# Final Report

## Provision of Consultancy Services for TA Green Roads for Water –

## Ref. No: RFP03/SACP/2025

**30 July 2025**

**MetaMeta**

SACP
Smallholder Agriculture Cluster Project

IFAD
Investing in rural people

OPEC FUND
for International Development

META META

GREEN ROADS FOR WATER

## Table of Contents

## Table of Figures

# 1. Executive Summary

This final report presents the process, outcomes, and lessons learned from the Green Roads for Water (GR4W) training conducted under the Smallholder Agriculture Cluster Project (SACP) in Zimbabwe in July 2025. The SACP aims to enhance rural livelihoods and agricultural productivity by improving local level and climate proofed last mile feeder roads infrastructure and resource management in key agricultural schemes. A major challenge in these areas is persistent water-related damage to rural roads, which leads to disrupted transport, higher maintenance costs, reduced market access, and negative impacts on local livelihoods and the environment. There was a clear demand from SACP and its partners for an integrated approach that would transform roads from sources of vulnerability into assets for water management and climate resilience.

In response, MetaMeta, in collaboration with SACP, implemented a comprehensive capacity building program centered on the GR4W approach. This approach, developed by MetaMeta, reframes rural roads as opportunities for water harvesting, erosion control, and ecosystem restoration—delivering a "triple win" of reduced maintenance costs, improved landscape resilience, and enhanced water availability for communities.

The training was delivered by a multidisciplinary team from MetaMeta, supported by SACP and local partners, and targeted a diverse group of 33 participants drawn from the SACP Project Management Unit, Provincial Project Implementation Units, Department of irrigation, government authorities such as Rural Infrastructure Development Authority (RIDA) and Zimbabwe National Water Authority (ZINWA), and local authorities i.e the Rural District Councils (RDCs). The program began with a three-day pre-training field visit (9–11 July 2025) to three SACP project sites i.e. Mashonaland East Province (Mug Ivhu inhaka Irrigation Scheme last mile road), Mashonaland Central Province (Chipiri Irrigation Scheme last mile road), Mashonaland West Province (Mamina B Irrigation scheme last mile road). The trainers and SACP representatives assessed local road-water-landscape relations and identified opportunities for demonstration and learning. Insights from these visits were used to tailor the five-day main training (14–18 July 2025) to the realities and priorities of the project areas.

The training adopted a participatory, blended, and problem-based approach, combining interactive classroom sessions, group exercises, field-based demonstrations, and the co-development of site-specific action plans. Each day was concluded with structured reflection and feedback, ensuring continuous adaptation and improvement.

Key achievements and highlights of the training include:

- **Significant improvement in participants' understanding** of GR4W principles and their practical application in the Zimbabwean context.
- **Hands-on experience** with water harvesting, erosion control, and road-water integration during field visits and demonstrations.
- **Strengthened skills in stakeholder mapping, intersectoral collaboration, and community engagement**, which are essential for the sustainability of GR4W interventions.
- **Development of actionable, site-specific implementation plans** for each project site, co-created by participants and tailored to local needs.

- **Strong engagement and positive feedback** from participants, with 95% rating the training as highly relevant, 93% indicating increased confidence in applying GR4W, 87% indicating the training was useful for their work and 98% stating they would recommend the training to colleagues.

The final evaluations demonstrated that the training was highly successful, with participants valuing and appreciating the participatory approach and practical focus 87% of the participants felt that their objectives were strongly met, and the training was useful for their work, 98 % agreeing that the course is worthy of recommending to more colleagues. The participants acknowledged the comprehensive content of the training, which combined theory and practice, terming it a great eye-opener. The hands-on field exercise was well received by participants, who saw its value in relation to their work and as a means of community engagement, particularly in the areas of A-Frame calibration and contour marking.

More participants requested additional time for field demonstrations, such as having two days of practical activities. The group work on the last day, which was a combination of all the daily group discussions, resulted in the development of 5 comprehensive site-specific implementation plans (each per province covered by SACP project), each outlining tailored interventions, specific activities, responsible stakeholders and their roles, resources required, timeline, monitoring framework and linkage to other SACP project components.

In conclusion, the GR4W training successfully met its objectives, providing SACP and its partners with the knowledge, skills, and momentum needed to institutionalize and scale up GR4W practices. The report documents the full training process, key results, and recommendations for the next steps. This training has laid a strong foundation for building more resilient, sustainable, and productive rural infrastructure and communities in Zimbabwe.

# 2. Introduction

The Smallholder Agriculture Cluster Project (SACP) whose goal is increased household incomes and improved nutrition, is designed to enhance agricultural productivity, promote rural development, and improve the resilience of smallholder farming communities. The project, under Component 2 – Climate proofed value chain infrastructure seeks to commercialize smallholder agriculture through the improvement of rural infrastructure—which includes roads—which are vital for connecting agricultural production centers to aggregation centres, markets and indirectly to other essential service. The SACP targets 89 kilometers (50km under the 2025 AWPB) of improved local level, climate proofed, last mile feeder roads. However, across the SACP areas, rural roads face persistent challenges: frequent water-related damage, erosion, flooding, and inadequate drainage which not only disrupts transport and market access but also undermines livelihoods, increases maintenance costs, and contributes to environmental degradation.

Recognizing these challenges, SACP has prioritized the integration of sustainable water management into road planning and maintenance. There is a growing demand among project staff and stakeholders for innovative approaches that can transform these challenges into opportunities—by harnessing roads as instruments for water harvesting, erosion control, and landscape restoration. The Green Roads for Water (GR4W) approach, pioneered by MetaMeta and introduced to more than 20 countries since 2015, directly addresses this need by promoting the design and management of roads as tools for water management and climate resilience.

In response to SACP's request, a comprehensive capacity-building program was developed and implemented by MetaMeta. The training was designed in close collaboration with SACP and tailored to the Zimbabwean context. The core implementation team consisted of experienced GR4W trainers from MetaMeta, supported by the SACP Project Management Unit (PMU) and RIDA. The training program took place in Kadoma town, Zimbabwe combining classroom-based sessions, field visits, and participatory group work.

A total of 33 participants (28Males and 5Females) attended the training, representing a multidisciplinary mix from the SACP PMU, Provincial Project Implementation Units (PPIUs), Department of irrigation, government authorities such as Rural Infrastructure Development Authority (RIDA) the Zimbabwe National Water Authority (ZINWA) and local authorities i.e. The Rural District Councils. The selection process, managed by the SACP PMU, ensured a diversity of expertise and perspectives from each project area, fostering rich exchanges and collaboration throughout the program.

The training began with a three-day field visit to three SACP project sites i.e Mashonaland East province (Mug Ivhu inhaka Irrigation Scheme last mile road), Mashonaland Central province (Chipiri Irrigation Scheme last mile road), Mashonaland West province (Mamina B Irrigation Scheme last mile road)), allowing the trainers and a subset of SACP and RIDA participants to directly observe local road and water management challenges and engage with the local community representatives. This

field-based assessment was instrumental in adapting the training content to real-world conditions and ensuring practical relevance.

Over five days, participants engaged in a dynamic and hands-on learning experience, moving from foundational concepts of GR4W to practical demonstrations, stakeholder mapping, and the co-development of actionable implementation plans for each project site. The training was highly participatory, emphasizing peer-to-peer learning, problem-solving, and the direct application of new skills.

# 3. Training Methodology and Objectives

This section outlines the training methodology used for the program and provides a discussion of the training objectives and the extent to which they were achieved.

## 3.1. Training Methodology

The training program was carefully structured to address the training objectives through a blend of learning formats and activities, ensuring active engagement and practical skills development. The methodology included:

- **Pre-Training Field Visit:** A three-day field visit (9–11 July 2025) to the three SACP project sites (Mashonaland East Province (Mug Ivhu inhaka Irrigation Scheme last mile road), Mashonaland Central Province (Chipiri Irrigation Scheme last mile road), Mashonaland West Province (Mamina B Irrigation scheme last mile road) was conducted by the trainers and SACP representatives. This visit involved direct observation and assessment of local road-water issues, challenges, and management practices. The insights gained informed the adaptation and tailoring of the training content to local realities and ensured that practical sessions and case studies were relevant.

***Figure 1**: Summary of field observations during the pre-training field visit to different sites visited.*

- **Interactive Classroom Sessions:** Open discussions after each presentation during the whole training encouraged participants to share their experiences and explore the application of GR4W in the Zimbabwean context.

*Figure 2: Interactive class engagement with participants (Photo 1: Michael sharing the different interventions and success in Makueni County, Photo 2: RIDA Deputy Director Roads demonstrating to the participants the institutional arrangement and interdepartmental collaboration.*

- **Practical Group Exercises:** Participants worked in small groups to analyze real-life scenarios, map stakeholders, and develop implementation strategies, fostering teamwork and shared learning.
- **Field-Based Experiential Learning:** On Day 4, a field visit to selected road sites enabled hands-on demonstrations of GR4W techniques, allowing participants to observe, discuss, and practice key interventions. The trainers and SACP PMU picked Mashonaland West for field learning as the road was being opened and graded with GR4W interventions.

*Figure 3: Transect Walk with the participants to appreciate the road and identify different GR4W opportunities (photo 1) and Demonstration on how to make A-Frame (Photo 2) and its utilization in marking the contours (Photo 3).*

- **Peer-to-Peer Learning and International Case Studies:** The program included facilitated exchanges among participants and exposure to international best practices, supporting cross-learning and adaptation.

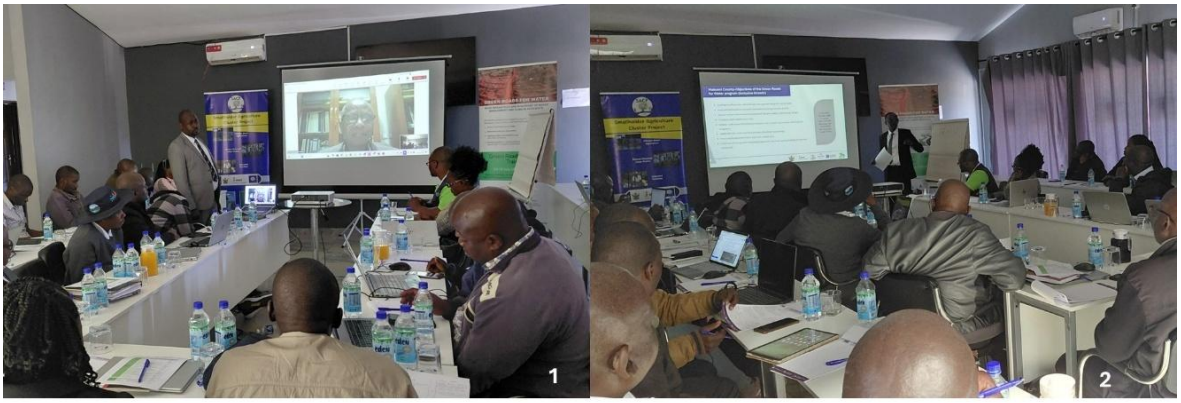


*Figure 4: Dr. Kifle virtually sharing experiences and learnings from Ethiopia (Photo 1) and Eng. Michael Maluki sharing learnings from Makueni County, Kenya (Photo 2).*

- **Daily Feedback and Problem-based Approach:** Each day concluded with structured feedback and reflection sessions, allowing trainers to adjust content and further tailor it to meet the participants' needs.

This integrated methodology is proven to enhance knowledge retention, foster ownership, and empower participants to apply their new skills with confidence.

## 3.2. Training Objectives and Their Achievement

The overarching goal of the training was to strengthen the capacity of SACP staff and key stakeholders in the integrated management of roads and water resources. The specific training objectives were to:

- **Analyze** water-related damage to roads and its downstream impacts and identify opportunities for beneficial interventions.
- **Formulate** technical solutions for harvesting, storing, and using road water for agricultural, livestock, and domestic purposes.
- **Plan** for sustainable road improvement projects in collaboration with local institutions and communities, ensuring intersectoral cooperation and community engagement.

**Achievement of Training Objectives**

The training successfully met its stated objectives, as evidenced by both participant evaluations and the expert judgment of the trainers' team. A comprehensive set of methods described above—including pre-training field visits, interactive classroom sessions, practical group exercises, field-based experiential learning, peer-to-peer exchanges, and daily feedback sessions—was used to achieve these objectives.

Through this combination of approaches, participants gained a thorough understanding of GR4W principles and their practical applications. The high level of engagement observed during discussions, group work, and field activities, as well as the quality of the site-specific implementation plans developed by the end of the training, demonstrated participants' ability to analyze local challenges, formulate appropriate technical solutions, and plan collaboratively with stakeholders. Daily and final evaluations from participants indicated a significant increase in confidence and competence in applying GR4W concepts, while trainers' expert assessment confirmed strong engagement and ownership of the process. This report outlines both the methods used and the outcomes achieved, illustrating how the training enabled SACP staff and partners to translate knowledge into practice and laying a solid foundation for the incorporation of GR4W approaches within the project areas.

# 4. Training Implementation

This chapter provides a detailed overview of how the training was delivered, including the preparatory field visits, the structure and content of the training program, participant engagement, materials provided, and the certification process.

## 4.1. Pre-Training Field Visit

Prior to the main training, a three-day field visit (9–11 July 2025) was undertaken by the MetaMeta trainers and selected SACP representatives. The team visited each of the three out of five SACP project sites i.e Mashonaland East Province (Mug Ivhuinhaka Irrigation Scheme last mile road), Mashonaland Central Province (Chipiri Irrigation Scheme last mile road), Mashonaland West Province (Mamina B Irrigation Scheme last mile road), dedicating one day per site. The objectives of the field visit were to:

- Observe and assess the current state of rural roads and associated water management challenges.
- Identify site-specific issues such as erosion, flooding, water scarcity, and maintenance practices.
- Engage with local stakeholders to understand community perspectives and institutional roles.
- Explore opportunities for applying GR4W principles and select suitable locations for practical sessions during the training.

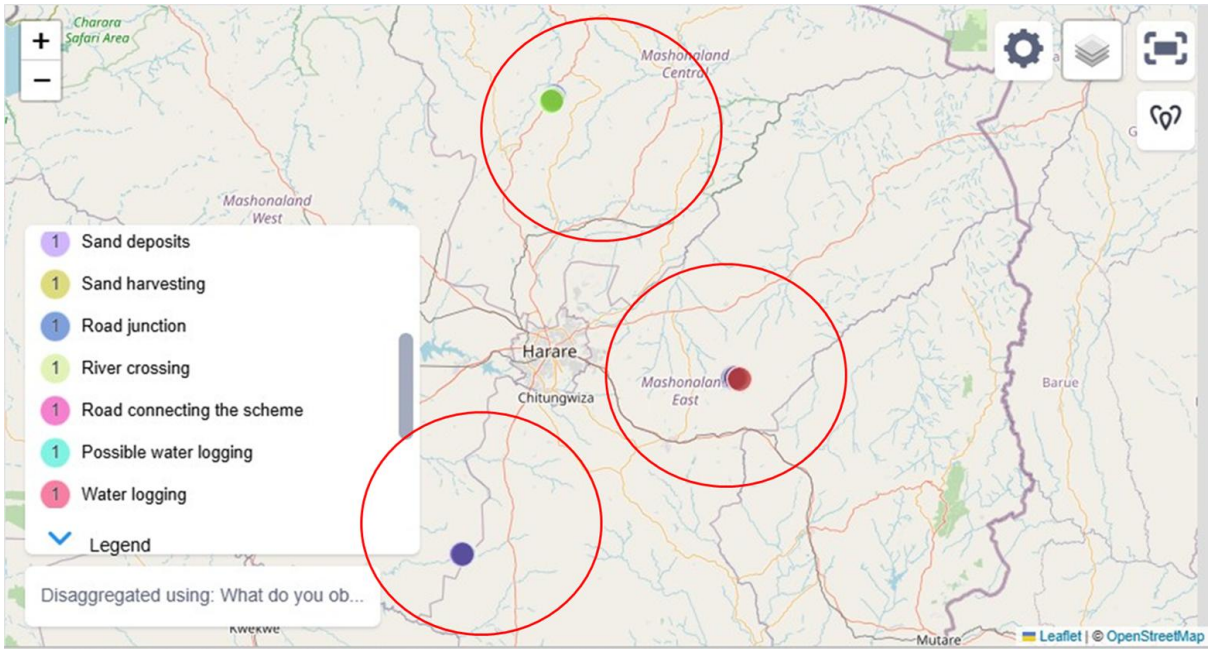


*Figure 5: Sites visited with some of the key observations that were being looked at during the pre-visit.*

Key observations from road stretches visited are highlighted below.

1. **Mashonaland East Province, Murewa District, Ward 19**

The road stretch visited was Mug Ivhuinhaka Irrigation Scheme last mile road which is 2 kilometers long. The road had recently been widened, graded, graveled and had mitre drains for harvesting road runoff with pending culverts works as per the project's scope. The general terrain of the area was flat with minimal surface erosion. The graded road had shallow backslopes and side ditches that could make drained water/runoff erode the road during the rainy season.

The team met the community members within the scheme served by the road, where they expressed enthusiasm for the work done on the road. They also requested that the road be built to serve the community members beyond the area already covered by the SACP project under the irrigation scheme. The community saw the road helping them move farm produce from the irrigation scheme to market and buyers reaching their area with ease. The poor road had made them move their aggregation centers to another area.

The side drains and cross culverts to be installed will be used to harvest runoff to water spreading structures and storage points. The community mentioned that they should be doing road maintenance to keep it in good condition. The provincial team identified community training as a critical activity that they will undertake in their action plans developed.


*Figure 6: Key observations and discussions made during the field visit to Mug-ivhuinhaka road in Mashonaland East Province.*

### 2. Mashonaland Central Province, Muzarabani District, Chipiri Ward 16

In Mashonaland Central, Chipiri Irrigation Scheme last mile road, a 2.6km stretch was visited. The road was yet to be awarded to a contractor to do 12 wide mechanical road widening,7m heavy grading,2.6 kms gravelling and culverts installations. There was a blocked culvert at Chipiri market indicating erosion and sand deposits along the original road, signifying high levels of erosion and runoff from the adjacent hill. Sand scoop holes were visible within the road stretch.

The trainers interacted and engaged with scheme leaders on how they need to contribute to make GR4W work in their area. The road presents several opportunities for GR4W. The runoff generated from the adjacent hill and side drains would be directed to the scheme's dam which is on the downstream side of the road. The road periphery had existing trees that would be well maintained as they serve as roadside trees for shade within the stretch. Measures will be put upstream like half-moons to encourage infiltration and reduce soil erosion. Harvested water can be slowed down through silt traps as it is directed to the dam to ensure that there will not be silting. Several culverts can be installed along the road and cross points to direct water to the dam and other water storage points.

*Figure 7: Observations like blocked culverts just where the road will start to the scheme and interactions seen along Chipiri Irrigation Scheme last mile road.*

### 3. Mashonaland West Province Mhondoro-Ngezi District, Ward 3& 5

The proposed Mamina B irrigation scheme last mile road is a 3 kilometers road stretch connecting the Mhondoro Ngezi main road to the irrigation scheme. It was a proposed new road within the area linking the main Mhondoro Ngezi road to the scheme. It was an existing path leading to the irrigation project which was to be opened/widened, graded, graveled and installation of culverts while implementing GR4W interventions within the road stretch.

The trainers met community representatives who showed the proposed area where the road will be opened. The road would serve the scheme easily as the existing acess road to the scheme is 9 kilometers long, and passes through a stream, while the proposed one is about 3 kilometers. Through the proposed road, the households located along and parallel to the road will benefit from different interventions for GR4W.

The road presents enormous opportunities for water harvesting. There is a general slope which makes water harvesting easy for the farms along the road on both sides. There are several shallow wells that will be recharged by the runoff harvested. The farms adjacent to the roads have nutritional gardens which will benefit from the runoff harvested. The SACP and RIDA proposed to construct a weir along the Ngezi river which will serve to hold more water for the scheme and water livestock within the scheme. The weir will form part of the river crossing as an innovative way to store water while serving the transport function.

The findings from these visits were instrumental in adapting the training agenda and materials to address the actual conditions and needs of the project areas, ensuring the relevance and impact of the learning experience.

*Figure 8: Observations and some interactions made at Mamina B irrigation Scheme last mile Road (Photos by MetaMeta).*

## 4.2. Training Schedule, Key Sessions and Lessons Learnt

The main five-day training (14–18 July 2025) was designed as a dynamic, hands-on, and inclusive experience. Below is an overview of the key sessions, along with the main lessons learnt from each (see **Annex 1** for the detailed program).

- **Day 1:** Introduction to GR4W, overview of water-related road damage, and identification of opportunities for intervention. Regional case studies from Ethiopia and Kenya; Overview of Zimbabwe's rural road and water challenges and Introduction to the SACP's rural roads component. Participants were grouped by province and irrigation scheme, where they discussed and mapped local challenges and identified broad GR4W opportunities.

  Lessons Learned:

  - **Challenges:** At first, participation and interaction were limited, as many participants were unfamiliar with others from different provinces and with the trainers, and some were hesitant to speak up. This was addressed by the trainers discussing a clear mode of communication with the SACP team, as well as setting up interactive working groups and activities. The trainers used icebreakers and local languages to create a conducive atmosphere that helped increase participants' engagement, as seen on the subsequent days.
  - **Opportunities:** Exposure to international case studies (Kenya and Ethiopia), key reference materials and a rapid pre-training field visit presentation helped participants visualize successful GR4W applications and relate them to their own environments. The case study presentations inspired participants to seek exchange learning opportunities in Kenya and Ethiopia. Presentations by the SACP team and RIDA helped set the scene for the application of GR4W within the SACP project areas and Zimbabwe at large.
  - **Best Practices:** Participants were grouped by province, which enhanced peer learning and enabled them to focus on context-specific challenges and opportunities for GR4W. This approach set a strong foundation for the rest of the training.

- **Day 2:** Technical sessions on road water harvesting techniques i.e. road drainage structures such as culverts, ditches, cross-drains; erosion control using bioengineering and concrete structures; storage solutions; Roadside tree growing and GR4W implementation dos and don'ts on principles of GR4W. Practical demonstrations and case studies illustrated the integration of these measures into road design.

  Lessons Learned:

  - **Challenges:** The technical content was intensive for some participants, highlighting the need for more simplified explanations.
  - **Opportunities:** Some participants were already familiar with certain GR4W techniques, such as cut-offs and mitre drains, and were able to explain these concepts to their

peers in their local language, which helped facilitators deliver the technical content more effectively. Additionally, the majority of participants had technical backgrounds, making it easier for them to grasp the various GR4W aspects presented. Practical and local case studies, such as calculating road runoff for specific project sites, made technical concepts more accessible and boosted participants' understanding and confidence.

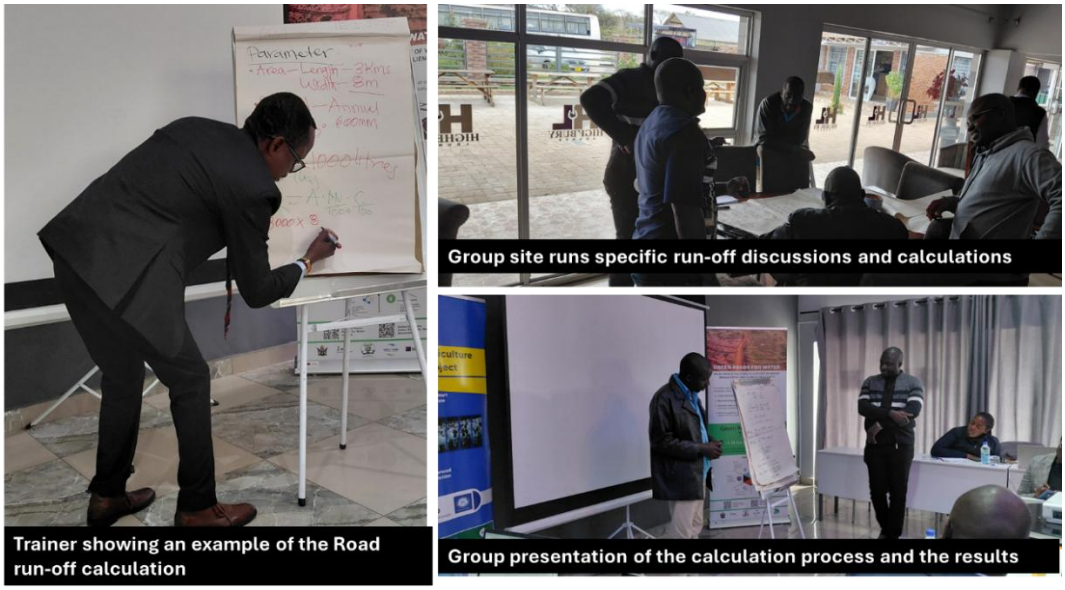


*Figure 9:Practical group work on the calculation of context-specific road run-off and utilization.*

- **Best Practices:** The trainers combined theory with hands-on activities, visual aids, videos, and local context questions, which proved most effective for knowledge transfer.

- **Day 3: Governance**, institutional collaboration and inclusion: Institutional cooperation and governance frameworks, community engagement, case study of exemplary projects (Drain to Gain and RoSPRO). Group activities on stakeholder mapping and inclusive planning strategies and institutional roles, and community engagement strategies. Exercises focused on intersectoral cooperation and inclusive planning.

  Lessons Learned:

  - **Challenges:** There was limited understanding of how to implement GR4W through effective cross-sectoral collaboration among various ministries, departments, authorities, and the SACP PMU, mainly due to overlapping or unclear institutional mandates. This was also one of the first times that different sectors came together to discuss a cross-sectoral topic such as GR4W, which initially made coordination and communication challenging. To address this, representatives from RIDA and DOI were invited to present their institutional roles and explore opportunities for coordination and collaboration.

- **Opportunities:** Stakeholder mapping exercises helped identify gaps and opportunities for better coordination and engagement, especially at the community and district levels. This collaborative way of working not only benefits the sectors and their operations within the context of GR4W but also sets a precedent for adopting similar cross-sectoral approaches to address other topics and challenges in the future.

- **Best Practices:** Presentation of case studies i.e Drain to Gain project video and presentation, allowed participants to learn from real-life experiences and develop actionable strategies, while also highlighting the importance of inclusive and collaborative planning.

- **Day 4:** Field visit to Mamina B irrigation scheme last mile road in Mashonaland West, with on-site demonstrations of GR4W interventions and group analysis of real-world situations. The PPIU for Mashonaland West had mobilized the community of beneficiaries as they were key to sustaining the project. The exercise kicked off with introductions and objectives of the field visit. A transect walk was conducted through the road stretch where participants made general observations, opportunities for GR4W, different structures to be installed and stakeholders to be involved in the implementation of GR4W. The trainers involved the trainees and community members on how to locally assemble an A-frame for marking dead contour lines, which are used to slow water as they are all level grounds. Five teams were formed which marked and set out mitre drains and cut off drains.

*Figure 10: Group field practical engagement on calibrating the A-Frame and marking the contours.*

Lessons Learned:

- **Challenges:** Limited time, due to the distance to the site and travel requirements, restricted the range of interventions trainers could demonstrate during the field

activities. As a result, participants expressed a desire for more hands-on practical sessions in future trainings, such as extending the field activities to two days.

- **Opportunities:** The voluntary participation of community members in the field activities demonstrated the value of local ownership and the importance of community involvement in sustaining GR4W interventions. This engagement can serve as a model for future activities.
- **Best Practices:** The fieldwork activities—including the transect walk, calibration, and use of the A-frame for marking dead contours—showed that GR4W can be effectively implemented using minimal, locally available resources.

- **Day 5:** Group work to develop site-specific implementation plans for GR4W strategies in their respective selected roads under the SACP project, presentations of group outputs, and a closing session with reflections and next steps.

*Figure 11: Engaging group discussions and presentations.*

Lessons Learned:

- **Challenges:** Developing plans that align with SACP project timelines and budget was a challenge. This was addressed by the SACP PMU presenting information on project component 3 (Climate-Proofed Value Chain Infrastructure), the available GR4W budget, and the 2025 annual work plan and targets, such as completing 50 km of climate-proofed last-mile roads by 2025.
- **Opportunities:** The daily group exercises enabled participants to consolidate learning from previous days and adapt GR4W strategies to their local contexts. The final group action plans developed now provide a strong foundation for enhancing GR4W planning in each province.

- **Best Practices:** Structured group work, site-specific plans, and facilitated reflection sessions helped participants synthesize knowledge and commit to practical next steps for GR4W implementation.

This structured progression—from conceptual foundations to practical application and planning—along with daily evaluations and recap sessions, ensured comprehensive coverage of all learning objectives.

## 4.3. Participants and Attendance

A total of 33 participants attended the training, representing a multidisciplinary mix from the SACP Project Management Unit (PMU), Provincial Project Implementation Units (PPIUs), Department of irrigation, government authorities such as Rural Infrastructure Development Authority (RIDA) and Zimbabwe National Water Authority (ZINWA), and selected Rural District Councils (RDCs). SACP managed the participant selection to ensure diversity of expertise and perspectives. Attendance was consistently high throughout the program (see **Annex 2** for daily attendance lists).

The participants actively participated in all the sessions, both the plenary and group discussions. This was also well demonstrated during the field exposure where all the participants joined and actively took part in the planned activities of the day. This fostered an easy collaboration between the participants and the trainers, ensuring the achievement of the participants' expectations and objectives of the training.

## 4.4. Training Materials

A comprehensive set of training materials was developed and delivered to support both the immediate learning objectives and the longer-term capacity building needs of SACP and its partners. The training materials are presented below:

- **Presentations**: All daily presentations were made available to participants, with download links shared by the SACP team at the end of each day. These presentations covered the GR4W concept, international experience, technical solutions, and governance.
- **Technical Guidelines and GR4W Resources**: Participants received a collection of technical guidelines, scientific publications, webinar recordings, and international best practices relevant to green roads and water management. Many of these resources were embedded as links within the presentations for easy access.
- **Field Visit Guides, Checklists and A-frame manual**: Printed guides and checklists were distributed to participants during the field visit, enabling structured observation, data collection, and practical engagement with GR4W assessment techniques.
- **Brochures**: Printed brochures introducing the GR4W approach and summarizing key messages were provided to all participants on the first day of training.

These materials are intended to serve as ongoing reference resources for participants and to support the institutionalization of GR4W within SACP and partner agencies. Furthermore, they laid the

groundwork for the development of a guided learning manual that will facilitate systematic training of SACP staff on GR4W principles and practices.

All materials were shared daily with the SACP team and participants throughout the training and are also compiled in **Annex 3**. The trainers left additional copies of the GR4W materials—such as banners, brochures, and pamphlets—with the SACP team for future reference, which was very well appreciated.

## 4.5. Training Certification

To formally recognize the commitment and participation of attendees, each participant was awarded a Certificate of Participation at the conclusion of the training program. The certificates were distributed on the last day of the training during a brief ceremony attended by trainers, SACP representatives, and participants. A copy of the certificate is included in **Annex 4**.


*Figure 12: Distribution of Certificates to the participants on the last day of the training.*

# 5. Group Work Outputs: GR4W Implementation Plans

Participants were grouped per province, totaling five groups covering all the project areas of the SACP project. Each day had a group assignment as an easy way of summarizing key learning of the day and drawing plans. The task for each day was a prerequisite for the following day's group discussions. Group presentations were made the following day before breaking into groups of discussions that day. Below are the questions/topics discussed each day.

**Day 1:** List Opportunities for Road Water Management in Zimbabwe (focus on SACP's areas). Using a Venn diagram (pizza/chapati analysis), group the opportunities in different sizes where the largest size represents the highly and easily achievable opportunities, and the smallest pizza represents opportunities that are not easily achievable and take a longer time. After organizing the pizzas, arrange them in order of implementation, assuming you have been given all the needed resources.

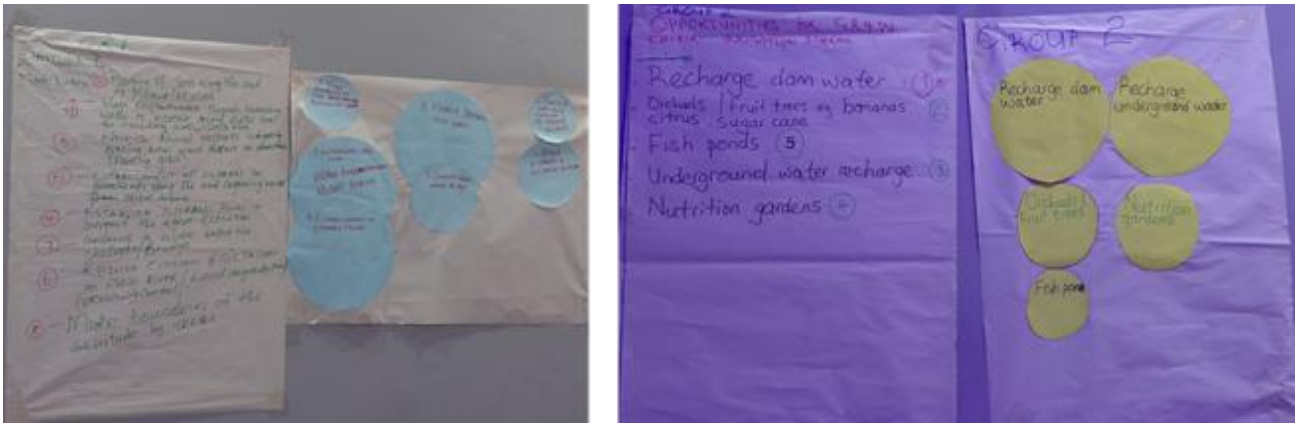


*Figure 13: Example results of day group activities.*

**Day 2:** Discussion on Zimbabwe/SACP experience in the GR4W measures discussed by the trainers

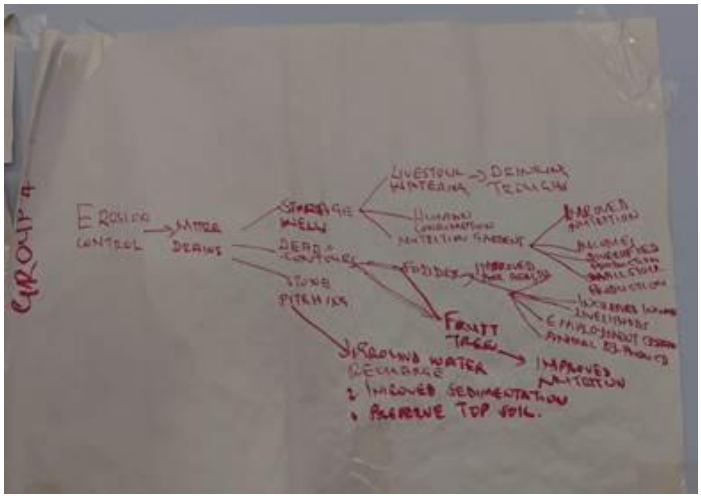


*Figure 14: Group example output of case analysis on experience and application of GR4W measures in Zimbabwe (SACP Project).*

**Day 3: Mapping** relevant institutions and stakeholders including their roles and responsibilities, focusing on SACP's areas and Identifying strategies for engaging key stakeholders and ensuring inclusive participation.

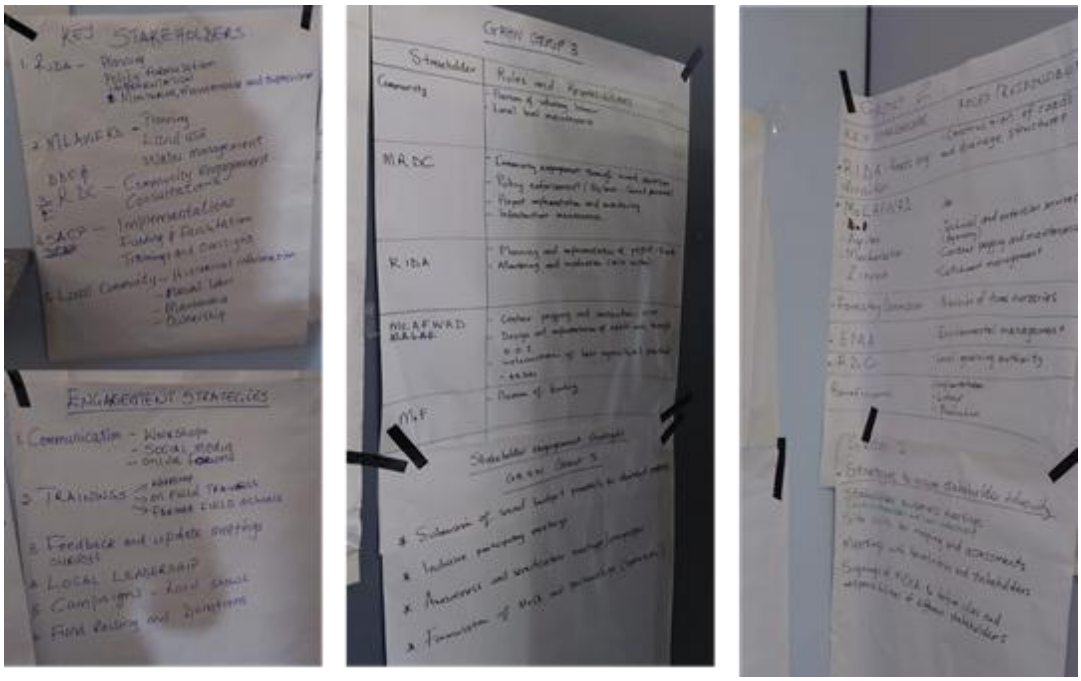


*Figure 15: Example group outputs on mapping of different stakeholders, their roles and engagement strategies.*

**Day 4:** The participants had individual tasks to accomplish during the field visit in Mamina B irrigation scheme last mile road. Each participant was to look at the visible observations along the road, opportunities for GR4W, structures to be developed, and the stakeholders to be involved to achieve interventions and impact along the selected road.

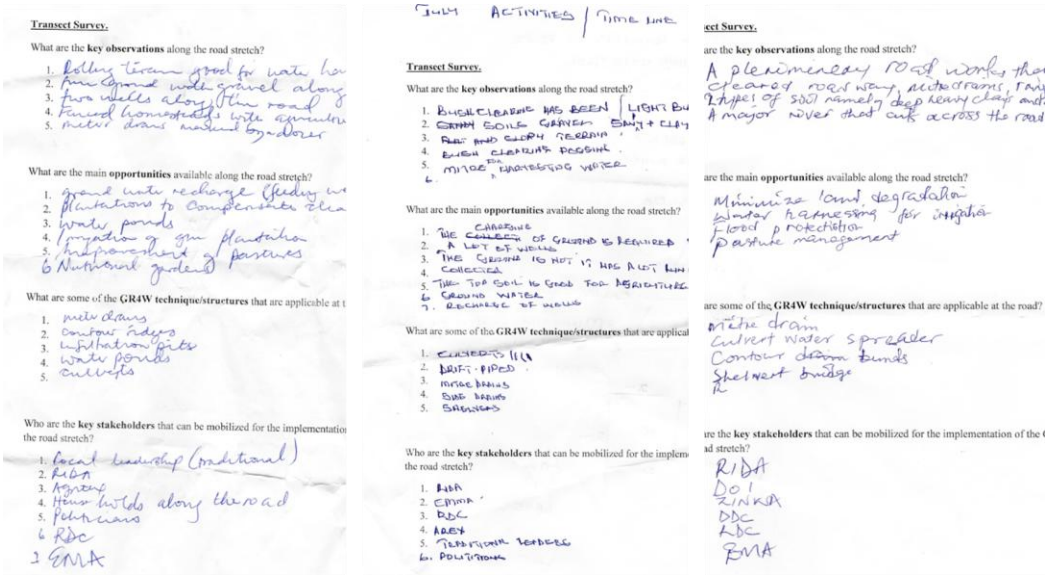


*Figure 16: Example responses from the participants during the transect walk in the field*

**Day 5:** On this final day, participants were tasked with developing a draft action plan for implementing GR4W measures at one of the project sites. The plans included:

- Assessment of site-specific challenges and priorities
- Selection of appropriate GR4W interventions (e.g., roadside water harvesting, erosion control, community mobilization) and the target
- Definition of roles and responsibilities for local institutions and community members
- Resources needed and timelines
- Strategies for monitoring, maintenance, and scaling up
- Linkage to other SACP project components

**GR4W SACP PROJECT ACTION PLAN**

**JULY-DECEMBER 2025**

**GROUP NAME**: GROUP 3 Date: 18/07/2025

**LOCATION**: MUREHWA DISTRICT, MASHONALAND EAST PROVINCE

**NAME OF THE ROAD**: MUG IVHU INHAKA FEEDER ROAD

| Intervention | Target | Activities | Who is Responsible? | Roles of staff/people involved | Resources required | When | M & E | Program Linkage |
|---|---|---|---|---|---|---|---|---|
| Existing road network upgrade | 4km | -Bush clearing<br>-Road formation<br>-Stockpiling<br>-Gravelling<br>-Drain cutting (Mitre and side drains)<br>-Construction of cut off drains<br>-Construction of storage ponds<br>-Construction of culverts<br>-Reclamation of borrow pit | -Community<br>-Local authority<br>-RIDA<br>-EMA<br>-DOI<br>-DOM<br>-MLAFWRD(SACP)<br>-Ministry of Finance | **Community**-Provision of voluntary labour and local level maintenance.<br>**RIDA**-Planning and implementation Monitoring and evaluation<br>**RDC**-Community engagement through councillors<br>-Policy enforcement/bylaws<br>-Project implementation and monitoring<br>-Infrastructure maintenance<br>MLAFWRD-DOM-Contour | -Plant and equipment (Dozer, grader, tippers etc.<br>-Construction materials (cement, stones, quarry, sand etc.<br>-Labour<br>-Financial support<br>-Sundries (fuel, oils, tools etc | -By 30 October 2025 | -Progress vs Expenditure<br>-Quality control | Improved Market and inputs access<br>Climate proofed infrastructure |

*Figure 17: Sample template filled by different groups on the top 3 selected interventions.*

Summaries of each group's plan are provided in **Annex 5**.

# 6. Training Evaluation and Results

This section provides a summary of the participants' feedback following the five-day training. The training included both classroom sessions, group work activities, and practical field exercises. The feedback was collected through different methods, i.e. Mentimeter for daily evaluation, sticky notes for the daily recaps and Kobo Collect for the final training evaluation, with up to 28 participants providing responses. All results are presented in Annex 4.

At the end of each day, participants completed feedback forms assessing the relevance, clarity, and usefulness of the sessions. These daily evaluations served not only as a tool for immediate feedback, but also as a mechanism for the trainers to continuously adapt and refine the training content and delivery. This iterative approach allowed the facilitators to identify and address emerging needs, clarify challenging topics, and incorporate participant suggestions, thereby making each subsequent day increasingly tailored and meaningful for the group. 100% of the participants viewed the green roads materials shared to be very useful in their work, 69% and 29% viewed the rapid pre-training assessment field visit presentation as very helpful and extremely helpful respectively.

100% of the participants considered daily session worthwhile, with participants emphasizing new concepts, practical applications, and its relevance to climate change and mitigation.81% of the participants shared they had gained specific ideas on GR4W road drainage systems and erosion at different confidence level (fig 19).96% of the appreciated how extremely valuable community engagement and participation is key to the actualization of GR4W approach.

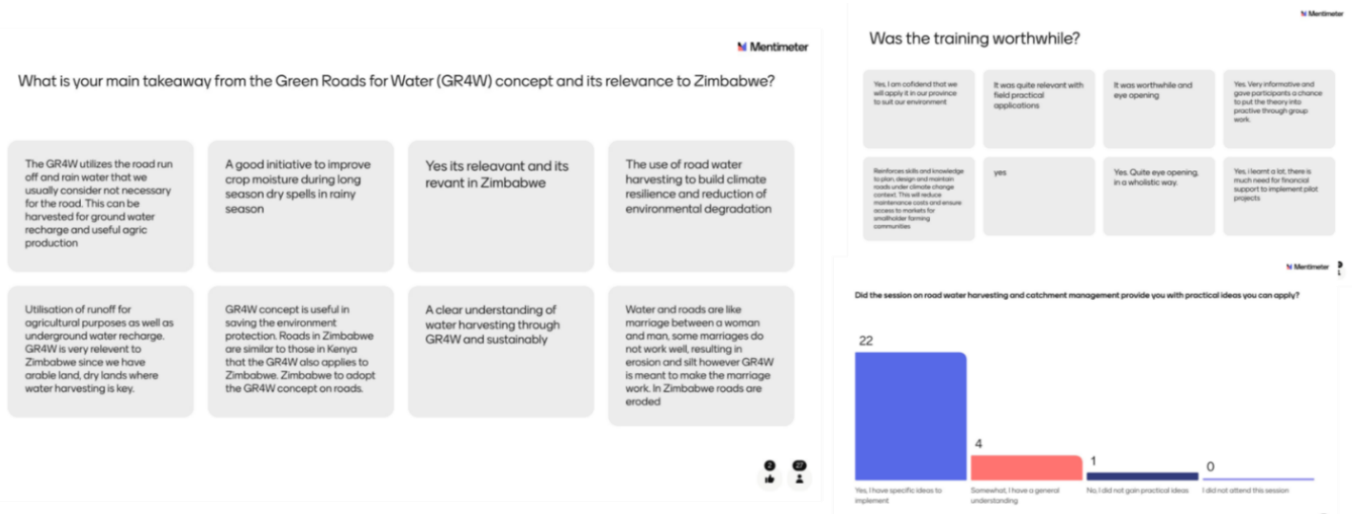


*Figure 18: Some of the daily evaluation responses*

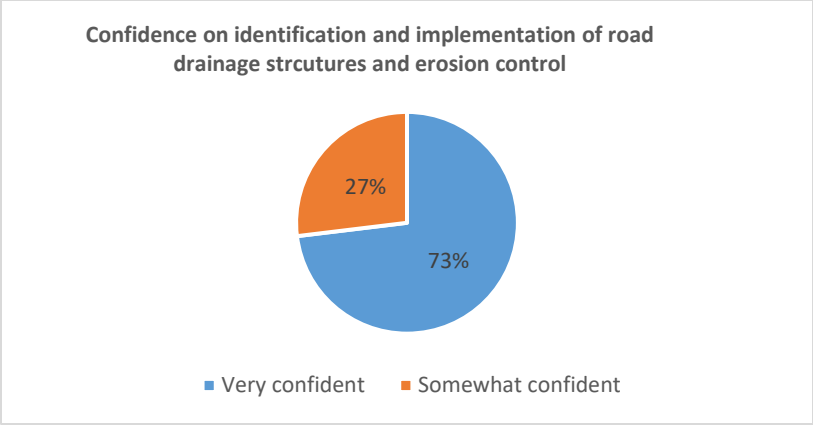


*Figure 19: Percentage number of participants varied confidence in identification and implementation of road drainage structures and erosion control*

The final evaluations demonstrated that the training was highly successful, with participants valuing and appreciating the participatory approach and practical focus 87% of the participants felt that the training objectives were strongly met, and the training was useful to their work, 83 % agreed that the course is worthy of recommending to more colleagues. The participants acknowledged the comprehensive content of the training, which combined theory and practice, terming it a great eye-opener (74% of the participants strongly agreeing on the well-organized nature of the training and its ease to follow and 83% viewing the group sessions helpful and relevant) .The hands-on field exercise was well-received by participants, who saw its value in relation to their work and as a means of community engagement, particularly in the areas of A-Frame calibration and contour marking.

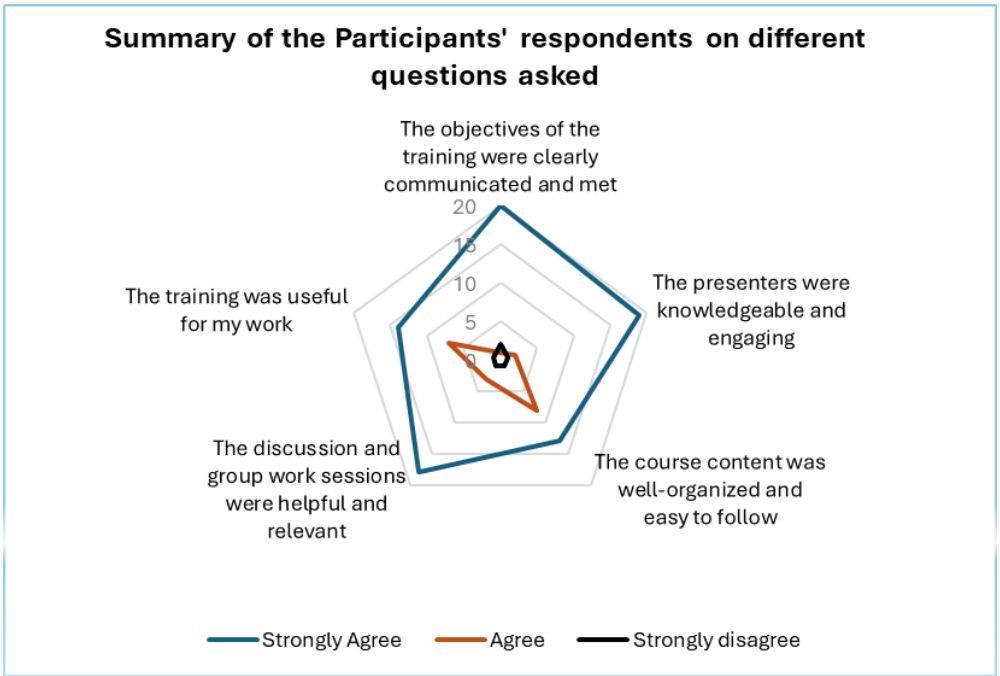


*Figure 20: Final evaluation of responses on the training objective and the content of the training.*

From the recap and qualitative respondents, some of the most useful aspects mentioned by the participants include case studies from Kenya and Ethiopia, field-practical activities such as the use of A-Frame, different GR4W interventions, group engagement assignments and structures and stakeholder and community engagement.

Quotes form the participants

"I *am ready to implement GR4W in my areas since I have gained the capacity and zeal"*

*"I am fully understanding the concept and I will implement and document the different interventions from a well-informed perspective"*

*"I am very much prepared and ready because I have been equipped with the needed knowledge and implement"*

**Recommendations from the participants during the evaluation**

- Have more time for field activities, such as two days, so that they have a chance to do the actual work of different structures and interventions.
- Add more training and exchange learning to witness the first-hand achievement in Makueni and Ethiopia. For example, Makueni County, was highly mentioned by the participants as the most inspiring and applicable they would like to learn from due to its practicality, community adoption and livelihood transformation (e.g., banana production from road water harvesting), and simple, cost-effective and locally led methods.
- Inclusion of more government ministries and departments that were not included in the training, like the Department of Mechanization and Youth.
- Add more topics on the use of mechanized equipment and engineering software such as gulley reclamation, marking of contours and excavation of the mitre drains and cut offs and how to incorporate GR4W in high rainfall areas.

The participants left the training with high confidence, well prepared and energized to implement the GR4W approach in their areas, with some terming it as "a full package of the real deal". Overall, the training was an outstanding success that provided immense practical and theoretical value to all participants.

# 7. Conclusions and Recommendations

The GR4W training successfully met its objectives, equipping participants with the knowledge, skills, and motivation to implement integrated road-water management solutions in Zimbabwe. The strong engagement during the training and the quality of group-developed plans indicates a solid foundation for future action.

**Critical Reflection on Training**

While the training received highly positive feedback from participants, as facilitators with experience in similar programs, we identified several areas for further improvement.

- First, we recommend that planners and clients allocate sufficient time for both the planning and execution of future trainings, allowing for greater flexibility and adaptability in the program schedule. Although we successfully developed all materials to our standards, the very limited lead time made the preparation process considerably compressed.
- Second, future trainings would benefit from a more spacious venue and the availability of better-quality facilitation tools—such as high-resolution projectors, reliable sound systems, and flipcharts. A larger space would allow for different seating arrangements required for interactive sessions and group work, thereby improving participants' and trainers' engagement and overall learning dynamics. While these factors did not negatively affect the success of this training, addressing them would further enhance comfort, interactivity, and learning outcomes.

**Key Recommendations for SACP and the Next Steps**

Building on the momentum generated by this training, and with a secured budget and clear project targets, the responsibility now shifts to the SACP team to drive implementation forward. Based on both participant feedback and our experience, we recommend the following next steps:

- **Develop a Tailored Guided Learning Manual:** Develop a tailored guided learning manual based on the training experience to support wider capacity building. This manual should be modular and practical, starting with participants collecting local examples of road-water challenges, which can be used as case studies throughout the manual. The core content would cover topics such as introduction to the GR4W Approach, available technologies, governance—mirroring the main modules of the training.

  Each module should combine concise technical guidance, practical tools (like road prioritization and inventory templates), and step-by-step assignments for field applications. The manual should encourage a guided learning approach, blending self-study, practical fieldwork, and peer exchange, supported by facilitators through in-person sessions and remote feedback. Finally, annexes should include checklists, sample action plans, and further reading, ensuring the manual remains a hands-on resource for ongoing learning and implementation across SACP project areas. An example of a similar manual developed for Ethiopia can be found here.

- **Institutionalize GR4W Principles:** Institutionalize GR4W principles within SACP and partner agencies through further training, integration into existing policies and development of new joint policies (e.g. Green Roads for Water national Guideline)

- **Foster Peer Learning and Knowledge Exchange:** Create opportunities for peer-to-peer learning and knowledge exchange between SACP and other relevant programs within Zimbabwe and internationally. In particular, prioritize the implementation of the planned exchange visits to Kenya and Ethiopia in a future phase. These visits are expected to provide the SACP team with practical exposure to proven Green Roads for Water (GR4W) interventions, facilitate direct engagement with experienced practitioners, and offer insights into successful governance, community involvement, and technical design.

  By seeing these approaches in action and interacting with peers in similar contexts, SACP staff can deepen their understanding, build practical skills, and strengthen their capacity to implement and scale effective GR4W solutions. Such exchanges also help build professional networks, foster collaboration across countries, and inspire adaptation of best practices to the local Zimbabwean context—making them a highly valuable investment for future programming**.**

- **Engage Higher Education Institutions:** Partner with universities and research institutions to document and study GR4W interventions, supporting innovation and evidence-based improvements.

- **Support Community Capacity Building:** Empower trained participants to deliver local community awareness and training, ensuring sustainability and local ownership of GR4W initiatives.
- **Localize Implementation:** Anchor GR4W activities within local government units for continuity and long-term impact.
- **Allocate Budget for Technical Support:** Ensure dedicated funding for technical support, review forums, and follow-up activities for trained participants.
- **Establish Provincial Technical Working Groups:** Set up GR4W working groups and train local champions/Trainers of Trainers (TOTs) in each province to drive implementation at the grassroots level.

In summary, the training was well-delivered and highly relevant to the participants' day-to-day work. With the new skills, tools and knowledge gained, the strong engagement shown during the training, and the comprehensive plans developed, the SACP team is now well-equipped to move forward. The secured budget and clear project targets, including climate-proofing 89 kilometers of road by 2027, provide a strong foundation for successful implementation. Early progress, such as the PPIP initiative in Mashonaland West, demonstrates readiness for action.

The phased approach—beginning with the first 50 kilometers of GR4W implementation in 2025—will also allow for adaptive learning and continuous improvement. Achieving this will require careful planning and the incorporation of the above recommendations. Key priorities include building

community capacity and awareness in each province, facilitated by provincial representatives who attended the GR4W training, and organizing working groups with both community members, local champions and ToTs to support the planning, design, and implementation of GR4W. These steps are fundamental for fostering ownership and ensuring that communities are engaged and invested in GR4W implementation. It is essential for SACP to work closely with communities, raising awareness of the direct benefits of GR4W interventions, and involving them at every stage—from planning to implementation and maintenance.

As part of the implementation of the 50 km GR4W road stretch, it is recommended that a comprehensive impact assessment be conducted once SACP has finalized a detailed implementation plan. At this stage, such an assessment could not be carried out due to very limited information about the project area, as only a rapid assessment was possible within the scope of the training. A proper and thorough assessment should be undertaken by SACP after finalizing the implementation plan, starting with a baseline study prior to the start of implementation.

This baseline will provide essential reference data against which short- and long-term impacts can be measured. The impact assessment should consider a range of aspects, including road-related benefits (such as reduced maintenance costs and fewer road closures), agricultural and livestock outcomes (such as increased water availability and productivity), improvements in nutrition (as a result of enhanced agricultural production), and environmental benefits (such as reduced land erosion and sedimentation). Conducting a thorough impact assessment will be crucial for capturing the full value of GR4W interventions and informing future scaling and policy integration.

**Proposed Timeline for 50 km of GR4W Implementation**

- **August – September 2025:** Community capacity building and awareness activities, alongside the strengthening of existing working groups in each province, with clear roles and responsibilities established. By the end of this period, each province should have an initial plan of activities and interventions.
- **September 2025**: Baseline study for the impact assessment, collecting data on key indicators prior to implementation.
- **October 2025:** Site suitability analysis and transect walks along the 50 km road stretch to identify appropriate measures, and, if necessary, adjust the implementation plans developed during the training.
- **November – December 2025:** Implementation phase, taking into account the rainy season and its potential effects. Depending on local weather conditions, begin the implementation of GR4W interventions, leveraging selected contractors and in-house equipment from RIDA to achieve the 50 km target.
- Continuous community-based monitoring to document the before-and-after situation and the impact of the interventions.

With these steps and a commitment to inclusive, well-coordinated action, the SACP team is well positioned to translate the outcomes of this training into tangible, lasting impact for integrated road-water management in Zimbabwe.

# 8. Annexes

## 8.1. **Annex 1:** Detailed Training Program/Schedule

The training was conducted over five days. The detailed training schedule for each day is provided in the attachment below.

Final Training Scedule_July2025.dc

*Attachment 1: 5-day training schedule in Kadoma*

## 8.2. **Annex 2:** Attendance Lists

Participants signed attendance daily over the five days training. Below is the complete attendance list for all the 5 days of the training.

Day 1_5 Attendance list.pdf

*Attachment 2: Day 1 to day five attendance list of all the participants*

## 8.3. **Annex 3**: Training material

A comprehensive set of training materials was developed and delivered to support both the immediate learning objectives and the longer-term capacity-building needs of SACP and its partners.

All the training materials can be accessed here.

## 8.4. **Annex 4:** Training Certificate

A copy of the training certificate is provided below:

Certificate of Attendance

This is to certify that

.....

has fully participated in the **Green Roads for Water (GR4W) Training** held in Kadoma, Zimbabwe, from 14 to 18 July 2025.

***Organized by MetaMeta, with support from the Smallholder Agriculture Cluster Project (SACP), funded by the International Fund for Agricultural Development (IFAD), the OPEC Fund for International Development (OFID), and the Government of Zimbabwe.***

Frank van Steenbergen
Technical Director, MetaMeta

Marc van der Stouwe
Managing Director, MetaMeta

## 8.5. **Annex 5**: Evaluation Forms and Summarized Results

Daily evaluations were conducted using Mentimeter, and the final training evaluation was conducted using Kobo Collect. Below are all the results from the participants on Mentimeter and Kobocollect.

Combined daily evalaution and the f

*Attachment 3: Combined results of the daily evaluation form Mentimeter and final training evaluation form Kobo collect*

## 8.6. **Annex 6:** Group Work Outputs (Implementation Plans for Project Sites)

Group exercises and discussions were held each day, progressively building toward the final day's group work. On the last day of the workshop, participants were divided into five groups—each representing one of the project's five provinces—to develop an implementation plan for incorporating GR4W in their respective provinces. All of these plans are included in the attachment below.

Combined 5 groups
GR4W SACP PROJEC

*Attachment 4: GR4W Implementation Action plan from all the five groups representing each site of the SACP project in each province*