harvest intervals and container disposal is essential to protect farmers and consumers.

### **Maintain Strong Monitoring and Enforcement**

District teams should prioritise monitoring Integrated Pest Management indicators, inspecting storage rooms, verifying disposal pits and ensuring compliance with national laws and AfDB/IFAD safeguards. Deviations should trigger immediate corrective action.

### **Promote Climate-Smart Pest Management**

Climate change is altering pest patterns in Zimbabwe. Integration of weather advisories, heat/stress management, tolerant varieties and improved irrigation scheduling must be prioritised to maintain sustainability and resilience.

### **Support Sustainability Through Local Ownership**

Embedding Integrated Pest Management rules in irrigation scheme by-laws, strengthening IMC, and ensuring farmer ownership of practices will promote sustainability during and beyond the project's lifespan.

### **Allocate Adequate Budget and Resources**

Reliable financing for monitoring, training, PPE, safe storage, disposal pits and demonstration materials is essential. Without sufficient resource commitment, Integrated Pest Management risks becoming fragmented and ineffective.

## BIBLIOGRAPHY

African Development Bank (AfDB) 2023, *Integrated Safeguards System: Operational Safeguard 3 – Biodiversity and Ecosystem Services*, African Development Bank Group, Abidjan.

Agricultural Research Council 2020, *Fall Armyworm Integrated Pest Management Guide for Africa*, ARC South Africa, Pretoria.

Environmental Management Agency (EMA) 2012, *Statutory Instrument 12 of 2007: Hazardous Substances, Pesticides and Toxic Substances Regulations*, Government of Zimbabwe, Harare.

FAO 2015, *International Code of Conduct on Pesticide Management*, Food and Agriculture Organization of the United Nations, Rome.

FAO 2017, *Guidance on Highly Hazardous Pesticides*, Food and Agriculture Organization of the United Nations, Rome.

FAO 2022, *Integrated Pest Management Guidelines for Smallholder Farmers*, FAO Plant Production and Protection Division, Rome.

FAO & WHO 2016, *Pesticide Residues in Food: Joint Report of the 2016 Joint FAO/WHO Meeting on Pesticide Residues (JMPR)*, FAO/WHO Joint Secretariat, Rome & Geneva.

Government of Zimbabwe 1971, *Fertilizers, Farm Feeds and Remedies Act [Chapter 18:12]*, Government Printer, Harare.

Government of Zimbabwe 2002, *Environmental Management Act [Chapter 20:27]*, Government Printer, Harare.

IFAD 2021, *Social, Environmental and Climate Assessment Procedures (SECAP) Guidelines*, International Fund for Agricultural Development, Rome.

IFAD 2020, *Guidelines for Preparing a Pest and Pesticide Management Plan*, International Fund for Agricultural Development, Rome.

Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) 2021, *National Plant Protection Strategy*, Government of Zimbabwe, Harare.

Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) 2022, *ARID-PPU Registered Pesticides List*, Department of Research and Specialist Services, Harare.

UNEP 2001, *Stockholm Convention on Persistent Organic Pollutants*, United Nations Environment Programme, Geneva.

UNEP & FAO 2010, *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*, Secretariat of the Rotterdam Convention, Geneva & Rome.

WHO 2020, *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification 2020*, World Health Organization, Geneva.

World Bank 2019, *Environmental, Health and Safety Guidelines: Annual Crop Production*,  
World Bank Group, Washington DC.

## *Appendix 1: 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 Central.

#### **2. African Stemborer**

*Busseola fusca*

A chronic problem in maize, particularly where crop residues are not destroyed.

#### **3. Pink Stemborer**

*Sesamia calamistis*

Common in warm irrigated zones and wetter field margins.

#### **4. Cutworms**

*Agrotis* spp

Observed during land preparation and early crop establishment.

#### **5. Leaf Miners**

*Liriomyza* spp

Affect tomatoes, beans and leafy vegetables, especially under irrigation.

#### **6. Aphids**

*Aphis* spp, *Rhopalosiphum maidis*, *Myzus persicae*

Occur on vegetables, maize, tobacco and horticultural crops.

#### **7. Whiteflies**

*Bemisia tabaci*

A key vector of viral diseases in tomatoes and leaf vegetables.

#### **8. Red Spider Mites**

*Tetranychus urticae*

Common under hot, dry irrigated conditions and in protected structures.

#### **9. Thrips**

*Thrips tabaci*

Affects onions, tomatoes and legumes.

### **B. HORTICULTURAL CROP PESTS**

#### **1. Tomato Leafminer**

*Tuta absoluta*

A high-risk pest in tomatoes grown in VBUs and gardens.

## **2. Fruit Flies**

*Bactrocera dorsalis*

A major pest in mangoes, cucurbits and tomatoes.

## **3. Diamondback Moth**

*Plutella xylostella*

Severe in cabbage and brassicas under irrigation.

## **4. Cutworms (Horticulture)**

*Agrotis ipsilon* and related spp

Damage seedbeds and newly transplanted seedlings.

## **5. Tomato Hornworm / Caterpillars**

*Helicoverpa armigera*

Persistent in irrigated tomato blocks.

## **6. Whiteflies and Greenflies**

*Bemisia tabaci* and *Aphis gossypii*

Cause sap-sucking and transmit viral diseases.

## **7. Powdery Mildew (Vector Interactions)**

*Erysiphe cichoracearum*

Though fungal, its management is linked to insect activity and humidity.

# **C. STORED GRAIN PESTS**

## **1. Maize Weevil**

*Sitophilus zeamais*

Widespread in household granaries and grain aggregation centers.

## **2. Larger Grain Borer**

*Prostephanus truncatus*

A destructive pest in warmer low-lying areas such as Muzarabani.

## **3. Flour Beetles**

*Tribolium castaneum*

Affects milled grain and stored pulses.

## **4. Bean Bruchids**

*Acanthoscelides obtectus*

Attack stored beans.

## D. INVASIVE OR EMERGING PESTS OF CONCERN

### 1. Fall Armyworm

*Spodoptera frugiperda*

Though naturalised, it remains an invasive threat.

### 2. Tomato Leafminer

*Tuta absoluta*

Continues to spread and develop pesticide resistance.

### 3. Larger Grain Borer

*Prostephanus truncatus*

Increasing presence in warm lowveld zones.

### 4. Desert Locust (Regional monitoring importance)

*Schistocerca gregaria*

Not currently present but monitored due to regional outbreaks.

## F. SUMMARY TABLE OF PRIORITY PESTS

Category	Key Pests	Scientific Names
<b>Field crops</b>	Fall armyworm, stemborers, cutworms, aphids	<i>Spodoptera frugiperda</i> , <i>Busseola fusca</i> , <i>Agrotis</i> spp, <i>Aphis</i> spp
<b>Horticulture</b>	<i>Tuta absoluta</i> , whiteflies, fruit flies, DBM	<i>Tuta absoluta</i> , <i>Bemisia tabaci</i> , <i>Bactrocera dorsalis</i> , <i>Plutella xylostella</i>
<b>Stored grain</b>	Maize weevil, LGB, bruchids	<i>Sitophilus zeamais</i> , <i>Prostephanus truncatus</i> , <i>Acanthoscelides obtectus</i>
<b>Emerging pests</b>	Fall armyworm, <i>Tuta absoluta</i>	As listed above

## APPENDIX 2: 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
<b>Aldicarb</b>	WHO Class Ia	Highly toxic; groundwater contamination
<b>Aldrin</b>	Stockholm Convention	Persistent organic pollutant (POP)
<b>Camphechlor (Toxaphene)</b>	Stockholm Convention	POP, banned globally
<b>Chlordane</b>	POP	Long-term soil and water contamination
<b>Dieldrin</b>	POP	Bioaccumulation and extreme toxicity
<b>Endrin</b>	POP	Very persistent and carcinogenic
<b>Heptachlor</b>	POP	Banned for agricultural use
<b>Lindane (Gamma-HCH)</b>	POP	Endocrine disruptor; persistent pollutant
<b>Parathion (ethyl and methyl)</b>	WHO Ia/Ib	Extremely hazardous
<b>Methyl bromide</b>	Ozone Depleting	Banned except for critical uses
<b>Mercury-based fungicides</b>	Highly Hazardous	Toxic to humans and aquatic life
<b>Monocrotophos</b>	Class Ib	Very harmful to birds and farmers
<b>Phorate</b>	Class Ia	Highly systemic toxin
<b>Phosphamidon</b>	Class Ia	Neurotoxic
<b>Methamidophos</b>	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
<b>Carbofuran</b>	Highly toxic; improper use by farmers
<b>Diazinon</b>	Hazardous around water bodies
<b>Fenamiphos</b>	Soil and groundwater contamination
<b>Methomyl</b>	Acute toxicity to humans
<b>Endosulfan</b>	Banned in Zimbabwe (2012)

### C. PESTICIDES NOT ALLOWED NEAR WATER BODIES

Because irrigation schemes operate next to canals, drains and reservoirs, the following pesticides are **prohibited** due to high aquatic toxicity:

Active Ingredient	Reason
Cypermethrin	Highly toxic to fish and aquatic insects
Lambda-cyhalothrin	Persistence in sediment
Deltamethrin	Kills beneficial aquatic organisms
Chlorpyrifos	High toxicity; drift risk
Profenofos	Strong effect on aquatic invertebrates

Biological options are preferred in these zones.

#### **D. RESTRICTED USE IN IRRIGATION SCHEMES (Allowed Only Under Strict Guidance)**

These pesticides are **not banned**, but due to misuse risks, the project will allow them only when:

- thresholds are reached
- correct PPE is available
- extension officers supervise
- proper disposal procedures are followed

Active Ingredient	Notes
<b>Imidacloprid</b>	Allowed only in seed treatment; harmful to bees
<b>Acetamiprid</b>	Lower risk but requires controlled use
<b>Mancozeb</b>	Avoid use near wetlands; follow re-entry intervals
<b>Metalaxyl</b>	Must follow label rates to avoid resistance
<b>Permethrin</b>	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
<b>WHO Class Ia/ Ib</b>	<b>Prohibited</b>	Never to be procured or used
<b>POPs (Stockholm Convention)</b>	<b>Prohibited</b>	Persistent environmental toxins
<b>Highly toxic organophosphates</b>	<b>Prohibited</b>	Unsafe for farmers
<b>Synthetic pyrethroids near water</b>	<b>Restricted</b>	High aquatic toxicity
<b>Neonicotinoids</b>	<b>Restricted</b>	Bee protection required
<b>Copper fungicides</b>	<b>Allowed with caution</b>	Avoid buildup in soils
<b>Biopesticides</b>	<b>Fully allowed</b>	Preferred under Integrated Pest Management
<b>Neem/plant extracts</b>	<b>Fully allowed</b>	Safe and sustainable

## APPENDIX 3: PUBLIC CONSULTATION EVIDENCE

### Hwange Rural District Council minutes

Hwange Meeting with DDC 16/10/2015  
08:15 PM

#### Introduction

The DDC team was introduced and of brief background of RACP. That it builds up from RACP mainly to rehabilitate the irrigation scheme

#### Purpose

- \* Climate proofing
- \* Mitigation
- \* Solar powered irrigation
- \* Land and soil rehabilitation
- \* Market Survey

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

END 08:30

16/10/25

Meeting with Hwang RDC: 1233

~~Info~~ - Mr Mapani - 072 42 576  
Special Services

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

Purpose

- \* Value chain
- \* Water harvesting
- \* Additional sources of power
- \* Solar irrigation schemes
- \* Climate proofing

So RACP came up in for a courtesy call to the RDC CEO in Hwang.

Questionnaires were distributed and to follow up with Mr Mapani on their responses

Lupane Rural District Council minutes

12/10/25

Meeting with Lupane RDC 12:00pm

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

Main purpose

schedule meeting

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

RACP will be supporting the EACP project. ERDC is to come up with an ESMP to kick start the project. The ESMP is required by the banks so that they can release money with confidence on the environmental side.

- \* The budget will estimate

pw's

LUPANE RDC

Tortoise

\* Change was proposed as one of the schemes to be rehabilitated in Lupane.

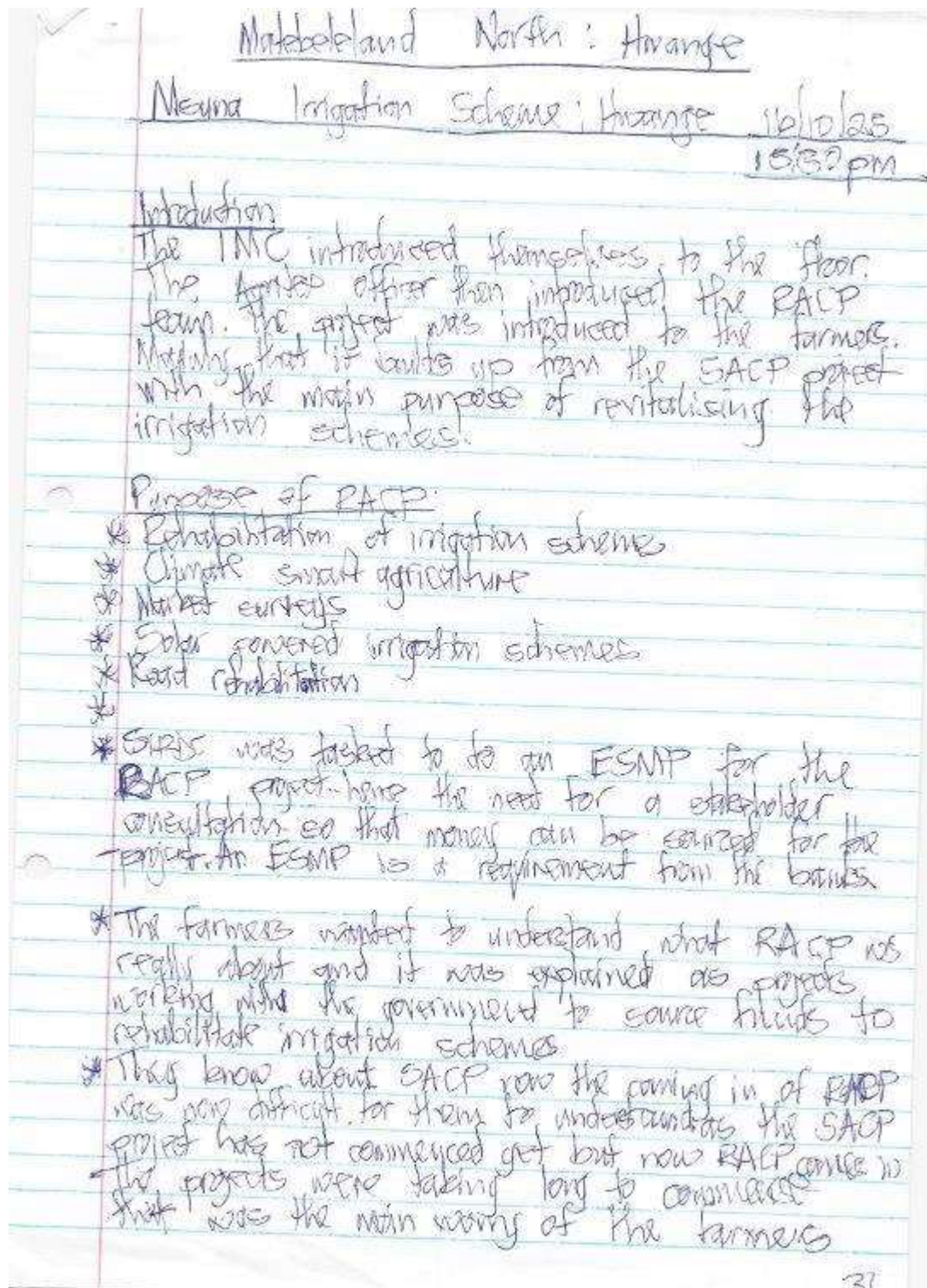
\* So many projects have come and gone but the main problem of sanitation has not been addressed.

\* RDC team stressed that dam situation was the main cause of concern.

\* They also expect gender mainstreaming particularly looking at the development of the community.

\* The youth and people with ~~devel~~ disabilities should also be included.

12:26pm.



### \* Concerns & Expectations

- pipes & sprinklers, pumps
- fence is needed around the fence as sometimes hippos come in and destroy crops - if possible make fence
- More pipes are needed so that water is always available even when water is low
- Water reservoir is needed at the scheme
- Storage room which is much cheaper to maintain the strong winds from the Zambezi river
- Tractors are needed in the fields only one is available
- A shack is needed for meetings
- Motorised ploughs or harrows are needed
- Equipment to stack grade seeds from the remains of the crops after harvest
- Dams are squandering money in the names of schemes but at the end the money does not benefit them. It happens that money should be channelled to the impoverished areas account

### Benefits

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

### \* Concerns continued

- local labour should be paid for
- People should get enough explanation when construction workers come in whether they are working for money or for free

- \* Social ill<sup>s</sup> may become rampant by the coming in of construction workers.
- \* The local people should be trained on technical work eg plumbing, fence installers etc as to avoid taking people from outside.
- \* Need for a first aid kit / facilities in the scheme in case of emergencies.
- \* The farmers are now staggering farming as the control loss can not cater for ~~at~~ the whole farm.
- \* The construction consultants coming in to work or do pieces should be introduced to the farmers and agree on the scope & TORs with the farmers.
- \* No markets for produce especially maize.

## Matabeleland North

Tshongokwe Irrigation Scheme: Lunene 17/10/25, 12:50pm

### Intro

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

### Purpose of the Project

- \* To revitalise irrigation schemes by:
  - \* restoring land and water sources
  - \* installing solar powered irrigation schemes
  - \* introducing climate-smart agriculture
  - \* sourcing markets for farm produce
  - \* promoting gender equity on the schemes
  - \* rehabilitation

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

### Concerns / Expectations of Farmers

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

ZH

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

### Benefits

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

### Concerns / Expectations, continued

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

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

→

End 13:52

Cardinales Tshangokuze

0561487

7935766

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## Lukosi Irrigation Scheme minutes

Matibeleland North

Lukosi Irrigation Scheme: Hwange 16/10/25 10:20am

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

Purpose

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

Concerns and Expectations

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

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

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

### Concerns in order of priority

- ① Boundary fence
- ② Boreholes
- ③ Canals
- ④ Siphons
- ⑤ Pumph tablets
- ⑥ Warehouse for storage
- ⑦ Inputs
- ⑧ Dam scooping

### Benefits

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

Meeting ended at 12pm.

Hwange DDC meeting register

### CP Activity Registration form

Date: 16/01/2025 Name of Activity: DDC Courtesy Call APG  VBU  MSE  VCLE  Irr Scheme

Name of the APG/VBU/MSE/VCLE/Irr Scheme: Hwange District: Hwange Ward: DDC's office Venue: DDC's office

Activity Reference # as per AWPB: \_\_\_\_\_ Topics/Modules Covered: \_\_\_\_\_

National ID of HH registered in the project (Household Identifier number) (00-000000A00)	First Name of Participant	Surname	Gender (M/F)	Year of Birth	National ID of person participating in the activity (00-000000A00)	PWD (Y/N)	Gender of Household (M/F/H)	Contact Number	Signature of Participant
02-01866600	SIMON	MULEYA	M	1963	DDC 02-01866602	N	M/H/H	07225001	[Signature]
03-11846605	SIMON	KITHEM	M	1981	DDC 03-11846605	N	M/H/H	07554970	[Signature]
04-13846605	MTHANZO	MURATA	F	1986	DDC 04-13846605	N	M/H/H	07225001	[Signature]
58-20566000	TANDIHO	CHIRATA	M	1981	AgriTEX 58-20566000	N	M/H/H	0773712	[Signature]
05-17536000	RAHMANO	MANKHANI	M	1981	SIRP 05-17536000	N	M/H/H	0773712	[Signature]
AGRI TEX	BEATRICE	PANGANYA	F	1985	04-10857001	N	W/H/H	07225001	[Signature]
7-02237000	SHANISO	MURATA	F	1981	SIRP 7-02237000	N		0773712	[Signature]
72-10300000	ARBERI	HEURBE	M	1981	SACP	N		0775405811	[Signature]
3-01855000	Kheswe	Ucube	F	1962				07225001	[Signature]

Msuna meeting register

STAKEHOLDER CONSULTATION REGISTER- IFAD (RACP)

District: Amvange Date: 16/10/2015 Venue: Msuna Irrigation Scheme

Name and Surname	Physical Address	Contact Number	ID Number	Gender	Signature
1 Oliver Nyoni	Msuna Resort	0779 089 803	79-071510-5-79	M	[Signature]
2 Sonzen Muzamba	Msuna Resort	0756878459	79-0873264-79	F	[Signature]
3 Liza Ndlovu	Msuna Resort	0772264306	79-106231-11-79	F	[Signature]
4 PHEEN Nkwanya	Msuna Resort	0771613999	79-142219 J-99	F	[Signature]
5 Fanikiso Nkwanya	Msuna Resort	0771614004	79-079031679	F	[Signature]
6 Lambino Munkuli	Msuna Resort	0114137576	79-111617-M79	F	[Signature]
7 Virginia Sibanda	Msuna Resort	0776998795	79-037257-L79	F	[Signature]
8 Emwinye Muzaka	Msuna Resort	0784258959	79-126411-S-79	F	[Signature]
9 Lucia Muziga	Msuna Resort	0771731304	79-071676-V-79	F	[Signature]
10 Zandwe Nyathi	Msuna Resort	0776104920	79-078921y304	F	[Signature]
11 Mernang Nwazi	Msuna Resort	0776097437	79-065130-904	F	[Signature]
12 Mavis Mkhwazi	Msuna Resort		06-415240215	F	[Signature]
13 Luzani Mumpande	Msuna Resort	0776627735	79-102078-0-06	F	[Signature]
14 Mkhondro Mumpande	Msuna Resort	0771683469	79-142311A-79	F	[Signature]
15 Muzwe Nyoni	Msuna Resort	0771731256	79-087326-79	F	[Signature]
16 Josie Gama	Msuna Resort	0759435781	79-142404-N79	F	[Signature]
17 Ch. Christina Shoko	Msuna Resort	0751457664	79-	F	[Signature]

Tshongokwe meeting register

17/10/25 Mt North: (Tshongokwe Inga) Scheme: Lupane District  
R.5pm

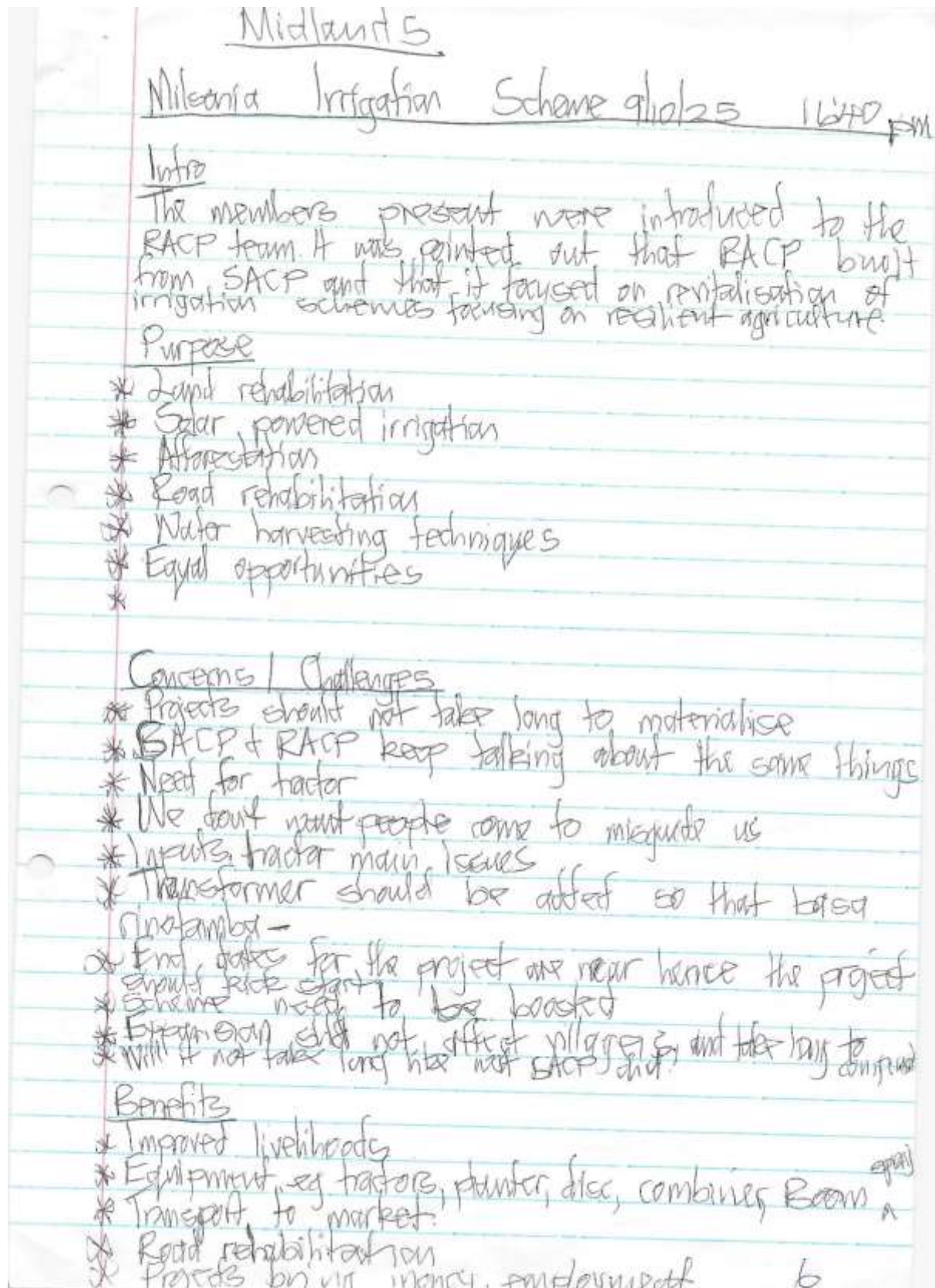
	Name and Surname	DEPARTMENT/ WARD	Physical Address & contact number	Gender and Designation	Signature
7	Sushobhane Ndlovu	08	0719698263	F	S. Ndlovu
	Sikhumbuzo Nyongu	08	0782234943	F	S. Nyongu
8	Norah Nyoni	08	0792112337	F	N. Nyoni
	Ephokhane Lephaha	08	0711071053	F	Ephokhane
9	Nontlanta Mbhele	08	0789355597	F	N. Mbhele
	Sittaroleni Miso	08	0778278246	F	Miso
10	Milena Ndlovu	08	0775568185	F	M. Ndlovu
	Aissa Mabe	08	0779013030	f	A. Mabe
11	Inanekia Moseu	08	0774349060	F	T. Moseu
	Siphumandla Ntshona	08	0789067365	f	S. Ntshona
12	Ndlovu Aizab	08		F	A. Ndlovu
	Haliry Magagule	08	077732288	F	H. Magagule
13	Cecilia Ndlovu	08	0753861524	F	C. Ndlovu
	Gondys Masoko	08	0779075780	F	G. Masoko
14	Nomasiko Ndlovu	08	0777077896	F	N. Ndlovu
	Hilaloh Kumalo	08	0786014070	F	H. Kumalo

Name	Surname	Ward	Phone number	Gender	Signature
Ryno	Makoto	Sobadale	077581502	M	R. Makoto
Cletrude	Nyonyo	Sobadale	0785717708	F	C. Nyonyo
Sikhumbuzo	Moyo	Sobadale	0779124348	F	S. Moyo
Thembelile	Ncube	Sobadale	0776525362	F	T. Ncube
Siphemari	Khumalo	"	0759280491	F	S. Khumalo
Colleen	Mphahlele	"	0777703090	F	C. Mphahlele
Trabani	Sibanda	"	0754229534	M	T. Sibanda
Oziya	Ncube	"	0773702377	M	O. Ncube
Raphiel	Nyonyo	"	0778426426	M	R. Nyonyo
CHRISTOPHER	Moyo	8	077596072	M	C. Moyo
V. Khumalo		8	0772011011	M	V. Khumalo
Nelisa	Ndlovu	8	0782630161	M	N. Ndlovu
Michael	Nyonyo	8	0779383656	M	M. Nyonyo
Nervis	Ncube	8	0779238326	F	N. Ncube

Lukosi meeting register

Lukosi Irrigation  
Meeting, 16/10/25

Name	I.D Number	Sex	Contact	Sign
Beauty Sibanda	79-106074-M-79	F	0777637079	B Sibanda
RITA Mpala	79-003126 M79	F	0778894562	R Mpala
TALIA NYONI	79-0120534-79	M	0773939093	T NYONI
Arenita Nyoni	79-099647-B-79	F	077375848	A Nyoni
Jenet Tshuma	79-011464-A-79	F		J Tshuma
Jacqueline Nyoni	79-123985-F-79	F	077954940	J Nyoni
Yvoni Shoko	79-149543-L-79	F	0784603290	Y Shoko
Veronica Zulu	79-014264-N-79	F	0784110613	V Zulu
IRENE Sibanda	79-005049-C-79	F	0779928473	I Sibanda
Patricia Nyoni	79-018621-E-79	F	0778816322	P Nyoni
Dobi Sibanda	-		0777754169	D Sibanda
Sesiwu Mupande	79-			S Mupande
Ottilia Sibanda	79-009218J-79	F	0785638379	O Sibanda
CHRISTINE DUBE	79-093166-G-79	F	0787320298-79	C Dube
NORAZI GAMBARI	18-119620J48	F	0785378561	N Gambari
Kwenzani Shoko	79-1095444-79	F	0776277531	K Shoko
Ketiwe Nyoni	79-063231-T-79	F	0785408505	K Nyoni
Tibulisa Sibanda	79-0500924-N-79	F	077693294	T Sibanda
TINA CHANGE	79-017378-D-79	F	0771600318	T Change
ESNAT Tshuma	79-102307-M-79	F	077226283	E Tshuma
Diana Zimbazi	79-2003K-58	F	0783956896	D Zimba
Beauty Munsaka	79-140948-T-79	F	0786154362	B Munsaka
Benite Munsaka	79-142227-J-79	F	0776097560	B Munsaka
Speziwe Mpala	24-093671403	F	0772364624	S Mpala
ANGELA NYONI	79-078801-H-79	F	0774964845	A Nyoni
Khesiwe Nele	73-018255-S-75	F	0773565312	K Nele



\* RACP & ARDA should come together and address farmers.

\* Expansion needed.

\* Markets - GMS in the long run value addition.

1733 pm

Community Meeting Register for Milsonia Irrigation Scheme.

Milsonia Irrigation Scheme 9/10/25 16/42				
Name & Surname	Village/Ward	Phone No	Gender	Signature
Tembo P	1	0773466001	F	
Musina Ignatius	7	0775938095	M	
FANUEL CHINEMBEI	3	0778025160	M	
Zingon J Hungwe	6	0781543834	M	
JESPA MWEEMBA	6	0783400682	M	
SAMOS VACANWAZI	3	0775591563	M	
Mthandazo Gumbi	5	0785353516	M	
Jeremia Hungwe	2	078518368	M	
Jonathan Zinyama	4	0782393347	M	
Immanuel Sibanda	3	0776327850	M	
MILLION KUBOMBO	6	0771879400	M	
REUBEN ZHARO	7	0786107338	M	
DIVID MBAMB	7	0777945686	M	
DANIEL Moyo	6	0782922675	M	
TRUST BHOWANI	7	0778203681	M	
Patrick Ndele	4	0776192728	M	
WOLAPABI BHOWANI	7	0786499580	M	
Bhekubhule Nyoni	6	0779308303	M	
Simbarashe Kufirisa	6	0780445129	M	
KUTIPATI KUDWAZA	6	0777157100	M	
Vengai Nganda	9	07849046	M	
Simbisa MUTHIWA	6	0782153230	F	
Simbarashe Mahlenyika	3	077409393	M	
Joyce Kasinamona	4	0779262905	F	
Catherine Sibanda	2	0776344516	F	
Sazole Fuzane	5	0784655126	F	
Esmaly Zinyama	4	0782995213	F	
Nadia Mluguti	5	0779713794	F	
Saline tube	5	0771005747	F	

## Sessombe Irrigation Scheme 1300 ha Midlands: Village 6

### Introduction

- \* Brief background of SIRIG and RACPI's mandate on climate smart agriculture. Mandate is to come up with an ESMP.

### Purpose

- \* Solar Irrigation System (Green Energy)
- \* Afforestation
- \* Road rehabilitation
- \* Market survey
- \* Equal opportunities (Women & Youths)
- \* Land reclamation

### Benefits

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

### Questions / concerns

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

- \* The project is taking time, no feedback, some men -  
   <sup>virtual effect</sup>
- \* Is there issue of entering farming which might  
   <sup>come up</sup>
- \* Is there displacements of nearby communities,
- \* Water may be limited
- \* Electricity might be there, but thieves may steal  
   <sup>equipment</sup>
- \* Farm yields may fall due to climate change
- \* Security of equipment should be decided by the  
   <sup>farmers</sup> <sup>Poisona</sup> <sup>bumbard</sup> <sup>remutemo</sup>
- \* Look for a permanent security personal.
- \* Social ills
- \* Drinking beer because of more money, more wives  
   <sup>disruptions</sup> <sup>of families</sup>
- \* Give each one a piece of land but be guided by  
   <sup>the Agency</sup> <sup>officers</sup> <sup>on what to plant.</sup>
- \* If possible each one should be given his piece of land, and  
   <sup>manage it themselves.</sup>

### Mitigation

- \* Restrict the construction workers to come into the  
   <sup>villages</sup>
- \* Use of bumbard remutemo (Constitution)

1420

## Community Meeting Register for Sessombe Irrigation Scheme

### Stakeholder Consultation Register - IFAD (RACP)

District: MIDLANDS ~~Machobane West~~ : Date 08/10/25 VENUE: Sessombe Irrig. Scheme

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	Sibomjile Singe	Sessombi	Village 6 irrigation	f	Singe
2	Letwin Masinywa	Sessombi	Village 6	f	L Masinywa
3	Rumbidzayi Mapipi	Sessombi	Village 6	f	R. Mapipi
4	Patricia Terer	Sessombi	Village 6	f	P Terer
5	Sipiwe Mtjoni	Sessombi Mtjoni	Village 6	f	S Mtjoni
6	Nolia Mayo	Sessombi	Village 6	f	N Mayo

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	Ever Moyo	Sessombi	Village 6 0779309357	Female	
8	NICKLAE Mangisi	Sessombi	Village 6 0787350944	Female	N mangisi
9	Sekai Jerera	Sessombi	Village 6 0779420927	Female	S J
10	Lizus Mumbwari	Sessombi	Village 6 0774248298	Female	L Mumbwari
11	Sharon Moyo	Sessombi	Village 6 0799995719	Female	S Moyo
12	Rejice Sibanda	Sessombi	Village 0745318085	Female	R. Sibanda
13	Janet Mumbwari	Sessombi	Village 6 071351832	Female	J Mumbwari
14	Eunet Mumbwari	Sessombi	Village 6 0785591515	Female	

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	Alfa Moyo	Sessombi	village 6 078907559	female	N. Moyo
16	Mapedzambwe Baba	Sessombi	village 6 0785436520	female	Baba
17	Cecilia Nyoni	Sessombi	Village 6 0779021818	F,	Nyoni
18	Mitheck Sabwika	Sessombi	Vy 6	M	Sabwika
19	Milton Bwame	Sessombi	Village 6	M	Bwame
20	Mukheri Panganyu	Sessombi	village 6	M	Mukheri
21	Witness Nyoni		077496262		w. ni.

Orias Dzingayi Sossani Village 6

M

Dzungayi

Calvin MAKERERE V 6

M

~~Calvin~~

Tasodzwa Munjany Sossoni V 6

M

~~Tasodzwa~~

WALTER Nyoni V 6

M

~~Walter~~

Geokje Munjanyat 6

M

~~Geokje~~

Dhlanini Jabulani V 6

M

~~Dhlanini~~

Machela JOHN V 6

M

~~Machela~~

Mathew Makitere V 6

F

~~Mathew~~

Enita Muchera V 6

F

~~Enita~~

Stine Nyoni V 6

F

~~Stine~~

Chipso Machelel V 6

F

~~Chipso~~

0183513999

## Sessombe Irrigation Scheme 1500 haus Midlands: Village 6

### Introduction

- \* Brief background of SIRSC and RACPI's mandate on climate smart agriculture. Mandate is to come up with an ESMP.

### Purpose

- \* Solar Irrigation System (Green Energy)
- \* Afforestation
- \* Road rehabilitation
- \* Market survey
- \* Equal opportunities (Women & Youth)
- \* Land reclamation

### Benefits

- \* Employment creation
- \* Ready markets for produce
- \* Food security
- \* Improved livelihoods
- \* Peace and tranquillity in the families

### Questions / concerns

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

- \* The project is taking time, no feedback <sup>some may</sup> ~~actual effect~~
- \* Is there issue of cartoching farming which might come up
- \* Is there displacements of nearby communities
- \* Water may be limited
- \* Electricity might be there, but thieves may steal equipment
- \* Farm yields may fail due to climate change
- \* Security of equipment should be decided by the farmers. Poised bumbiro remunera
- \* Look for a permanent security personnel.
- \* Social ills
- \* Drinking beer because of more money, more wives
- \* ~~disruption~~ of families
- \* Give each one a piece of land but be guided by the Agric. officers on what to plant.
- \* If possible each one should be given his piece of land, and marriage if ~~frustrated~~

### Mitigation

- \* Restrict the construction workers to come into the villages
- \* Use of bumbiro remunera (Constitution)

14/20

## Community Meeting Minutes for Wozoli Irrigation Scheme

Midlands Province: KwaZulu

Wozoli Irrigation Scheme: 06/10/25 10am

### Background

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

### Purpose

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

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

### Benefits

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

### Concerns / Expectations

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

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

### Mitigation Measures

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

Machine used at work

Community Meeting Register for Wozoli Irrigation Scheme

Wozoli Irrigation Scheme 08/10/25 10:00 AM				
Name	Ward Address	Phone No	ID No	Signature
S. Muzanzi	Harare	0778 334 565	71-092670015	[Signature]
MATASA M	WHzoli	0771890045	58-144173ms	[Signature]
PHILIP SHUMBA	"	0781168439	58-05930248	[Signature]
ROBERT NKOMO	"	0774521532	58-034880	[Signature]
MUKAYI MUNDIWA	WHzoli	0774349219	58041662W58	[Signature]
KWASIRI CHIEDA	AGRITEX	0773742876	77-01847007	[Signature]
Mable Muryanga	"	0773966161	58-19283458	[Signature]
Cesina Sibanda	"	0777997965	58-05341145	[Signature]
Thobabile Beni	"	0773811350	58-155519V58	[Signature]
Alexander Shumba	"	0785005398	58-089503M58	[Signature]
FARAH MATEWA	"	0773165252	75-068183 A38	[Signature]
Tsepa Sibanda	Buziwe	0788394197	58,23021158	[Signature]
GRALE AFIKI	"	0775602908	29-102714J58	[Signature]
Nester Moyo	"	0766775980	29-244960229	[Signature]
Faurete Mawa	"	0779262983	58-25482X58	[Signature]
Eul Shumba	"	0785863962	-	[Signature]
JAMES Bairamwa	"	0784694916	24-128078T24	[Signature]
Zunkwe Pangina	AGRITEX	0776357746	27-14839107	[Signature]
Philip Toiendepe	WHzoli	0782834969	58-203040058	[Signature]
Samna Sizba	"	0787620777	58-3600D58	[Signature]
Chawona Banda	WHzoli	0775537490	32-064669A58	[Signature]
Naume Siziba	WHzoli	0788900318	29-252800W58	[Signature]
Sephias mafuta	WHzoli	0788781067	04-07034404	[Signature]



MIDLANDS  
SENKWASI IRRIGATION SCHEME 09/10/25 08:30 AM

Introduction

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

Expectation and Benefits

1. The use of solar to abstract water will be useful and it also reduces electricity costs
2. A reliable night storage of water can also be useful and irrigation at it the evening reducing water loss
3. The farmers also mentioned that it can also be beneficial to grow fruit trees instead of just growing general trees
4. Solar with engine a reliable supply of water preventing queues for irrigation
5. Availability of water in storage tanks or dams, may also mean aquaculture is feasible.
6. If realised, it means we are also able improve our livelihoods e.g. pay fees and support surrounding communities with food and work
7. Our health will improve as we are to pay healthcare

## Challenges and Suggestions.

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

Mabruw 07

## Other Benefits

1. ~~But~~ We have become educated and that at household level my appreciation of things has changed.
2. Indirectly we benefit when we are able to pay school fees, also our children are expected to do better.
3. We also have shareable land, this is a form of arable land in greater scheme areas, which can be put to good use if water supply is fixed.
4. There is also idle land which needs rehabilitation for it to be used.
5. We also expect employment for our locals which also means issues as sexual immorality issues can abated.
6. Also Contractors need to be told to avoid general harassment from the community.

## Overall Comments

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

Community Meeting Register for Senkwasi Irrigation Scheme

SENKWASI	IRRIGATION	SCHEME	09/10/25
Name & Surname	Village / Ward	Phone Number	Gender
CHRISTOPHER RUTUMBU	MAKANYESI 9	0710719298	MALE
CEPHAS Ndaba	MAKANYESI 9	0775525423	MALE
CHRISTINA ZINGWE	MAKANYESI 9	0778279849	FEMALE
NOKHUTLA MOYO	MAKANYESI 9	0777495191	FEMALE
COLLET NCUBE	SITSHA 9	0779802503	MALE
MARIA MASEKO	CHYANGWA 9	0788177560	FEMALE
DAVID MOMBÉ	MACKENZIE 9	0773661056	MALE
HONZIMA MOYO	MAKANYESI 9	0778505587	FEMALE
THABANI NCUBE	MAKANYESI 9	0782994732	MALE
PATIENCE NKOVU	MUTHOLO 9	0782832003	FEMALE
TRESS TEREBE	MAKANYESI 9	0787398721	FEMALE
SMANGELO KHABO	MAKANYESI 9	0771073967	FEMALE
Rosemary Tom	MAKANYESI 9	0784241673	FEMALE
HENRY BAZARA	CHYANGWA 9	077735252	MALE
JITH NYWU	SIKHAKHAKA 9		F
Hluthi Ekisa Ncube	MASONI SITSHA 9	078369600	M
Junior Manyokhela	Majeni Sitsha 9	072735087	F
Caroline Munemo	AGRITEX 9	0783455832	F
Gracious Machingwe	AGRITEX 9	0785225544	F
TENDRO ZARIRO	AGRITEX	0773594139	F
Zodine Squire	Squire 9	078207332	F
RA. Submwa	CHR WLDG	0774440837	M
CHAMUNORWA KAURA	DISTRICT CHAIRMAN	0775037261	M

## Community Meeting Minutes for Igogo Irrigation Scheme

# 19060 IRRIGATION SCHEME (09/10/25)

## Introduction

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

## Challenges & Solutions

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

- ⑧ The community is prepared to work on the land.
- ⑨ The agritech officer has no accommodation close to the scheme, for them to be able to monitor irrigation activities.
- ⑩ Currently we crop summer wheat, but electricity to ensure the pump supply water, which may result in a loss. Therefore solar power is a priority to supplement.
- ⑪ The shed for storage and transportation of produce are a desperate need.
- ⑫ Due to market fluctuations and middle men, we usually end up selling crops at a loss just to get money to go buy cabbages.
- ⑬ Organisations such as AMA should come back to assist us to market and sell our produce including overseas.

### Expectations & Benefits

- ① Our livelihoods will improve, we will be to send our children to school.
- ② Transport will become available as there is traffic to the scheme.
- ③ Our health will improve.
- ④ We can also be able to employ

- ↙
- other community members.
- ⑤ As a community after we submit our complaints may we get feedback
  - ⑥ Complaints are also a challenge, we seek clarity, if we need to pay for them, let it be clear so we prepare accordingly.
  - ⑦ Our irrigation scheme roads need to be rehabilitated, so that even our tractor can move around without getting stuck
  - ⑧ If there is need to expand the irrigation, some of the surrounding plots are part of irrigation members, and were prepared to relocate.
  - ⑨ A challenge of sexual immorality may arise but if sufficient awareness campaigns may assist to reduce/avoid the impact.
  - ⑩ Employing the youth in the revitalisation activities or activities of irrigation may resolve of the dependency issues, and also mentoring the youth accordingly
  - ⑪ Also promote the use of irrigation proceeds to family matters.

Other issues,

- ① The location of pump house is not properly constructed.
- ② We need water that can be

↘

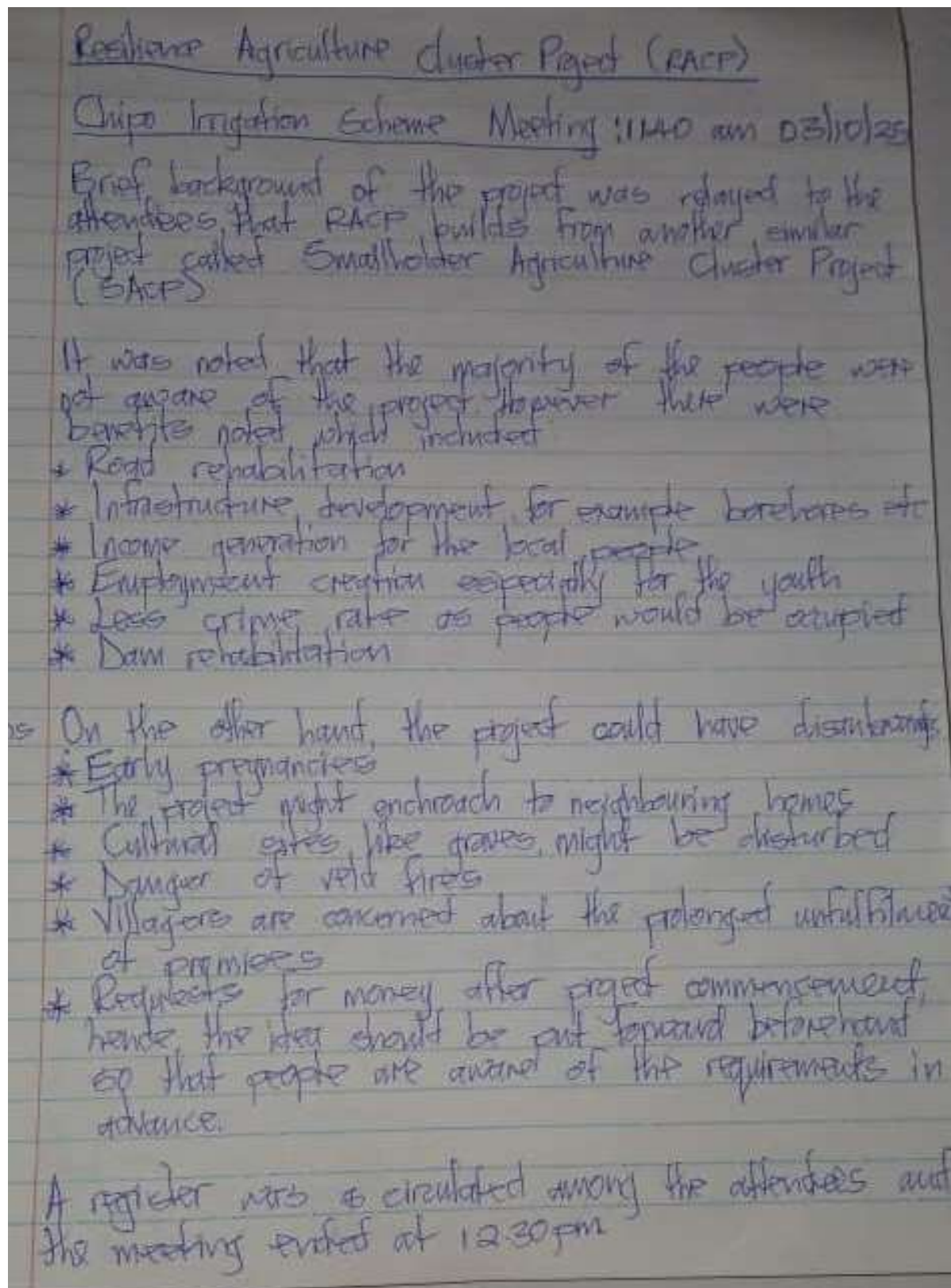
sage for drinking in field and  
our homes.

③ Our harvesting methods need to  
improve, as current methods  
are too manual.

Community Meeting Register for Igogo Irrigation Scheme

IGOGO IRRIGATION SCHEME (09/10/25) 1236					
Name & Surname	Village / Ward	Phone number	Gender	Signature	
AARON MUTAWO	V-1	30 0773873443	MALE	Aaron	
Sephias Ganyani	V-1	30 2782725002	Male	S.Ganyani	
Lost Ganyani	V-1	30 0728342104	Male	Lost	
S.DANIS ZIMATO	V-2	30 0779256607	MALE	S.Danis	
Terecia Zwicki	V-1	30 0715115632	Female	Terecia	
JANISCA Chikanga	V-2	30 07791810857	Female	J.Chikanga	
Gellie Mvugwe	V-1	30	Female	G.Mvugwe	
Mangizo Cuetu	V-1	30	Female	MANGIZO	
Scalistic Magwath	V-1	30 0715907805	Female	Magwath	
Agnes Muthuri	V-1	30	Female	Agnes	
Netseu Chingora	V1	30 0716638095	Female	Netseu	
Nehia Magida	V2	30 0710398219	Female	Mai gidi	
Phillipah Ruvade	V2		Female	Phillipah	
Bruce Mungilele	V2	30 0779285717	Male	Bruce	
VAISON Mabeera	V1	58-032229567	male	VAISON	
Batsirai Mashumba	V1	26-274151J26	Male	Batsirai	
EDWINICH MAMINI	V2	24-052394F26	FEMALE	Edwinich	
Idah Chikwenhu	V2		FEMALE	Idah	
Moddie Dinemu	V1	66-063372566	FEMALE	Moddie	
Edys Murenga	V1	58-181078B29	Female	Edys	
TAKALWESA MUDHURI	V1	0719775400	MALE	Mudhuri	
ALPHIUS Chankwira	V1	0782358958	MALE	Alphius	
JOSEPH Gumbaga	V4	0710719432	MALE	Joseph	
MAKARICHI Jonathan	V1	0778187353	MALE	Jonathan	
ANANIA MASHUMBA	V-1		MALE	Anania	
Msekiwa Ndombora	V2		MALE	Msekiwa	
Gracina Hira	V1	0717056024	MALE	Gracina	

## Chipo Irrigation Scheme Community Meeting Minutes



- \* Will people be working together as a group or will it be on individual basis
- \* People need clearance on how the project works.
- \* Cultural Norms and heritage should be respected

#### \* Other benefits

- \* Commercialisation of projects
- \* All year farming practices.
- \* Employment creation
- \* Improved houses
- \* Borehole drilling so that water will run continuously
- \*

#### \* Mitigation measures

- \* Find means to avoid encroaching into people's land
- \* Water to benefit everyone
- \* Respect cultural norms and values
- \*

- \* The villagers expected the project leaders on when the project commences
- \* The programs should not take long to be completed, people tend to lose interest on the project
- \* People are ready to start the project.



Community meeting register for Chipo Irrigation Scheme




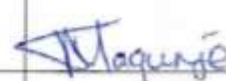


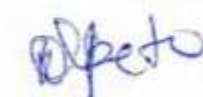

Chipo Irrigation Scheme - Mutoko

Stakeholder Consultation Register - IFAD (RACP)




District: Mutoko : Date 03/10/25 VENUE: Chipo Irrigation Scheme

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	MUGANYI NICHOLAS	Min of South	TABUMBA JTC Box 287 Mutoko	MALE	
2	KAUNJE ERBAH	FARMER	CHIDONGE VILLAGE 56 WARD 21	FEMALE	
3	Josephine Chikuri	FARMER	23 Ward 21	Female	
4	Definate Chikumba		23c Ward 21	female	
5	SAVADO SELINA		AGRITEX	Female	
6	DELIWE CHIKUMBA		23c WARD 21	Female	
	Senzeni Mugadya		23c - Ward 21	Female	
	JOSHUA ZAZA		53 WARD 21	MALE	
	GEORGE MADINHE		53 WARD 21	MALE	
	CHRISTOPHER KANONHEINGA		53 WARD 21	MALE	
	Maxwell Mungonyani		23c Ward 21	Male	

# Chipso Irrigation

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	Susan makasa	V 58	21		
8	LEVI E MABANGA	MVFDVT	TABUDIKIRA VTC	MALE	
9	Chapata K Timhona	Health Health	Tabudikira T/C Box 231 0774206552 Tabudikira	MALE Male	
10	C Nyadembere		etudowera	male	
11	T Magunje	Sec V-16	0775006966	Male	
12	K Chipere	Security	21	Male	
13	T Kuyeri	V 53	0778798514	MALE	
14	MAPE TO MANZWEI	SECURITY	TABUDIKIRA VTC 0773079805	MALE	
	Future Katabende	V-56	21	Female	

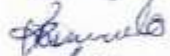
Chifo

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	GEORGE MARUMA		V. 23C ward 21	MALE	
16	THERESA MATHEMBA A		V 55 B 21	Female	Matumbura
17	Revai kudady		V 55 ward 21	Female	PK
18	TAFADWA CHAMBE		TABLIBIKIRA VTC BOX 281 MUTOKO	MALE	
19	Matron Sibanda		VII 23 A	Female	Makunda
20	Netsai Kadore		VII 23 A	Female	Netsai
21	RONICA NJANGUNI		VIII 56 ward 21	Female	

Kamwendo Rhodesia  
Shiro Reza  
Kovimere Meraki



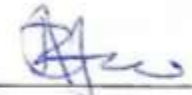




Shingirai Matematika.

V. 57 ward 21 M  
U 57 ward 21 M  
V 53 w. M  
V 55 ward 21 Female

  
~~SR~~  
Mwete,  
B-tai

### Stakeholder Consultation Register - IFAD (RACP)

District: Mutoko : Date 03/10/25 VENUE: Chigo Irrigation Scheme



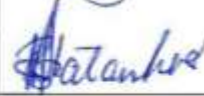

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	JOE LEWIS	TRUCK DRIVER	BOX 231 MUTOKO	Male	
2	Jeanette S. Kamukama	farmer	Box 231 Mutoko		
3	Abizent Muponda	Lecturer	POX 231 Mutoko	male	
4	Shungirai Matemateni	Farmer	Village 55	Female	
5	Future Katsande	Farmer	Village 56	Female	
6	TRENORWA PROSPER Bwanzwa Bwanzwa	Farmer	Village 23	MALU	
	Tadzezi Gondo	Farmer	Village 23B	Female	

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	Rurashhe Wallace	Farmer	Form 20	Female	R Wallace
8	Senzemi Makara	Farmer	Plot 36 ward 21	Female	S Makara
9	Joyce Chwawa	Farmer	Plot no 30	Female	rq
10	Rudo Kamoto	Farmer	Plot 8 vill 58	Female	R Kamoto
11	Rosalie Mudzima	Farmer	Plot 9 vill 63	Female	R Mudzima
12	Maria Mapingire	Farmer	Plot 7 V23	Female	em
13					
14					

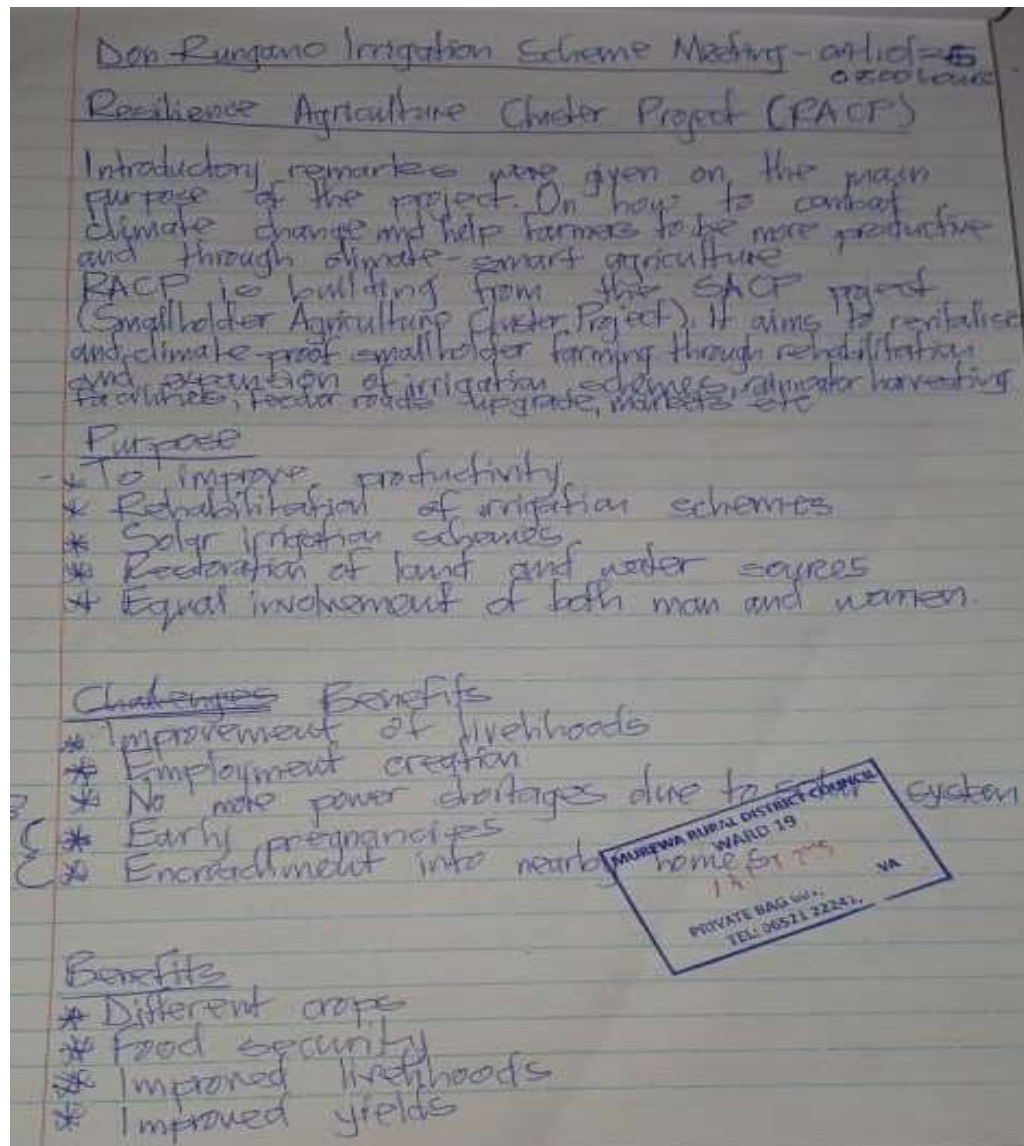
( I MC Mutoko )

Stakeholder Consultation Register - IFAD (RACP)

District: Mutoko : Date 13/10/25 VENUE: Chipo Irrig Scheme

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	Janet Botor	Village 22	0774557773	F	Janet
2	Collide Miquiti	Village 21	0772670083	F	
3	Tutsirai Kamjongo	Kem U. 22	0774720609	F	to.
4	Moses Chimbwanda	Village 22	0777940590	M	
5	Bernard Matankire	Village 22	0775572059	M	
6	Simbosyo Nhemachera	Village 22	0774557773	M	

## Don Rungano Irrigation Scheme Community Meeting Minutes



- \* Communication on MoE
- \* Inputs taken away from farmers
- \* New technology, eg centre pivots
- \* Market for the produce - ~~the~~ ~~market~~ is not reliable - Buyer determines the price - no security on market
- \* Early marriages
- \* Coming in of thieves
- \* Disruption of natural resources
- \* Good livelihoods may lead to fathers buying more slaves
- \* Help with labor fees to pay for the workers
- \* Corruption when produce is being sold
- \* Inputs may not be shared equally
- \* More food programs things are not distributed in an
- \* Inputs are not reaching the farmers on the designated time

### Mitigation Measures

- \* To curb corruption form/register should arrange the inputs
- \* More food programmes
- \* Grievance redress mechanism
- \* Farmers should be trusted with distribution of inputs as they are the main beneficiaries
- \* Inputs should come on time
- \* Fence should be installed to protect crops
- \* Ready markets for farmers after harvest

### Concerns continued




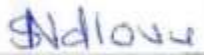


- \* Delays in payment of money after harvesting and distribution to GMB.
- \* Farms should not overreach to the maintenance

1:20 am Meeting ended.




Community meeting register for Don Rungano Irrigation Scheme





Stakeholder Consultation Register - IFAD (RACP)

District: Murehwa : Date 04/10/25 VENUE: Don Rungano Irrig Scheme

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	S Muzanzi	SIRBC	1574 Alps Rd Hatchiffe	Female	
2	S Zhungu		Dawn Rungano	Female	
3	Machhake		Dawn Rungano	Female	
4	S Ndlovu		Dawn Rungano	Female	
5	E Chidawu		Dawn Rungano	" "	
6	S Gwasira		DAWN RUNGANO	" "	

Don Rungano

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	KUDZAYI Chidewu		PLOT 3 DAWN Farm	Female	Chidewu
8	J Phiri		PLOT 2 DAWN Farm	Female	Phiri
9	C Zimunda		PLOT 2 DAWN Farm	Female	Zimunda
10	Quin Amos	Councilor	Plot 18 DAWN Farm	MALE	
11	STANLEY KATOGO		PLOT 3 DAWN	MALE	Katogo
12	EVERISTO MOYOSVI		PLOT 7 DAWN	MALE	Moyosvi
13	NEWTON CHAZI		PLOT 12 DAWN	MALE	
14	OSWALD MOYOSVI		PLOT 14 DAWN	MALE	

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	NATHAN SUTU		PLOT 17 PAON FARM MACHILE	MALE	
16	FRADRECK ZIMUNDA		PLOT 2 DAWA FARM MACHILE	MALE	
17	peas	SPOWII	PLOT 4 LOPM MACHILE	MALE	
18	Shepherd Palawek		PLOT 8 DAWN FARM	MALE	
19					
20					
21					

## Athlone Irrigation Scheme Community Meeting Minutes

04/10/25 11am Athlone Irrig Scheme Meeting

### Introduction

The RACP project was explained and that it built up from the SACF and focuses on solving climate change issues. The villagers were encouraged to give their views and concerns on the irrigation scheme. RACP came in to resuscitate and rehabilitate the program to try and alleviate climate change problems.

- \* Road rehabilitation
- \* restoring land and water sources
- \* climate smart agriculture
- \* Afforestation
- \* Solar-powered irrigation

### Benefits & Concerns

- \* Solar powered irrigation for continuous farming
- \* Mountainous area, water does not reach the area and pipes.
- \* Employment creation
- \* Improved livelihoods
- \* Water harvesting techniques
- \* Afforestation



### Concerns

- \* Pump is small
- \* 2 pumps to cover both sides
- \* The should be a surrounding fence
- \* Road rehabilitation
- \* Aluminium pipes are being stolen, need more pipes



Community meeting register for Athlone Irrigation Scheme

Stakeholder Consultation Register - IFAD (RACP)

District: MUREWA : Date 05/10/24 VENUE: ATHLONE IRRIGATION S

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	REUBEN MAKOTO	AGRICULTURE	PLOT N <sup>o</sup> 31 ATHLONE 0773 135 490	MALE	
2	PETER. KIASANDE	AGRI	077 111 9269	MALE	
3	JOEL MAWENSUKA	AGRI	0780699435 0775700911	MALE	
4	Sekai Ganga	Agric	077971909	female	
5	P MAGOTO	AGRIC	PLOT 35 ATHLONE 0771 917 185	MARE	
6	PATRICK NYAMBO	AGRICULTURE	PLOT 44 ATHLONE 0773 404 690	MALE	
	P MAKOTO	AGRIC	0776156316	male	

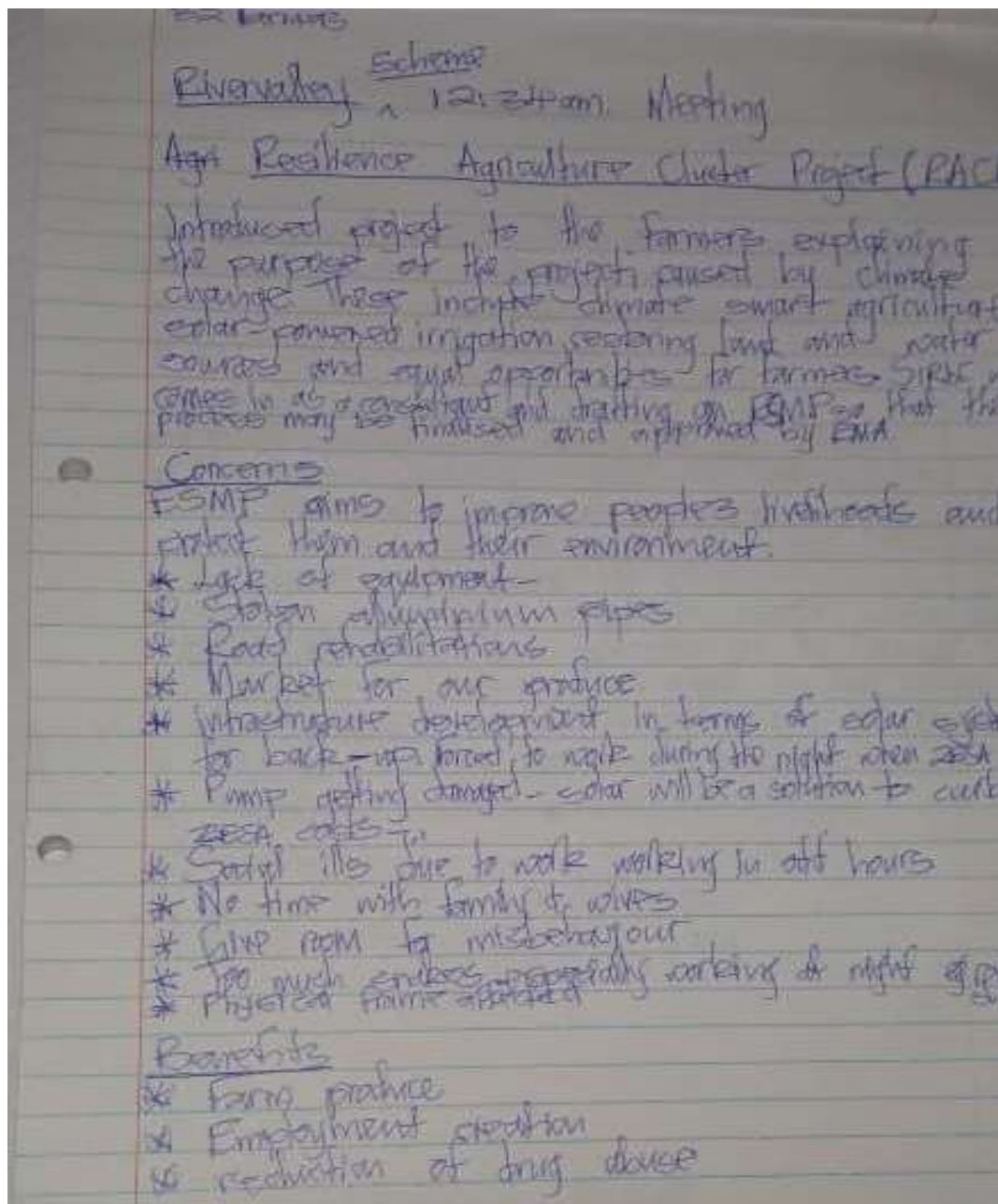
Athlone Murehuwa

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	Tarino Shambawamela	AGRICULTURE	Plot 47 ATHLONE Farm 0778352002	MALE	
8	Brown Chakwesha	Agriculture	Plot <del>45</del> 43 Athlone Farm 0772649788	✓	
9	BETTY MAJURU	AGRICULTURE	Plot 36 ATHLONE FARM	FEMALE	BM,
10	VIOLA Mhutuwa	Agriculture	Athlone Farm Plot 2 0771711546	Female	Mhutuwa
11	LAINAH Murozi	agriculture	Athlone Farm Plot 29 0782399582	Female	Murozi
12	Steph Chirwanemhuka	agriculture	0778358411	MALE	St Chirwanemhuka
13	Zwaitwa Kangara	Agriculture	0778630149	Female	Zwaitwa
14	Elcemia Mwardapola	Agriculture	0775657251	Female	Elcemia

# Athlone Murehwa

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	Patience Chidawanyika	Agriculture	plot 13 Athlone farm 0778272417	female	PChidawanyika
16					
17					
18					
19					
20					
21					

## River - Valley Irrigation Scheme Community Meeting Minutes



- \* Equipment should be added as some are <sup>disrupt</sup> now
- \* Mikungu mikuku, mibacha can not be destroyed
- \* Crops which may be planted or not
- \* Girl child may be affected

### Concerns continued

- \* Affects psychological frame for the farmers
- \* Marketing system should be looked into -  
we all should look at sourcing markets for  
the farmer. Above market is not ideal  
the buyers determine the price.
- \* Projects take time to kick-start which  
affect the zeal and interest of the farmers
- \* Transformer 100kva - too small for the area  
Need 200kva so that it covers all areas and also
- \* <sup>change niche</sup> changes - people now doing stream bed  
cultivation.
- \* women now working in odd hours also

### Mitigation Measures






- \* Roads should be rehabilitated.
- \* Fence should be put in place

13:28 Meeting Ended.






Community meeting register for River - Valley Irrigation Scheme

Stakeholder Consultation Register - IFAD (RACP)

District: Muramba : Date 04/10/25 VENUE: River Valley Irrig Scheme

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	Annie Chitunga	Farmer	33 Plot River Valley 0779636555 Macheke	F.	
2	Adlight Mainda	Farmer	Plot 31 River Valley Macheke 0784 010 329	F.	
3	Juliet Chigombe	Farmer	Plot 12 River Valley Macheke 0773 701 188	F.	
4	Mary Samambwa	Farmer	Plot 6 River Valley Macheke 0774998655	F.	ms.
5	James Kamvura	Repairer	Plot 15 River Valley Farm Macheke 0774210944	Male	
6	Brian Kamvura	Farmer	Plot 32 River Valley 0779104214	M	

○ River Valley ○

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	Masimbs Maimbs	farmer	Plot 31 R/Valley 077723190	m	
8	Takuckus Maimbs	farmer	Plot 30 R/Valley 0772201360	m	
9	Ephraim Chitsike	farmer	Plot 12 R/Valley 0773701138	m	
10	Dowyi Katiya	farmer	Plot 11 R/Valley 0775005398	m	
11	AUSTIN CHITIMA	FARMER	PLOT NO 33 0777203242	m	
12					
13					
14					

## Minutes From the Stakeholder Engagement Meeting at Principe Irrigation Scheme

Marshland Central

Principe B Irrigation Scheme: Shamba 10/10/25

### Introduction

Introductions were made thereafter a brief background of the Resilient Agriculture Cluster Project (RACP) was made. The project was said to be building up from the Smallholder Agriculture Cluster Project (SACP) which was currently operating. The project was meant to revitalize the irrigation schemes. SIRSC was therefore tasked to do an ESMP.

### Purpose

- Land rehabilitation
- Afforestation of nearby forests
- Ready markets for farm produce
- Rehabilitation of feeder roads
- Solar irrigation system
- Equal opportunities for men and women

### Concerns / Expectations

- Founding fence around the scheme
- More irrigation equipment is needed at the scheme
- Erratic power outages
- No fixed markets for farm produce
- Siltation of the river
- Farmers needed individual solar pumps
- Diversification by venturing into fish farming
- Agreements on how new equipment can be sourced/bought
- People were now sleeping in the fields because electricity only comes during the night.
- Farmers requested to be put on the industrial line to ease electricity issues

40

## Benefits

- Reaching available markets
- Improved livelihoods
- Improved health and living standards
- Employment creation
- All day irrigation and production after installation of solar powered irrigation

## Mitigation Measures

- Installation of boundary fence can solve problems of thefts and animals in the fields
- Solar powered irrigation will curb against power cuts
- Reaching available markets so that farmers will not lose out and forced to sell at low prices.
- If the system revives, farmers will be able to borrow from banks as they are assured to pay back from profits from the fields
- New infrastructure
- Have measures to avoid stream bank cultivation

## Register From the Stakeholder Engagement Meeting at Principe Irrigation Scheme

**SACP Activity Registration form**

Date ..... Component ..... Name of Activity:.....  
 District ..... Ward ..... Venue.....  
 Activity Reference # as per AWPB.....  
 Topics/Modules Covered .....

National ID of HH registered in the project	First Name of Participant	Surname	Gender (M/F)	Year of Birth	National ID	PWD (Y/N)	Gender of Household (WHH/MHH)	Contact Number	Signature of Participant
68-05864238	TRIED	MWANGI	M	1980	68-05864238	N	WHH	77306 2938	[Signature]
68-090011-68	CEDRAS	MUNWIZA	M	1990	68-090011-68	N	WHH	771008	[Signature]
68-0351462	LUTUA	MWANGA	M	1968	68-0351462	N	WHH	71464 3933	[Signature]
68-040254	Clifford	MUNWIZA	M	1974	68-040254	N	WHH	077906 141	[Signature]
68-0369274	COMFREY	DIMBA	M	1959	68-0369274	N	WHH	0285183 196	[Signature]
45-230763	SKYLodge	KATUKA	M	1998	45-230763 183	N	WHH	077850 2502	[Signature]
68-0147154	Josphat	CHORWA	M	1969	68-0147154	N	WHH	077485 5239	[Signature]
68-072362	Raymond	Makanyaga	M	1986	68-072362	N	WHH	0770000	[Signature]
	Allan	Mwanga	M	1987	68-0526059	N	WHH	0770000	[Signature]
68-065000	Mwanga	Zikute	F	1983	68-065000	N	WHH	0770000	[Signature]
68-096364	Timot	KAZAYEKE	M	1995	68-096364	N	WHH	8538 078767	[Signature]
68-0407120	Rambani	MUNWIZA	F	1975	68-0407120	N	WHH	078200 4824	[Signature]

## Minutes From the Stakeholder Engagement Meeting at Banana Irrigation Scheme

Shahmura - Matshonland Central

Banana Irrigation 16:37 10/10/25

SIRDC began by introducing their team and explaining the project, RACP to the Banana irrigation farmers. Highlighted also is the climate proofing component of the project. The following questions were then asked in relation to the ESMP:

- What are your expectations
- What challenges may arise from inception to decommissioning
- What positive impacts can arise and how can they be enhanced
- What solutions can be proffered

### Responses

- Electricity is a challenge such that the inputs given by ARDA for wheat are dying because of lack of water
- Pumps are a challenge and need replacement.
- Using electricity from ZESA is expensive, solar might be a better option for power
- Our fence and pipes need replacement

- ⑤ If our irrigation is revised we can also be able to maintain
- ⑥ or install small thing as fence
- ⑦ Pumps which are small, they are not capable of irrigating the whole area at once
- ⑧ The well also to be connected to a different grid line which is known to have electricity consistently.
- ⑨ We want for an alternate irrigation method as some farmers are unable to service the aluminium pipes. The drag horse method is better.
- ⑩ We also tired of people coming to hold consultation discussions with different people yet with no progress, we need results.
- ⑪ We need better market prices also when we deliver a good produce for us to remain profitable
- ⑫ Electricity supply has load issues to a point that it destroyed our motor and we had to replace.
- ⑬ We also getting old because the irrigation has been resuscitated.
- ⑭ If resuscitation happens we will be able to send our children to school.

- ⑭ We end up practicing what we risk being arrested.
- ⑮ The community also emphasized the issue of communication.

**Register From the Stakeholder Engagement Meeting at Banana Irrigation Scheme**

**BANANA IRRIGATION SCHEME**

**SACP Activity Registration form**

Date: \_\_\_\_\_ Component: \_\_\_\_\_ Name of Activity: \_\_\_\_\_  
 District: \_\_\_\_\_ Ward: \_\_\_\_\_ Value: \_\_\_\_\_  
 Activity Reference # as per AWPB: \_\_\_\_\_  
 Topics/Modules Covered: \_\_\_\_\_

National ID of the participant in the project	First Name of Participant	Surname	Gender	Year of Birth	National ID	PWD (Y/N)	Number of Participants in the group	Gender	Signature of Participant
4513704165	Malunga	Mubana	M	1979	4513704165	NO	MHH	07/02/2024	Mubana
6306621011	Mbereu	Munyaho	F	1982	6306621011	NO	WHH	07/02/2024	Mbereu
6400000000	Imwani	Munyaho	M	1981	6400000000	NO	MHH	07/02/2024	Imwani
6403164700	Amu	Munyaho	M	1985	6403164700	YES	MHH	07/02/2024	Amu
4513704165	Shamba	Shamba	M	1975	4513704165	NO	MHH	07/02/2024	Shamba
6800000000	Shamba	Shamba	M	1977	6800000000	NO	MHH	07/02/2024	Shamba
6800000000	Shamba	Shamba	M	1975	6800000000	NO	MHH	07/02/2024	Shamba
6800000000	Shamba	Shamba	M	1987	6800000000	NO	MHH	07/02/2024	Shamba
6800000000	Shamba	Shamba	M	1988	6800000000	NO	MHH	07/02/2024	Shamba
6800000000	Shamba	Shamba	M						
	TICHARAZWA	MUNYHO	M						

National ID of the participant in the project	First Name of Participant	Surname	Gender	Year of Birth	National ID	PWD (Y/N)	Number of Participants in the group	Gender	Signature of Participant
4513704165	Rita	Munyaho	F	1983	4513704165	N	MHH	07/02/2024	Rita
4513704165	Ellen	Chamba	F	1980	4513704165	N	MHH	07/02/2024	Ellen
4513704165	Rudya	Kabaja	F	1977	4513704165	N	MHH	07/02/2024	Rudya
4513704165	Margaret	Kabaja	F	1985	4513704165	N	MHH	07/02/2024	Margaret
4513704165	Denise	Guba	M	1982	4513704165	N	MHH	07/02/2024	Denise
7012200000	Shamba	Munyaho	F	1951					Shamba

Names of Training Coordinator: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name of PC/ Cluster Coordinator: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Minutes From the Stakeholder Engagement Meeting at Eben Irrigation Scheme

Mtsh Central: tl Shamba

Eben Irrigation Scheme - 11/10/25 0930

### Intro

SACP and RACP team were introduced and a brief background of the project was given with different stakeholders. The stakeholders included engineers, agronomists, sociologists, agro economists, Agriex officers.

### Purpose

- \* Road rehabilitations
- \* Solar powered irrigation
- \* Afforestation
- \* Smart ~~Climate~~ smart agriculture
- \* Equal opportunities for both men and women.
- \* Land rehabilitation

### Background and Concerns

- \* Scheme started in 2010
- \* Contributed 25%
- \* 2012 electric meter was faulty
- \* Managed to repair the meter by themselves
- \* 2014 - 2015 farming was going on smoothly
- \* Then the pump got faulty. with new communal farmers.
- \* Water is available but if rains are little water dries up
- \* Water in the dam is used by the hippo park and nearby college
- \* There are crocodiles & fish in the dam which affects human life.
- \* No wild animals from the game park came out to the community.

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15 houses headed by males

Youths - 12

Women - 25

\* Irrigation Systems use sprinklers

\* 2022 up to now no irrigation taking place

\* Was irrigation all year round - 2 farms A & B  
When farming started all farms were irrigated  
at the same time until challenges started

\* Mitigation measures

- A big engine should be installed to irrigate the  
whole farm. As horse power is not suitable

- Need improved irrigation system with huge water  
discharge

- Solar powered irrigation system to curb  
electricity challenges

- Equal opportunities on water discharge in fields

- Not social issues when the system was running

- But now its happening because of idleness  
\* Vegetables grown, cucumber, carrots, cabbage, watermelon  
cereal, green vegetables, green mashing, sweet potato

\* Crops in order of popularity

1. Green Mashes

2. Sweet potatoes

3. Potatoes

4. Beans

5. Butternut

\* Market for produce was readily available back then

\* 0.2 ha - \$500 / person

- Poor record keeping noted as farmers failed to  
highlight expenses against received income.

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X In terms of expansion and their heritage  
akes or grapes etc. - No graves near the scheme  
\* No river saltation in Mijanduz river.

10.56 am.

Register From the Stakeholder Engagement Meeting at Eben Irrigation Scheme

Eben Irrigation Scheme. 18/10/25 9:30 am				
Name	Ward/Village	Contact	ID No	Signature
T. Ndambo	SUSUP	071 511 542	68-04831168	T. Ndambo
D. Ntshangwe	SUSUP			D. Ntshangwe
F. Musuka	SUSUP	071652337	68-1461431	F. Musuka
Juliet Chapeyika	SUSUP	078302860	68-1461431	Juliet Chapeyika
Nyanda Maitete	SUSUP	0775009143		Nyanda Maitete
Hakirothe Kamelira	SUSUP	0777123892	68-047822F	Hakirothe Kamelira
Taurai Sunja	SUSUP	0773183543	68-041903P68	Taurai Sunja
Thomas Maunda	SUSUP	0780801653		Thomas Maunda
Godwin D. V. N. A. A.	SUSUP	0776562685		Godwin D. V. N. A. A.
W. N. K. K. K.	JASI	0772971122	68-074446L68	W. N. K. K. K.
Ngoni M. M. M.	SUSUP	0785833793	68-042492E68	Ngoni M. M. M.
Chamu Kamusha	SUSUP	0773818994	59-110676J68	Chamu Kamusha
Innocent Jasi	SUSUP	0711811568	45-246876L68	Innocent Jasi
Taoulale Jasi	SUSUP	0712156518	68-066477A68	Taoulale Jasi
Stephen Chidavaenzi	JASI	0775131313	68-022724L68	Stephen Chidavaenzi
Kingslere Mhara	JASI	0714034266	68-074497B68	Kingslere Mhara
Fintak M. M. M.	SUSUP	0785721944	68-0225K68	Fintak M. M. M.
THOMAS MATHAMBA	JASI	0710930940	68-074404E68	THOMAS MATHAMBA
Joseph Kambanda	SUSUP	077710654	68-04668R68	Joseph Kambanda
Eweti MURAMON	SUSUP	071255364	05-092910W68	Eweti MURAMON
Justice Jasi	SUSUP	0716266801	68-074427R68	Justice Jasi
Aggel K. Jasi	JASI	077714247	68-027026E68	Aggel K. Jasi
Rumbira Athonyo	JASI	0783293331		Rumbira Athonyo
Gladys Chani	SUSUP	078009821	05-022549B68	Gladys Chani
BATSIANI MURANA	SUSUP	0711370179	68-047881M68	BATSIANI MURANA

## Minutes From the Stakeholder Engagement Meeting At Chesa Irrigation Scheme

Mt Darrovin: Mashonaland Central

Chesa Mufumbira Irrigation Scheme; 13/10/25

10:00 am

### Introduction

A brief background of RACP was shared with the farmers. Mainly that it builds up from SACP but the programs are similar. RACP comes in to revitalise the irrig scheme and also find ways to restore land and water sources, and also to practice climate-smart agriculture

### Purpose

- \* Solar powered irrigation
- \* Climate-smart agriculture
- \* Restoration of land and water sources
- \* Equal opportunities for both men and women & youth
- \* Afforestation

### Expectations

- \* Building up the scheme by repairing the pump and maintenance of the pipes with leakages
- \* To change the point where the pump is taking water from (suction pipe) - Need somewhere where there is water
- \* Solar irrigation system from electricity
- \* Repair of warehouse for storage of inputs
- \* Bore drilling in the scheme for clean water
- \* Ready markets for sale of produce
- \* Pipes are now obsolete - need new ones
- \* Fence need to be repaired as some parts of the fence are torn up.
- \* Sustainability through passing over the ownership to the youths

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### Concernation Concerns

- \* Roads need to be repaired. (feeder roads)
- \* Start projects which the farmers got are now finished
- \* Need irrigation to be reestablished.
- \* Need locally designed equipment for ease of repair issues.
- \* Find ways to manage water so that everyone benefits.
- \* Soil needs to be tested so that farmers use better fertilizers
- \* Radio stations for construction workers destroyed by the flood

### Benefits

- \* School fees for our children
- \* Improvement of livelihoods
- \* Improved health and well being
- \* Employment creation
- \* Improved community well being
- \* Hunger becomes a thing of the past
- \* Improved yields means improved markets and more money for the community

### Concerns Continued

- \* Road passes through the scheme which may cause thefts and leaving gate open which leads to animals entering the field
- \* Old equipment need to be repaired or sold so that farmers get money that may improve the systems
- \* Project starting long to commence

end 10:55 am

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## Register Chesa Irrigation Scheme

### STAKEHOLDER CONSULTATION REGISTER - IFAD (RACP)

District: Mt Darwin Date: 13/10/25 Venue: Chesa Mutondwe Irrig Scheme

	Name and Surname	Physical Address	Contact Number	ID Number	Gender	Signature
1	LORREN MAMWA	Gweshu Village W25	0793 552 761	71-082785 W 15	Female	Makw...
2	Gladys Gatsi	" " "	0719499779	45-043243 W 15	Female	G. Gatsi
3	LORREN MUPFANE	" " "	0715917506	-	Female	L. Mupfane
4	Elizabeth Chimwe	" " "	0784020977	61-04459354	Female	E. Chimwe
5	Patricia Kaganda	Nyabani Village	0776905381	15-083762115	Female	P. Kaganda
6	Maudine Mosembwa	" " "	077 515 4878	45-0124925	Female	M. Mosembwa
7	Reya Makurele	Nyabani Village	0772 700 562	45-071902145	Female	R. Makurele
8	Evelyn Mubwanzira	Doro Village	0775765052	43-04498743	Female	E. Mubwanzira
9	Kubakwete Gatsi	Gweshu	0702737920	45-174054905	Female	K. Gatsi
10	Leno Mubwanzira	" " "	0788565699	15-12679015	Female	L. Mubwanzira
11	A Precious Ngirazi	'MALISA' VILLAGE	0775171226	45-1790318	Female	P. Ngirazi
12	Ingridzi Nhira	" " "	0758919997	68-03916 67	Female	I. Nhira
13	TAFIRO MUROMBO	" " "	0779 156 247	45-053841 QW	Female	T. Murombo
14	VICTOR ZYOMARIWA	'KARISA' VILLAGE	0777072464	45-0191808 45	M.	V. Zyomarima
15	Mwambwa Gatsi	'GATSI' VILLAGE	0782681753	45-0581550-45	M	M. Gatsi
16	Mwambwa MUCHEMPE	'GATSI' VILLAGE	0776538870	45-0498025 45	M	M. Mucchempe
17	CHUTSI NAANDORO	'MUTONDWE' P. 25	0778351119	70-070235 165	M	C. Naandoro
18	Redas Gatsi	'ISKA' VILL 'DORO 25	0777667077	45-1318352 95	M	R. Gatsi

## Minutes From the Stakeholder Engagement Meeting at Mutondwe Irrigation Scheme

Machonaland Central

13/10/25

Mutondwe Irrig Scheme: Mt Darwin 12:30pm

### Introduction

Farmers were given a brief background of the project. RACP was explained as coming or building up from the SACP. SIRDC is doing an ESMP for the RACP project to have an insight of the social & environmental aspects of the community.

### Purpose

\* Rehabilitation of the irrigation scheme mainly looking at:-

- Climate smart agriculture
- Solar powered irrigation scheme
- Road rehabilitation
- restoring land and water sources
- Equal opportunities for both men and women, not forgetting the youth
- Afforestation
- Ready markets for farm produce

### \* Expectations/Concerns

- Boundary fence is now dilapidated, needs repair/replacement
- Engine is small, need a bigger one to cater for the whole farm.
- Pipes are now
- Irrigation using solar power.
- Need more advanced systems for example centre pivots etc.
- Dam needs rehabilitation, hence water becomes dry - can no longer hold much water due to gate panning, stream bank cultivation.
- People coming in to take water for sale in bulk which affects the dam capacity.

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Talbot Mill - near - works -> gateway

- Repair of storage shed
- Misuse of money
- Engines may be stolen
- Not taking time for projects to commence
- Failure to utilise the given opportunity
- Threats within the scheme

### Benefits

- Better yields
- Employment creation
- More food for the families
- Health for the community
- Farmers can now take their kids to school
- No more hunger for the families
- Markets

### Mitigation

- Take care of equipment (Night day guards)
- There should be a constitution for the scheme which guards against certain things
- Guards at the gates to avoid theft
- Solar powered irrigation should be installed
- Road rehabilitation on feeder roads

### Concerns

- Forced to grow certain crops with a promise to get markets then fail to fulfil the promise
- Promises should be fulfilled, not to take long in coming back to fulfil the promises
- No cultural issues in the area
- Dam rehabilitation needs to be done for water to flow.<sup>RD</sup>

- New workers coming in should first see the local leadership first before commencement of work
- Construction workers should be given rules to avoid dangers of covid 19.
- Roads need to be rehabilitated even in the fields
- ~~Men~~ - Men, women and the youths are all included in the scheme.
- Farmers also need to be included in inputs distribution so that they can pay back after yields. - No response from APDA in that regard as it is now responsible for the inputs distribution
- Electricity not reliable source of ~~the~~ in terms of irrigation.

#### Agri officer

- The system needs to be changed, badly. People are taking long to irrigate the garden even with no ZESA or power cuts and enough water in the garden dam. The
- Farmers also encouraged to also try by all means to correct what they can without waiting for donations

End 1324.

## Register From the Stakeholder Engagement Meeting at Mutondwe Irrigation Scheme

STAKEHOLDER CONSULTATION REGISTER - IFAD (RACP)

District: Mt Doreen Date: 13/10/25 Venue: Mutondwe Irrig Scheme

	Name and Surname	WARD Physical Address	Contact Number	ID Number	Gender	Signature
1	Christopher Hlobo	WARD 40	0773424667	45-031502245	M	Hlobo
2	GANGATHI E CHIMBERA	WARD 40	0775056757	68-050851968	F	Chimbera
3	CLIFFORD KUDENGA	WARD 40	0785331301	59-016094280	M	Kudenga
4	CHUMBE CHUMBE	WARD 40	0774364011	45-003218945	M	Chumbe
5	ESAU CHANA	WARD 40	0772745632	63-079425V45	M	Chana
6	Tatudzwa Mafukidze	WARD 60	0710276511		M	Mafukidze
7	SALOME MAFUKIDZE	WARD 40	0776547772	45-41351A-45	F	Mafukidze
8	Muzondwe Mafukidze	WARD 40	0774940066	46-0395555-45	M	Mafukidze
9	Weston Kamukunda	WARD 40	0780929554	61-077426-F42	M	Kamukunda
10	Nelson Vhaseya	40	4773 693295	61-015405W61	F	Vhaseya
11	George Mhango	"	0773625032	45-007432E45	F	Mhango
12	Rosemary Chikumbi	ward 40	0772574427	63-589469-1145	F	Chikumbi
13	NASA CHUMBE	"	0772545445	63 223289V45	M	Chumbe
14	Dorothy Chikumbi	ward 40			F	Chikumbi
15	Erica Mafukidze	WARD 40	0785451253		F	Mafukidze
16	Alice Khoriso	WARD 40	0776134713	45-009899Z45	F	Khoriso
17	WINDYLO CHANDA	40	077405603	45-042374B45	M	Chanda

## Stakeholder Engagement Meeting Minutes at Tsakare Irrigation Scheme

Mashonaland Central: Mt Darwin  
Tsakare Irrig Schemes (A+B): 13/01/25 1520pm

### Introduction

The SIRDC was introduced to the Irrigation Management Committee. Both schemes A & B were represented at the meeting. RACP was explained to be building up from SACP and meant to revitalise the irrig schemes. SIRDC was tasked to do an ESMP for the RACP project so as to hear the views and concerns of the community and farmers.

### \* Purpose

- Rehabilitation of Irrigation Schemes
- Solar powered irrigation system
- Soil and land rehabilitation
- Climate smart agriculture
- Road rehabilitation
- Ready markets for farm produce
- Equal opportunities for both men and women.

### \* Concerns / Expectation

- Need for ready markets so that
- Inputs
- Scheme B irrigation system of aluminium pipes is not working well for them, they need a better and more modern scheme
- The dam is silted due to stream bank cultivation and mining activities
- Benchmarks for irrigation and drinking water
- Need solar system installed to curb electricity challenges
- Road needs to be rehabilitated

- Difficult to recover stolen equipments
- If expansion takes place some nearby may be affected
- Workshops for farming so as to improve farming practices and yields
- Need for partnership with organisations like ZIMTRADE for markets
- There is no electricity in the fields
- Programs taking long to commence
- Theft are now rampant in the schemes the ~~dam~~ ~~with~~ Zimbabweans were discovered in dam
- No spare engines, need for another pump in case of breakdowns
- What sold at GMB has not been paid up to now
- Diversification - eg keeping of domestic animals teaching them from the school
- Local people should be employed even though there is rehabilitation work.

### Benefits

- Improved livelihoods
- Improved health and well being
- Employment creation
- Improved markets
- School children can now attend school without fail.
- Road rehabilitation
- Afforestation
- Land and soil rehabilitation

### Mitigation Measures

- Need for security systems eg guns to protect farms
- Dam sited needs to be sited to remove the silt
- Roads should be rehabilitated
- Dam need to be de-mined so that the silt can be removed
- Programs should not take long to commence

Benefits - personal relations and business relations build up.

- Farmers should be paid on time
- Install electricity in the schemes
- Need for boreholes in the fields

### Concerns/Expectations

- Need for a permanent market place for the farmers to sell their goods freely.

\* Youth, men and women have equal opportunities in the farmers.

End 16:10pm

## Stakeholder Engagement Meeting Register at Tsakare Irrigation Scheme

STAKEHOLDER CONSULTATION REGISTER - IPAD (RACP)

District: Mt Dambo Date: 13/10/25 Venue: Tsakare A<sup>o</sup> Irrigation Scheme

	Name and Surname	Physical Address <sup>Ward</sup>	Contact Number	ID Number	Gender	Signature
	FUNGIA CHIMBER	TSAKARE Village	0777425530	05737 445	F	F. Chimber
1	NYAKARO CHIMBWE	Tsakare Village	0712734662	45-057962745	F	Chimber
2	MAYIS KAPFUNDE	Tsakare Village			F	X
3	Diana Nkamigiro	Tsakare Village	0777032787	68-061106768	F	Diana
4	Berhild M. Conese	Tsakare Village		45-003313745	F	
5	Francisca Chwamuzi	Tsakare Village	0771445618	45-000389925	F	Francisca
6	Eva Ntinda	Tsakare Village	0773127444	24-025969724	F	Eva
7	Chimshira Constantine	Tsakare Village	0774932707	05-036633868	F	CC
8	JIMOTAS CHINAME	Tsakare Village	0773686257	43-046266445	M	Jimotas
9	JILAS MUTINDI	TSAKARE Village	0772492058	45-0432014	M	Jilas
10	ANANIAS BAMBAZA	TSAKARE Village	0779868674	45-232559245	M	Ananias
11	TINASHU CHIPAZI	TSAKARE VILLAGE	0777252286	45-138803245	M	Tinashu
12	Mwanga George	ARAITEK	0773636375	68-057204268	M	Mwanga
13	CHINJANDUKA CHIMARA	TSAKARE VILLAGE	0774843201	45-024319845	M	Chinjanduka
14	MARIRA KAMUMVURI	TSAKARE VILLAGE	0773750930	45-127471445	M	Marira
15	CHIBONDO TATENITA	TSAKARE VILLAGE	0787225632	45-202380145	M	Chibondo
16	MUTJATI SUSTAIN	TSAKARE VILLAGE	0785520313	45-127431045	M	Mutjati

## Stakeholder Engagement Meeting Minutes at Chippa Irrigation Scheme

Mt Darwin: Northernland Central  
Chippa Irrigation Scheme: 14/10/25 1:00pm

Introduction

- Meeting started with a prayer and members went on to introduce themselves. The RACP project was explained to the farmers that it builds up from the SACP project with main focus on climate smart agriculture. SRSC team was tasked to do an ESMP for the RACP project.

Purpose

- \* Climate smart agriculture
- \* Afforestation
- \* Solar powered irrigation
- \* Land and soil restoration
- \* Road rehabilitation
- \* Markets for farmers
- \* Equal opportunities for both men and women & youths

Expectations / Concerns

- \* Boundary fence for the scheme
- \* Road need to be rehabilitated
- \* Beach markets for the farm produce
- \* Rehabilitation of the scheme, eg - pumps, starter box were stolen, leakages on pipes, cable which takes power from the pump house to damage. Also the aluminium pipes are now not enough for the scheme
- \* People are now stepping in the fields because they will be on the look out for domestic animals
- \* Sprinklers
- \* Main line should be extended to the up farms so that water can reach out to all fields

25

- \* Unfair distribution of water but contributions are needed
- \* Pipelines are now damaged which becomes difficult to water the fields.
- \* Threats in the fields because there is no fence
- \* There should be advice on what type type of crops to be planted
- \* Some contractors come with their own crops but they then buy at very low prices or not at all.
- \* Security around the ~~land~~ field should be improved.

### Benefits

- \* Enough food for the families
- \* Improved livelihoods
- \* School fees for the children
- \* Foreign currency
- \* Building better houses
- \* Improved health and well being

### Concerns continued

- \* Enough land available, but water is not covering all areas
- \* The coming in of contractors may cause social ills with girls left with babies.
- \* They expect tap water in the fields
- \* Scheme should be expanded to cover all families
- \* Pipes are not covering all areas in the scheme.

### Mitigation

- \* Constitution should be set up so that people should abide by the laws.
- \* Employ women as contractors

### Mitigation

- \* Markets should be readily available
- \* Equipment should be serviced and repaired regularly
- \* Roads should be rehabilitated
- \* Fence should be installed around the scheme
- \*

### Stakeholder Engagement Meeting Register at Chipipa Irrigation Scheme

STAKEHOLDER CONSULTATION REGISTER - IFAD (RACP)

District: Mt Darwin Date: 14/10/25 Venue: Chipipa Irrigation Scheme

	Name and Surname	Physical Address	Ward	Contact Number	ID Number	Gender	Signature
1	FRANCIS MUSAHA	CHIPIPA	22	077791550	42-1054981E42	Male	<i>[Signature]</i>
2	STANLEY MASHAYIWA	CHIPIPA	22	0777471993	11-0312003745	Male	<i>[Signature]</i>
3	PRINCE CHINDASTHA	CHIPIPA	22	0772231127	59-004219E15	male	<i>[Signature]</i>
4	PRINCE MANDIWA	"	"	0772475351	15-123624W15	Male	<i>[Signature]</i>
5	ONIAS CHIKOMO	"	"	0775073162	14-012224C15	M	<i>[Signature]</i>
6	BONIFACE SAYANHA	"	"	0776601539	15-138250115	M	<i>[Signature]</i>
7	WILLIAMS MURUMBI	"	"	0783281011	63-0928534R15	M	<i>[Signature]</i>
8	NORMAN CHIPUNZA	"	"	0713160018	42-051720-Q	M	<i>[Signature]</i>
9	SVENNIE MASHAYIWA	CHIPIPA	22	0771672074	45-227027L45	W	<i>[Signature]</i>
10	WILBERT MASHAYIWA	"	"	0783474554	43-058283745	M	<i>[Signature]</i>
11	PREVICIOUS MASHAYIWA	"	22	0764155390	45-204625T45	M	<i>[Signature]</i>
12	FERNANDO MATIRO	"	22	0700011122	45-78065145	M	<i>[Signature]</i>
13	CLEVER MASHAYIWA	"	22	0778325071	45-162895445	M	<i>[Signature]</i>
14	C. CHINDASTHA	CHIPIPA	22	0779180953	11-085730W15	M	<i>[Signature]</i>
15	C. CHINDASTHA	CHIPIPA	22	0786939766	15-141606P15	MALE	<i>[Signature]</i>
16	HYATT MASHAYIWA	CHIPIPA	22	07722426247	65-109697515	MALE	<i>[Signature]</i>

STAKEHOLDER CONSULTATION REGISTER - IFAD (RACP)

District: Mt Darwin Date: 14/10/25 Venue: Chipipa Scheme

	Name and Surname	Physical Address	Contact No.	ID no.	Gender	Signature	
17	N. MASHAYIWA	CHIPIPA	22	0218406781	45-255225L15	Male	<i>[Signature]</i>
18	T. MASHAYIWA	CHIPIPA	22		45-047097K45	Male	<i>[Signature]</i>
19	J. KUMAKUNISA	CHIPIPA	22	0776885798	42-091969E42	male	<i>[Signature]</i>
20	W. MASHAYIWA	CHIPIPA	22		15-1133015N15	male	<i>[Signature]</i>
21	T. MASHAYIWA	CHIPIPA	22	0971732762	45-692935-45	male	<i>[Signature]</i>
22	N. Sango	CHIPIPA	22	0772564885	50-0476861450	female	<i>[Signature]</i>
23	S. MASHAYIWA	CHIPIPA	22	0779939472	61-00210M61	female	<i>[Signature]</i>
24	C. Chiparira	CHIPIPA	22	0771651615	43-060014568	female	<i>[Signature]</i>
25	R. Kabwundu	CHIPIPA	22		11-004419215	female	<i>[Signature]</i>
26							
27							
28							
29							
30							
31							
32							

## Chomutamba Irrigation meeting minutes

### Mashonaland West

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

#### Opening Remarks

The meeting began with introductions of the SACP and SIRDC team. 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 including 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.

## Mashonaland West

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

### Opening Remarks

The meeting began with introductions of the SACF and SIRDC team, 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.

## LAZENBY IRRIGATION SCHEME meeting minutes

Zimbabwe

March Meet - Lazenby Irrig 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 paper 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 program takes 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 hours power

- \* 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 ~~again~~ ~~again~~
- \* It's now looking into what had been left out in 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 cost against the numbers on paper.
- \* Farmers request to follow up 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~~ ~~rebooting~~ the scheme for production to take place
- \* Are there monitoring systems on issues of deforestation and soil fertility

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

1230pm.

## SHAMROCK B2 IRRIGATION meeting minutes

Marsh West: Shamrock B1 & 2 Irrig Scheme 3:20pm  
6/10/25

### Introduction

The meeting started with introductions of the SIRSC 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
- \* Leaky pipes 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 situation
- \* Toilets and boreholes 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.

## TAKAVINGA IRRIGATION SCHEME minute minutes

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 SIRDC was 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 GMP 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 *vakaruindira* *monbe*.
- \* Need markets to sell their produce
- \* Need fence around their gardens in the community
- \* Need boreholes for water to drink.

①

- \* Available borehole is not working
- \* Expansion work will not affect the community
- \* Toilets need to be built 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~~ structures or markings
- \* Water - need for boreholes in the field for drinking water.
- \* ~~Child~~
- \* 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
- \* Cheqabu Safari Game Park - 3km - 5km from the scheme. That's where the elephants are coming from.

11:18am.



## SEKE SANYATI SCHEME meeting minutes

07/11/25 70 hectares March 2025  
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 calls
- \* 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
- \* Calls should work with local leadership

- ✗ Expectations and promises " not fulfilled
- \* Solar on the borehole so that water flows
- ✗ 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 crops
- \* Use applicant to water the fields and there is no problem for water to reach the gardens
- \* GD workers 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
- \* GD workers already have members which are the children and the surrounding communities

### WV E and M scheme Benefits

- ✗ Improvement of livelihoods
- ✗ Food security
- ✗ Employment creation for the locals / youths
- ✗ Infrastructure development
- \*

### Mitigation Measures

- \* Introduce access 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 tarmac roads and farm equipment

13/4

## Chiwirirano meeting minutes

Samfaji: Mochernaland West

Chiwirirano Irrigation Scheme: 07/10/25 16:58

Agritech 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. EIFAD was tasked to prepare an Environmental and Social Management Plan for the project.

### Purposes

- Road rehabilitation on feeder roads.
- Introduction for solar powered irrigation systems.
- 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.
- Tolls 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 water at 6pm

## Chomutamba Irrigation Scheme meeting registers

**Stakeholder Consultation Register - IFAD (RACP)** 0910 2111

District: West West : Date 06/10/25 VENUE: Chomutamba Irrig Scheme

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
1	Fredrick Mankwanya	Horticulture	0783732591	P	<i>[Signature]</i>
2	PRESA MIPERE Ruzengwe Guidera	Horticulture SACP	077219675 0773 518 469	F F	P.M <i>[Signature]</i>
3	Felistas Chinomwe	Horticulture	0783733101	F	F.C
4	Petros Marumani	Horticulture	0778069218	M	P.M
5	HYALAI MANKWANYA	Ground nuts	0773099901	F	Mankwani
6	Batsani Chikwani	Horticulture	0777 602 381	M	BC
	Erwick Hwazi Rumyazwa	Groundnuts	0776363581	M	<i>[Signature]</i>

**Chomutamba**

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
7	James Chodwa	Groundnuts	0785593042	M	Chodwa
8	Patricia Chamberi	Horticulture	0782926181	F	Chamberi
9	Adzisi Mappumo	Groundnuts	- - - - -	F	R.mappumo
10	Gift Muzwani	Horticulture	0786644060	M	Giftmuzwa
11	Josephine Kwari	Groundnuts	0783068118	F	J.kwari
12	Christoph Chikwani	Horticulture	0785217127	M	Chikwani
13	Chris Chikwani	Groundnuts	071215029	M	<i>[Signature]</i>
14	Cynthia Jari	Groundnuts	077613089	F	<i>[Signature]</i>

## Chomutambara

	Name and Surname	DEPARTMENT	Physical Address & contact number	Gender and Designation	Signature
15	KAIKE JARI	Horticulture	Mketa Village	M	
16	Gladys Matore	Groundnuts	071530113	F	G.M
17	Knowledge Matema	Horticulture	0776997633	F	K.M
18	Gift Materwa	Horticulture	0772553866	M	G.M
19	Angelina Malani	Groundnuts	0776160021	F	
20	Emmanuel MABZOLE	AGRIC	079299735	M	
21	Jobir BUDA	Jobir	0777912432	M	Jobir

Joseph	CHAMUKA	0782590607	M	
Jean	YROWATE	0483270762	M	Chur
PERUMBAI	CHORHE	0772869058	M	
ELWA	MUTSEB	075888001	M	
ZUIDAI	CHABUNGO	0784164945	M	
Jackson	John	0785865567	M	J. John
J. HOFER	D. J. J.	0774174766	M	
ERASMUS	MACHEN	0715772289	M	
ERNEST	MACHEN	0731085482	M	
COMFORT	CHANIWA	0787549634	M	
JIZUKA	WACHIPA	0779983004	F	

## Chomutambara

# 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	MALE	Bpa
			DARWENDELE		
16	DREEN MAPPURA		Plot No 22 LAZENBY FARM 310 DARWENDELE	Female	DupC
17	RURENGWE CHENDA	SACP	Church of Christ Chikumbuka	F	Rgwe
18	WENGAT MILLION		PLOT NO 21 LAZENBY FARM	MALE	Woin
			DARWENDELE		
19	LOVEMORE MUMETSI		PLOT 16 LAZENBY PO BOX 310 DARWENDELE	MALE	M B
20	FARAI KAHWA Mapuriri Chiburo		PLOT 19 LAZENBY FARM PO BOX 310 DARWENDELE	MALE Male	<del>Chiburo</del> Chiburo
21	B Mahuni		310 DARWENDELE	MALE MALE	Chiburo

A. NIASUSO  
S MILANZI

Plot 26, LAZENBY 310 Box  
DARWENDELE FEMALE  
DARWENDELE AGRICULTURE MALE

**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 66 Jengo 0775206881	F DEO	<i>[Signature]</i>
	Dorcas Mawwa	SACP	Plot 111 Mushina the choko	M DEO	<i>[Signature]</i>
16	Misty N'Pasha	Farmer	Plot 111	F	<i>[Signature]</i>
	Verencia Mubangi		Plot 111	F	<i>[Signature]</i>
17	Eunice M'Kwambata		Plot 111	F	<i>[Signature]</i>
	Miriam Macheka		Plot 4 077424472	F	<i>[Signature]</i>
18	Nancy Mwanjalo		Plot 11 077274452	F	<i>[Signature]</i>
	Manuel chengita	Farmer	Plot 17 077233555	M	<i>[Signature]</i>
19	Perick Fushan	Farmer	Plot 11 077233555	M	<i>[Signature]</i>
	James Sank	SACP	Plot 11 077233555	F	<i>[Signature]</i>
20	Phanas	SACP	Plot 11 077233555	F	<i>[Signature]</i>
	CLEMENCE MUTINHA	FARMER	Block 1 0774420995	M	<i>[Signature]</i>
21	FINB MUMAIRWA	FARMER	Plot N° 13 B2 077240197	M	<i>[Signature]</i>
	MAYWELL MARIWA	Farmer	Block 2 0777561507	M	<i>[Signature]</i>
	TARZEN MAKOMBE	SACP	0774493558	M	<i>[Signature]</i>
	TAKESURE MAGAMA	SACP	0773771003	M	<i>[Signature]</i>
	Sarah Chanywa	Farmer	0714821813	F	<i>[Signature]</i>
	Joseph Mubapira	Farmer	Plot 3 Mushina Chiquatu Block 2	M	<i>[Signature]</i>



**Seke Sanyati Irrigation Scheme**

	First Name of Participant	Surname	Gender (M/F)	Date of Birth	National ID	Gender of Household head (WH/MH/F)	Contact Number	Signature of Participant
11	Esnath	Sibanda						
12	LAINAT		F	1976	6310798	M/H	098641101	098641101
13	Funda	Alonomania	F	1971	2-08610627	M/H	077993477	077993477
14	Emeta	Muzengwaru	F	26	14-0581124	M/H		
15								
16								
17								
18								
19								
20								
21								
22								
23								

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

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

Chiwirirano Irrigation Scheme meeting registers

CHIWIIRIRANO IRRIGATION

**DAILY REGISTRATION OF PARTICIPANTS AT SACP TRAINING WORKSHOPS**

Name of Training: ESMP  
 Date of Training: 27/10/2025  
 Activity Reference # as per AWPB: .....  
 Topics Covered: .....  
 Venue: CHIWIIRIRANO IRRIGATION  
 Partner Organizing Training: SILVIA SACHA MUKHITA

	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	CYNARIS	TAKADUZA	M	02/06/70	58-134840558	MHH	0712 02066	<i>[Signature]</i>
2	CLEMENCE	PALISANI	M	09-09/10	26-077830526	MHH	075578011	<i>[Signature]</i>
3	DOKIAS	Mwalejo	M	06/03/77	06-02215506	M.H.H	078728453	<i>[Signature]</i>
4	Tina	Mwalejo	M	03/11/83	24-17831144	M.H.H	0776711885	<i>[Signature]</i>
5	GIFT M	MADAMBI	M	01/10/76	25-01560923	M.H.H	077526049	<i>[Signature]</i>
6	BOTHWELL	KAPURUTSA	M	13/10/86	24-15573645	M.H.H	0774323207	<i>[Signature]</i>
7	GABRIEL	CHOLIMWE	M	10/11/79	04-113910234	M.H.H	0785347191	<i>[Signature]</i>
8	ALBERT	MADERUZA	M	10/11/70	24-113860714	M.H.H	0785767130	<i>[Signature]</i>
9	VOTE	MANISWA	M	06/06/85	23-05564823	M.H.H	0785347010	<i>[Signature]</i>
10	MYARADZO	NDAMBI	F	03/04/78	23-0055862	F.H.H	0788991120	