



Final Report: "Action Research Projects" Development Training

June 2024



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Acronyms and Abbreviations

ADPP	Aid for the Development of People for People
AR	Action Research
CAWM	College of African Wildlife Management
CBOs	Community Based Organisations
CSOs	Civil Society Organisations
CWMAC	Community Wildlife Management Areas Consortium
IPLCs	Indigenous People and Local Communities
LEAP	Law Enforcement and Anti-poaching
M&E	Monitoring & Evaluation
NRM	Natural Resources Management
OACPS	Organisation of African, Caribbean and Pacific States
RINaWa	Strengthening Research and Innovation in Natural Resource Management and Waste Management
RISDP	Regional Indicative Strategic Development Plan
SADC	Southern African Development Community
TFCA	Transfrontier Conservation Area
TNA	Training Needs Assessment
WM	Waste Management
WWF	Worldwide Funds for Nature

Executive Summary

The Strengthening Research and Innovation in Natural Resources Management and Waste Management in Southern Africa Region (RINaWa) project, implemented across Mozambique, Tanzania, Zambia, and Malawi, aims to improve sustainable waste and natural resources management in the targeted countries. This report details the outcomes of a comprehensive capacity-building initiative focused on Action Research methodologies, a vital component of the RINaWa project.

Project Context and Objectives

The Southern African Development Community (SADC) region faces significant challenges in natural resource management (NRM) and waste management (WM). The RINaWa project, a collaboration between the SADC Secretariat, the European Union, and various national partners, seeks to address these challenges through innovative research and capacity building. The specific objectives of this initiative included:

- a. Familiarising participants with Action Research principles and methodologies
- b. Developing practical skills in research design and implementation
- c. Ensuring alignment of research projects with SADC and national priorities
- d. Fostering collaboration and knowledge exchange among diverse stakeholders
- e. Generating tangible outputs in the form of Action Research project plans
- f. Strengthening the enabling environment for high-quality, applied research in the region

Methodology

The initiative employed a multi-faceted approach, including:

- Literature review and baseline assessment to identify capacity gaps
- Development of comprehensive training materials and guidelines
- Facilitation of four country-specific training workshops
- Creation of a standardised guide for Action Research project development
- Development of a monitoring and evaluation framework

Key Outcomes

Training Workshops: Four workshops were conducted, one in each target country, reaching over 100 participants from government agencies, academic institutions, civil society organisations, and the private sector. These workshops covered Action

Research principles, problem identification, research design, stakeholder engagement, and project planning.

Capacity Building: Participants gained valuable skills in Action Research methodologies, collaborative problem-solving, and evidence-based decision-making. The workshops fostered a shared understanding of the potential for Action Research to address real-world NRM and WM challenges.

Stakeholder Engagement: The initiative successfully brought together diverse stakeholders, creating new networks and partnerships across sectors and disciplines. This cross-pollination of ideas and experiences will drive innovation and collaboration in future NRM and WM projects.

Action Research Projects: Participants developed draft Action Research project plans focused on pressing local issues, such as solid waste management in urban areas and human-wildlife conflict in protected areas. These plans serve as a foundation for future research and intervention efforts.

Standardised Guide and M&E Framework: The project delivered a comprehensive guide for Action Research project development and a monitoring and evaluation framework tailored to Action Research's unique characteristics. These tools will support the ongoing implementation and assessment of Action Research initiatives in the region.

Key Recommendations

1. Institutionalise Action Research approaches within government departments, academic curricula, and NGO practices.
2. Establish communities of practice to facilitate ongoing peer learning and knowledge sharing.
3. Leverage technology for broader dissemination of Action Research findings and methodologies.
4. Strengthen science-policy interfaces to ensure research findings inform policy and practice.
5. Integrate indigenous knowledge systems more deliberately into Action Research methodologies.
6. Expand the thematic focus to include related areas such as climate change adaptation and circular economy approaches.
7. Enhance regional integration through cross-country learning and collaboration mechanisms.
8. Invest in long-term impact assessment to understand the sustained effects of Action Research interventions.

Conclusion

The RINaWa project's capacity-building initiative has laid a strong foundation for applying Action Research to address NRM and WM challenges across the SADC region. The project has catalysed a movement towards more participatory, evidence-based, and locally relevant solutions by equipping a diverse group of stakeholders with the necessary skills, knowledge, and networks. The potential impact of this work extends beyond environmental outcomes, promising to contribute to economic diversification, job creation, and improved quality of life for communities dependent on natural resources. As the region grapples with complex sustainability challenges, the tools, methodologies, and collaborative approaches developed through this initiative will be invaluable in driving positive change and fostering resilient, sustainable communities.

1. Introduction

1.1 Background of the RINaWa Project

The natural resource riches of Africa provide several ecosystem benefits such as clean water, energy, food, medical plant products, and tourism. However, economic development has raised environmental pressures, necessitating competent natural resource management and environmental conservation. Human activities have worsened socio-ecological instability, compromising ecosystems' ability to provide basic commodities and services. As a result, African natural capital and development potential have been jeopardised due to biodiversity loss and ecological deterioration. This impedes achieving the Southern African Development Community (SADC) regional economic development and integration agenda.

SADC is concentrating on promoting natural resource conservation and sustainable environmental management through adopting protocols on wildlife conservation, forestry, fisheries, shared water courses, and environmental management. The region is creating and amending significant strategic documents to address conservation and environmental management concerns. These include revising the SADC Biodiversity Strategy, the Law Enforcement and Anti-poaching (LEAP) Strategy, the Transfrontier Conservation Area (TFCA) Program, the Forestry Strategy, and the SADC Framework Strategy on Wildlife-Based Economy. Within ten years, the Regional Indicative Strategic Development Plan (RISDP 2020-2030) targets actions to promote natural resource management and waste management.

SADC addresses NRM and WM concerns through regional Protocols, policies, and initiatives that accord with the Organisation of African, Caribbean and Pacific States (OACPS) Secretariat's goals. Innovative solutions are required to combat increasing natural resource deterioration and environmental pollution. As envisioned in the SADC Vision 2050, adopting innovative activities is crucial in lowering the increasing demand for natural resources and the environment in the SADC area. As a result, the African, Caribbean and Pacific Group of States Innovative Fund, through the OACPS Research and Innovation financing allocation, offers SADC a timely opportunity to develop and execute these innovative solutions, successfully tackling natural resource and environmental conservation challenges.

The SADC Secretariat and the European Union have signed a Contribution Agreement for a project in Mozambique, Tanzania, Zambia, and Malawi entitled Strengthening Research and Innovation in Natural Resources Management and Waste Management in the Southern Africa Region (RINaWa). The project, which began in May 2022 and is scheduled to end in April 2025, is a collaboration between the World Wide Fund for Nature (WWF)-Mozambique and the College of African Wildlife Management (CAWM)-Mweka, as well as four national partners from SADC countries. The Southern African Wildlife College, Cooperativa de Educação Ambiental Repensar, Skyberry

Botswana Proprietary Limited, and the Community Wildlife Management Areas Consortium (CWMAC) of Tanzania are among these organisations. One of the primary outcomes of this project is strengthened NRM and WM through the application of Action Research interventions led by Skyberry Botswana. Therefore, this report provides a detailed account of the Action Research training activities conducted in the project countries. The report describes processes and steps that unfolded in preparation for the training and the training process, as well as the learning outcomes and lessons learnt. The report further provides key recommendations on how Action Research can be better used to address NRM and WM.

1.2 Objectives of the RINaWa Project

The overarching objective of the RINaWa Project is to improve sustainable waste and natural resources management in the targeted countries of Southern Africa.

The consultancy focused on:

- Conducting community-based Action Research activities to establish and disseminate innovative mechanisms and integrate principles and techniques derived from indigenous knowledge systems into natural resources management and law enforcement for NRM+WM.
- Supporting incorporation into the existing training programmes innovative techniques for effective NRM+WM operations.
- Development and roll out of tailor-made training programmes based on the research findings.
- Promoting incorporation and harmonisation of national legal instruments on innovative measures to facilitate NRM+WM practices and law enforcement.
- Developing community-based natural resources monitoring and evaluation tools, integrating them into the SADC M&E system, and supporting data collection and dissemination.

1.3 Scope of Work and Deliverables

The overarching scope of this assignment was to develop elaborate disruptive solutions across the NRM and WM sectors, with the national and local groupings from the target countries through capacity building. The process of creating disruptive solutions for NRM and WM was informed by the outcomes of the baseline study conducted by CAWM-Mweka, which identified the development of Action Research projects and Action Research capacity building as crucial to developing disruptive

solutions. The process was further bolstered by A Training Needs Assessment (TNA) involving key NRM and WM stakeholders. Key deliverables of this consultancy included the following:

- a) Inception Report
- b) Training Needs Assessment Report
- c) Action Research Training Material
- d) Action Research Guidelines
- e) Action Research Training in Malawi, Mozambique, Tanzania and Zambia
- f) Action Research Monitoring and Evaluation Framework

2. Approach and Methodology

The Team undertook stakeholder engagements with national and local groupings in the targeted SADC Member States. Key stakeholders included Community Based Organisations (CBOs), Civil Society Organisations (CSOs), Indigenous People and Local Communities (IPLCS) and other national and local groups. Stakeholder insights were incorporated into the approach and were further bolstered and informed by the baseline study outcomes. All these results informed the TNA, which was essential to bridge information and data gaps. This approach strengthened the Acton Research Project development guide for the target groups. Six key principles drove the adopted approach towards Action Research training:

- a. Carefully managing stakeholder relationships and ensuring thorough preparation for each assignment phase.
- b. Skilfully evoking comprehension of the assignment goals and approach and meaningful stakeholder participation.
- c. Ensuring that the integrity and reliability of data and information collected are safeguarded and accurately reflected in all deliverables.
- d. Maintaining objectivity and flexibility to allow for emerging issues that affect the implementation and outcome of the assignment and its approach.
- e. Ensuring the timely submission of all deliverables; and
- f. Committing to the highest standards of professionalism and integrity concerning data collection, stakeholder consultations, workshop facilitation, reporting and general relations with the contracting party and related target groups.

2.1 Approach to Training Needs Assessment

A thorough literature review informed the development of Action Research training for targeted groups within the WM and NRM sectors. This review served as a foundation for understanding the region's capacity needs. While a comprehensive TNA, as Clarke (2003) described, would have been ideal, project constraints necessitated an alternative approach.

In preparation for a more detailed TNA, questionnaires were developed to gather information that would provide insights into training needs for the NRM sectors (Annex 1) and WM (Annex 2). These questionnaires were designed to collect data at three levels: organisational, operational, and individual (Figure 1), with a particular emphasis on the organisational/sector level. The aim was to identify critical skills shortages and assess their relative importance to the WM and NRM sectors across Malawi, Mozambique, Tanzania, and Zambia.

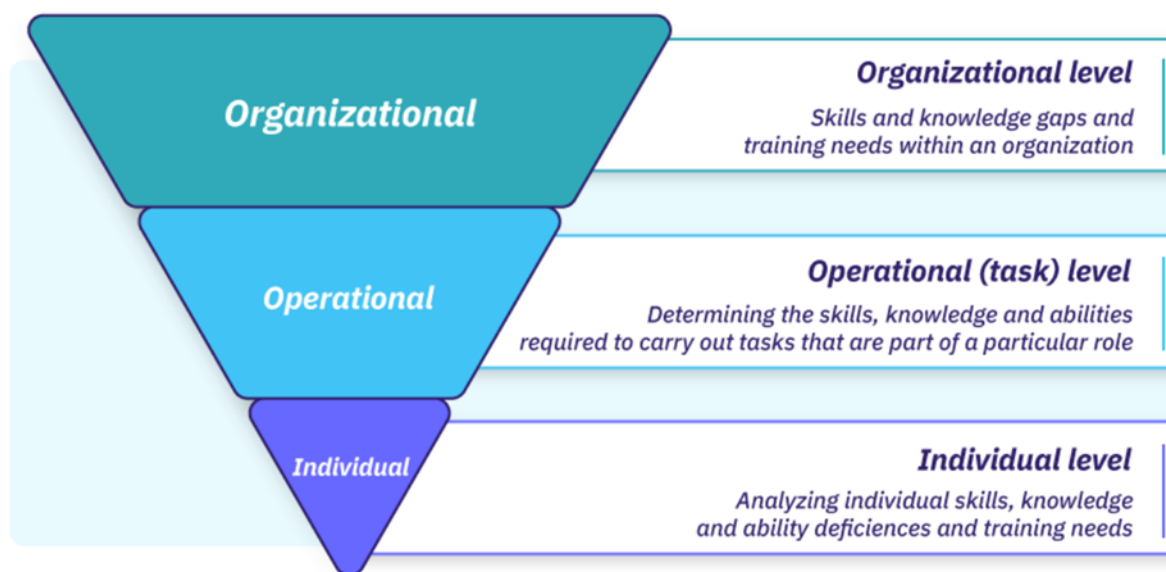


Figure 1. The three levels of user needs assessment (source: Al-Khayyat, 1998).

Although the complete TNA process could not be implemented as initially planned, developing these questionnaires demonstrates the project's commitment to a structured, data-driven approach to capacity building. The literature review and insights from the baseline study conducted by the College of African Wildlife Management (CAWM) provided a solid foundation for identifying critical gaps and developing training materials.

Conducting a comprehensive TNA and utilising tools such as the questionnaires developed would be highly beneficial for future iterations of this training programme. Such an assessment would allow for a more nuanced understanding of specific training needs across different stakeholder groups and countries, enabling even more tailored and effective capacity-building interventions.

We recommend that future activities in this domain prioritise implementing a complete TNA process. This would involve distributing the developed questionnaires, conducting in-depth interviews with key stakeholders, and analysing the resulting data to fine-tune training content and delivery methods. This approach would ensure that capacity-building efforts are closely aligned with the evolving needs of the WM and NRM sectors in the SADC region.

2.2 Development of Training Materials and Guidelines

The training materials, predominantly PowerPoint presentations, were developed based on information from the literature. Several papers were used as examples of Action Research for NRM and WM. A paper entitled "*Participatory Action Research*

generates knowledge for Sustainable Development Goals” published in *Front Ecol Environ* 2023; 21(7): 341–349, doi:10.1002/fee.2591 by Snapp et al. 2023 was used as a key illustration of successful action initiative for natural resources.

2.3 Facilitation of Training Workshops

The consultants conducted AR training workshops based on training needs identified during the TNA phase. The training was at two levels. The first cohort was a broader stakeholder base comprising 27 organisations from the four target countries. During the first cohort training, participants were introduced to the concept of Action Research, and a clear distinction between Action Research and traditional research was made, particularly the non-linear nature of Action Research. Participants were taken through various steps of Action Research (Figure 2). For this assignment, the consultants adopted Stephen et al.'s (2022) definition of Action Research as a systematic multi-staged cyclical process that seeks to improve practice by implementing informed and incremental change.

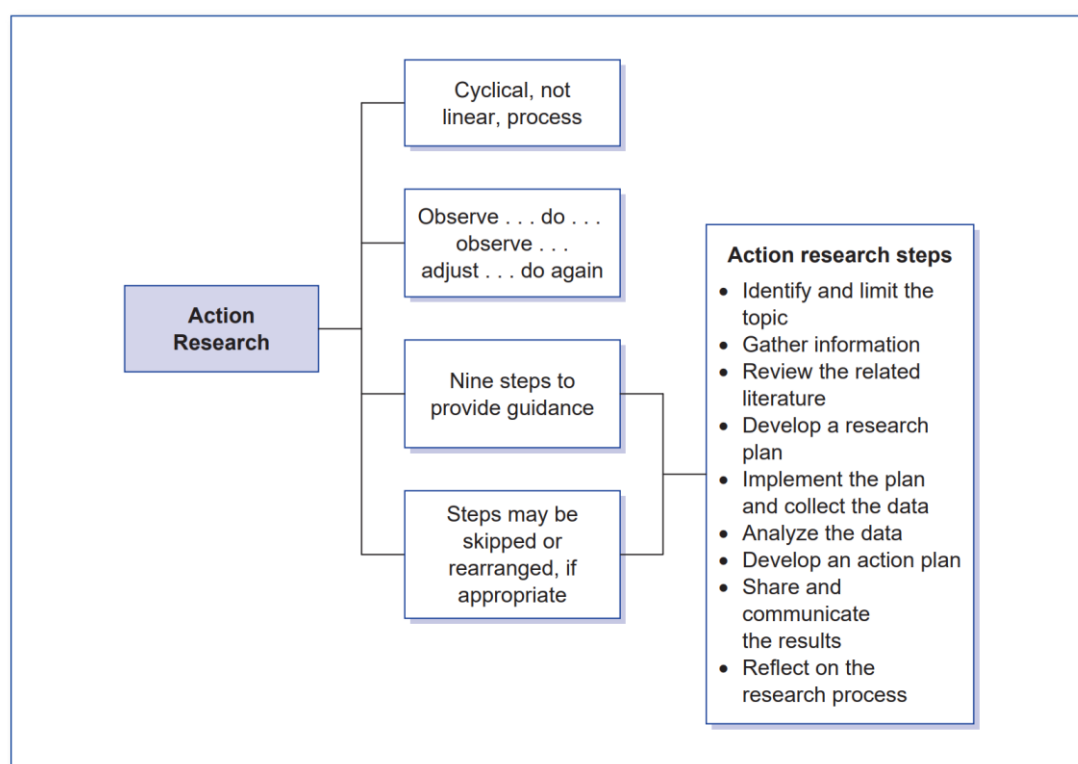


Figure 2: Different steps of Action Research highlighting its cyclic nature (source; Mertler, 2008).

In addition to introducing and discussing various aspects of Action Research, the training will cover the development of AR proposal. The AR research proposal development training equipped participants with skills to respond to the call for AR research proposals that were anticipated to be advertised. The training approach was very intensive, and it involved engaging with trainees during group work.

2.3.1 Workshop Structure and Content

The workshops were divided into two major activities. The first two days of all the workshops were dedicated to lectures and discussions, and the third day was dedicated to learning exchange visits to selected WM and NRM sites within the patriating countries. The workshops were structured into several sections, which included the following: i) Introduction to Action Research; ii) Action Research topic selection; iii) Action Research problem identification and analysis; iv) Formulation of Action Research questions and objectives; v) Action Research Design and Methodology; vi) Developing a Plan of Action and Implementation; and vii) Guidelines on proposal writing. At the beginning of the workshop in Zambia, a quick survey was conducted to establish awareness and knowledge of Action Research among the participants. Only four (4) of twenty-two (22) participants were familiar with Action Research, and those were from academia. This is a critical revelation because it suggests that crucial basic concepts in such a training workshop must be introduced diligently to ensure that participants are on the same level.

2.3.2 Training Methodology

The workshop was anchored around a series of presentations that sought to impart knowledge to the participants on various topics outlined above. These presentations provided vital information on Action Research activities and guidelines for putting together proposals. The participants were then offered to ask questions and make interventions as part of a broader discussion on materials presented during the plenary sessions. Following each lecture topic, the participants were then divided into groups related to NRM or WM. The group designations also considered the sectors that the participants came from (i.e. private sector, civil society organisations and government). The groups elected a chairperson and a rapporteur and then deliberated on topical issues discussed. The groups then presented the conclusions of their deliberations in plenary and engaged with other participants in the broader discussion.

The training workshop was structured according to a series of lectures, followed by group work and plenary group presentations (Figure 3). Lectures were delivered through PowerPoint presentations, and interactive discussions were encouraged. Participants were allowed to ask questions for clarity and elaboration. Following each lecture topic, the participants were then divided into groups related to NRM or WM. The group designations also considered the sectors that the participants came from (i.e. private sector, civil society organisations and government). The groups elected a chairperson and a rapporteur and then deliberated on topical issues discussed. The groups were then provided the opportunity to present the conclusions of their deliberations in plenary and engage with other participants in the broader discussion.

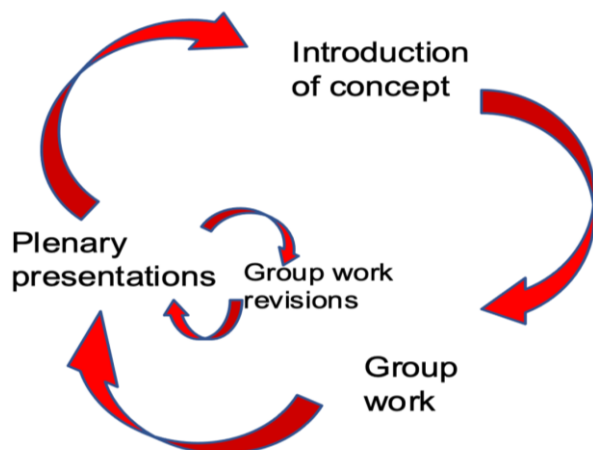


Figure 3. An illustration of the training approach

Participation and interaction were intense during group work and plenary presentations, indicating that participants understood what was taught. It was also evident that selected examples were beneficial and facilitated the understanding and internalisation of critical concepts.

2.4 Technical Support for Action Research Projects

It was anticipated that in October 2023, a call for Action for Research proposals would be issued to which organisations within the participating countries were expected to respond. Expectations were that the consultant would provide technical support to the selected institutions that the client would have chosen. Unfortunately, the call advertisement and the selection of organisations that could respond to the call were not done. It is against that reason that the consultant could not offer technical support to develop the Action Research project proposals and implementation.

2.5 Monitoring and Evaluation Framework

Monitoring and Evaluation Framework for Action Research projects is crucial as a guide to tracking the performance of Action Research projects. Therefore, one of the key deliverables for this assignment is an Action Research Monitoring and Evaluation Framework, which the Consultant successfully delivered. The objective of this M&E tool is to guide the team responsible for undertaking the monitoring activities for the selected Action Research projects by delineating the primary approach and requirements for carrying out such an endeavour. This tool will be the key reference point for executing the M&E actions, including data collection and reporting by the RINaWa M&E team members.

3. Training Needs Assessment Findings

While a comprehensive Training Needs Assessment was not feasible within the project constraints, our approach to identifying capacity-building requirements was grounded in a thorough literature review. This review encompassed existing research, policy documents, and project reports relevant to Natural Resource Management and Waste Management in the SADC region, focusing on Malawi, Mozambique, Tanzania, and Zambia.

3.1 Key Findings from Literature Review

Our review of existing literature, including the baseline study conducted by the CAWM, revealed several critical gaps in the current research and innovation landscape within the NRM and WM sectors:

1. Limited understanding and application of Action Research methodologies: Many stakeholders, particularly those from non-academic backgrounds, needed to familiarise themselves with the concept and practice of Action Research.
2. Disconnect between traditional knowledge systems and modern scientific approaches: There needed to be more integration between indigenous expertise and contemporary research methods, particularly in community-based natural resource management initiatives.
3. Inadequate skills in data collection, analysis, and interpretation: While many organisations were engaged in some form of monitoring and evaluation, there was a clear need for enhanced capacity in rigorous data management and analysis techniques.
4. Challenges in effective community engagement: Many projects needed help to meaningfully involve local communities throughout the research process, from problem identification to solution implementation.
5. Gaps in proposal writing and project management skills: Particularly among smaller community-based organisations (CBOs) and civil society organisations (CSOs), there was a significant need for capacity building in developing compelling research proposals and managing complex, multi-stakeholder projects.
6. Limited capacity for knowledge dissemination and policy influence: There was a clear need for support in effectively communicating research findings to diverse audiences and translating research outcomes into policy recommendations and actionable guidelines.

3.2 Development of Training Materials

Based on these identified gaps, we developed a comprehensive set of training materials designed to address the specific needs of stakeholders in the NRM and WM sectors. The training programme was structured to cover the following key areas:

1. **Introduction to Action Research:** Comprehensive materials were developed to introduce the principles, design, and implementation of Action Research projects, focusing on their application in NRM and WM contexts.
2. **Participatory Research Techniques:** Training modules were created to build skills in participatory rural appraisal, community mapping, and other inclusive research methods that prioritise local knowledge and community involvement.
3. **Data Collection and Analysis:** Materials were developed to enhance capacities in both qualitative and quantitative data collection methods, as well as data management, analysis, and interpretation skills.
4. **Project Design and Management:** Training content focused on developing research proposals, budgeting, timeline management, and coordinating multi-stakeholder research initiatives.
5. **Community Engagement and Facilitation:** Modules were designed to enhance skills in community mobilisation, conflict resolution, and facilitating collaborative decision-making processes.
6. **Knowledge Translation and Policy Influence:** Training materials addressed effective research communication, policy brief writing, and strategies for engaging policymakers and practitioners to promote evidence-based decision-making.
7. **Monitoring, Evaluation, and Learning:** Content was developed on designing and implementing robust M&E frameworks, focusing on adaptive management and continuous learning throughout the research process.

Training materials were developed in English to ensure accessibility and relevance across the target countries. Additionally, recognising the region's linguistic diversity, key materials were translated into Portuguese for colleagues in Mozambique. This approach aimed to facilitate better understanding and engagement among Portuguese-speaking participants.

The training materials were designed to be interactive and practical. They incorporated case studies from the region to illustrate the application of Action Research in real-world NRM and WM contexts. They included presentations, group exercises, role-

playing activities, and reflective discussions to cater to different learning styles and maximise engagement.

By addressing these identified gaps through targeted training materials, the programme aimed to significantly enhance the capacity of local and national groupings to conduct impactful, community-driven research that contributes to sustainable NRM and WM practices across the SADC region. The development of these materials laid the foundation for the subsequent training workshops conducted in each of the target countries.

4. Training Workshop Outcomes

4.1 Overview of Training Workshops

The RINaWa project facilitated four comprehensive training workshops across the participating countries, each designed to impart crucial knowledge on Action Research methodologies and equip stakeholders with the skills necessary to prepare concept notes for future projects. These workshops were strategically conducted in the following locations: Lilongwe, Malawi, from 10 to 13 October 2023; Lusaka, Zambia, from 30 October to 1 November 2023; Maputo, Mozambique, from 21 to 22 May 2024; and Arusha, Tanzania, from 27th to 28th May 2024.

The workshops were meticulously crafted to achieve several specific objectives. Firstly, they aimed to familiarise participants with the core principles, stages, and applications of action research within the contexts of WM and NRM. This foundational knowledge gave participants a solid conceptual and methodological basis for future work.

Secondly, the workshops focused on developing participants' practical skills. This included honing their abilities in defining relevant research topics, formulating actionable research questions and objectives, designing appropriate data collection and analysis methods, and planning for effective implementation. The emphasis on practical skills ensured that participants could immediately apply their learning to real-world scenarios.

Another key objective was to ensure that the research projects conceptualised during the workshops were grounded in and responsive to the priority needs and challenges identified by SADC, the respective national governments, local communities, and key stakeholders in the WM and NRM sectors. This alignment was crucial for ensuring future Action Research projects' relevance and potential impact.

The workshops also aimed to cultivate a spirit of collaboration, co-learning, and networking among the diverse participants. By bringing together stakeholders from various sectors and backgrounds, the workshops laid the groundwork for ongoing partnerships and knowledge exchange that would extend beyond the duration of the training.

Furthermore, the workshops were designed to generate tangible outputs. Participants were encouraged to develop draft Action Research project plans, and concept notes that they could further refine and seek support to implement in their respective contexts. This practical outcome ensured that the workshop learning could be immediately translated into potential projects.

Lastly, the workshops strengthened the enabling environment and capacity for high-quality, applied research and innovation for sustainable development in the SADC region. This aligns with the broader objectives of the RINaWa project and sets the stage for long-term impact in the field of NRM and WM.

4.2 Malawi Workshop

The Malawi workshop, held in Lilongwe from 10th to 13th October 2023, marked the beginning of the RINaWa project's series of capacity-building initiatives in Action Research for NRM and WM. This four-day intensive workshop brought together a diverse group of stakeholders to explore innovative approaches to addressing environmental challenges in Malawi through Action Research.

4.2.1 Participants and Stakeholders

The workshop attracted over 30 participants, representing a cross-section of Malawi's NRM and WM sectors. This diversity of attendees was crucial in fostering rich discussions and cross-sectoral learning.

Community-Based Organizations (CBOs) were well-represented, with participants from entities such as the Masalapa ECO Tourism Enterprise and the Nkhotakota Wildlife Reserve Association. These representatives brought valuable insights from grassroots conservation and community-based natural resource management initiatives.

The private sector's involvement was notable, with representatives from companies like Capital City Cleaners. Their participation added essential perspectives on the commercial viability of sustainable practices and potential market-driven solutions to environmental challenges.

Government representation was strong, with officials from key institutions, including the Department of National Parks and Wildlife and the Environmental Affairs Department. Their presence ensured that discussions were grounded in national policy contexts and priorities.

The demographic analysis revealed that participants were predominantly male (72.7%), with 45.5% in the 36 to 45-year-old age group. The respondents were equally split between the NRM and WM sectors, with the majority (45.5%) representing Community-Based Organizations.

4.2.2 Training Content and Key Reflections

The workshop was structured around several interconnected sessions, each building on the previous ones to create a comprehensive understanding of Action Research and its applications in NRM and WM.

1. **Introduction to Action Research:** This foundational session introduced participants to the key concepts, principles, and stages of Action Research, distinguishing it from traditional research approaches.
2. **Action Research Topic Selection:** Participants learned about the criteria for choosing research topics that are academically sound and relevant to local needs and priorities.
3. **Problem Identification and Analysis:** This session introduced tools and techniques for systematically analysing complex environmental issues, such as problem tree analysis and stakeholder mapping.
4. **Formulation of Research Questions and Objectives:** Participants learned to craft clear, focused research questions and objectives that could guide their investigations and lead to actionable outcomes.
5. **Action Research Design and Methodology:** This comprehensive session explored various research methods and data collection techniques, particularly emphasising participatory approaches.
6. **Developing a Plan of Action and Implementation:** Participants were guided through translating research findings into concrete action plans.
7. **Guidelines on Proposal Writing:** This session equipped participants with the skills to articulate their Action Research ideas in a format that could attract funding or institutional support.

Throughout the workshop, participants engaged in group work, applying the concepts learned to real NRM and WM challenges in Malawi. These practical exercises were crucial in helping participants internalise the Action Research approach and see its potential applications in their work contexts.

4.2.3 Learning Outcomes and Key Reflections

The workshop achieved significant learning outcomes, evidenced by the quality of discussions and group presentations. Participants clearly understood the cyclical and participatory nature of Action Research and recognised its potential to drive real-world change in NRM and WM practices.

Key learning outcomes included:

- Enhanced ability to differentiate between traditional research and Action Research
- Improved skills in identifying appropriate project topics and titles
- Better understanding of stakeholder roles in project implementation
- Increased capacity to develop Action Research problem statements and questions
- Improved ability to undertake problem analysis
- Enhanced skills in creating Action Research plans
- Introduction to the use of scoring matrices for project selection

Participants reflected on the potential of Action Research to bridge the gap between academic research and practical problem-solving in environmental management. Many noted the value of the participatory approach in ensuring research relevance and community buy-in.

4.2.4 Participant Feedback and Evaluation

The feedback from participants was overwhelmingly positive. Many appreciated the workshop's comprehensive nature and its coverage of a wide range of topics relevant to Action Research in NRM and WM.

Participants particularly valued the interactive elements of the workshop, including group discussions, practical exercises, and peer learning opportunities. Many noted that these interactive elements helped to reinforce their understanding of the concepts presented.

The relevance of the workshop content to participants' work was frequently highlighted. Attendees appreciated how the training addressed real-world challenges in NRM and WM, providing practical tools and approaches that could be immediately applied in their professional contexts.

Some participants suggested that more time could be allocated for specific topics, particularly the more complex aspects of research design and data analysis. Others recommended including field visits or case study presentations from local projects in future workshops.

Overall, the Malawi workshop successfully built capacity for Action Research in NRM and WM, laying a solid foundation for future initiatives in the country. Participants'

enthusiasm and engagement indicated a growing recognition of the potential of Action Research to address complex environmental challenges in Malawi and the broader SADC region.

Certainly. I'll provide concise two-page summaries for the Mozambique and Tanzania workshops, consistent with the previous descriptions. Here they are:

4.3 Mozambique Workshop

The Mozambique workshop, held in Maputo from 21st to 22nd May 2024, was a pivotal event in the RINaWa project's series of capacity-building initiatives. This two-day intensive workshop brought together a diverse group of stakeholders to explore the application of Action Research in addressing NRM and WM challenges in Mozambique.

4.3.1 Participants and Stakeholders

The workshop attracted 22 participants, representing a cross-section of Mozambique's NRM and WM sectors. The diversity of attendees was a key strength of the event, fostering rich discussions and cross-sectoral learning.

Government representation was strong, with officials from key ministries and agencies, including the Ministry of Land and Environment, the National Agency for Environmental Quality Control, and the National Directorate of Forestry. Their presence ensured that discussions were grounded in national policy contexts and priorities.

Civil society was well-represented, with members from organisations such as the National Union of Peasants and the Forum for Nature Conservation and Sustainable Development. These participants brought valuable grassroots perspectives and experiences of community-based environmental initiatives.

The private sector's involvement was notable, with representatives from companies like 3R Limitada, Fertiliza Lda, and Eco-Micaia. Their participation added essential insights into the commercial viability of sustainable practices and potential market-driven solutions to environmental challenges.

The workshop also benefited from representatives from RINaWa project partners, including Aid for the Development of People for People (ADPP) Mozambique and Austral Cowi Lda (COWI) Mozambique. These participants provided additional technical support and helped contextualise the training within the broader RINaWa project objectives.

4.3.2 Training Content and Key Reflections

The workshop was structured around six main sessions, each building on the previous one to create a comprehensive understanding of Action Research and its applications in NRM and WM.

1. **Introduction to Action Research:** This foundational session introduced participants to the key concepts, principles, and stages of Action Research. The facilitators emphasised its participatory and transformative nature, distinguishing it from traditional research approaches. Participants explored different models of Action Research and examined case studies from the region, including a farmer-led agroecological innovation project in Malawi.

2. **Topic Selection, Problem Identification, and Analysis:** This session delved into the crucial first steps of the Action Research cycle. Participants learned about criteria and tools for selecting relevant, urgent, and aligned research topics with community needs and policy priorities. They were also introduced to techniques such as stakeholder mapping, problem tree analysis, and root cause analysis.

3. **Formulating Research Questions and Objectives:** Participants learned to translate identified problems into straightforward, actionable research questions and objectives. They practised crafting specific, measurable, and relevant questions to stakeholder needs.

4. **Research Design and Methodology:** This session focused on selecting appropriate research methodologies to address the identified questions and objectives. Participants were introduced to various qualitative, quantitative, and mixed methods approaches commonly used in Action Research.

5. **Stakeholder Engagement and Collaboration Strategies:** This session recognised the central role of collaboration in Action Research and provided frameworks and strategies for building and sustaining effective partnerships throughout the research process.

6. **Action Plan Development and Implementation:** In this practical session, participants learned how to develop realistic action plans for implementing their research projects, considering timelines, resources, and responsibilities.

Throughout the workshop, participants engaged in group work, applying the concepts learned to real NRM and WM challenges in Mozambique. These practical exercises

were crucial in helping participants internalise the Action Research approach and see its potential applications in their work contexts.

4.3.3 Learning Outcomes and Key Reflections

The workshop achieved significant learning outcomes, evidenced by the quality of discussions and group presentations. Participants clearly understood the cyclical and participatory nature of Action Research and recognised its potential to drive real-world change in NRM and WM practices.

Key reflections from participants included:

- The importance of flexibility in Action Research, adapting project duration and approaches based on the problem being addressed.
- The critical role of community collaboration, with many participants noting how Action Research could help transcend top-down approaches to environmental management.
- The value of integrating Indigenous Knowledge Systems with scientific approaches, recognising local communities as key partners rather than just research subjects.
- The need for improved feedback mechanisms in research projects, ensuring that communities see the benefits of their participation.

Participants also reflected on the challenges of implementing Action Research in their contexts, including potential resistance to change, resource constraints, and the need to balance rigorous research with practical, community-led action.

4.3.4 Participant Feedback and Evaluation

The feedback from participants was overwhelmingly positive. Many appreciated the workshop's interactive nature and the opportunity to apply concepts to real-world scenarios. The diversity of participants was highlighted as a strength, enabling rich cross-sectoral discussions and potential future collaborations.

Participants particularly valued the sessions on stakeholder engagement and action plan development, which are crucial skills for effective environmental management. Many expressed increased confidence in their ability to design and implement Action Research projects in their work.

Some participants suggested that future workshops could include field visits to ongoing Action Research projects, providing concrete examples of the approach in

practice. Others recommended more time for specific complex topics, particularly data analysis and research ethics.

Overall, the Mozambique workshop successfully built capacity for Action Research in NRM and WM, laying a solid foundation for future initiatives in the country. Participants' enthusiasm and engagement indicated a growing recognition of the potential of Action Research to address complex environmental challenges in Mozambique.

4.4 Tanzania Workshop

The Tanzania workshop in Arusha from 27th to 28th May 2024 marked the culmination of the RINaWa project's capacity-building initiatives in NRM and WM. This two-day intensive workshop brought together diverse stakeholders to explore innovative approaches to addressing environmental challenges in Tanzania through Action Research.

4.4.1 Participants and Stakeholders

The workshop convened 21 participants, representing a cross-section of Tanzania's NRM and WM sectors. This diversity of attendees was crucial in fostering rich discussions and cross-sectoral learning.

Government representation was strong, with officials from key institutions, including the Ministry of Natural Resources and Tourism, the Arusha City Council, the Tanzania Wildlife Management Authority (TAWA), and the Tanzania Wildlife Research Institute (TAWIRI). Their presence ensured that discussions were grounded in national policy contexts and priorities.

Civil society was well-represented, with participants from organisations such as the Kesho Trust, Nature Tanzania, and Shanga. These representatives brought valuable insights from community-based conservation and sustainable development initiatives.

The academic sector's involvement was notable, with researchers and lecturers from institutions like Sokoine University of Agriculture. Their participation added critical perspectives on current research trends and methodologies in environmental management.

Private sector actors involved in waste management and recycling businesses also attended, bringing practical insights into the challenges and opportunities in sustainable waste management practices.

This mix of participants created a rich learning environment, allowing for exchanging ideas across different sectors and exploring potential synergies between various approaches to NRM and WM.

4.4.2 Training Content and Key Reflections

The workshop was structured around seven main sessions, each building on the previous one to create a comprehensive understanding of Action Research and its applications in NRM and WM.

1. Introduction to Action Research: This foundational session introduced participants to the key tenets, origins, and applications of Action Research. Facilitators emphasised its transformative and participatory nature, distinguishing it from conventional research approaches.

2. Topic Selection, Problem Identification, and Analysis: Participants learned about criteria and tools for selecting research topics that are scientifically relevant, contextually appropriate, and grounded in local realities and needs. They were introduced to techniques such as stakeholder mapping, problem tree analysis, and root cause analysis.

3. Formulating Research Questions and Objectives: This session focused on translating identified problems into clear, measurable, and action-oriented research questions and objectives. Participants learned techniques for defining "SMART" research objectives.

4. Research Design and Methodology: Participants were introduced to various research designs and methods commonly used in Action Research, including qualitative, quantitative, and mixed methods approaches.

5. Stakeholder Engagement and Collaboration Strategies: This session provided frameworks and strategies for building and sustaining effective partnerships throughout the research process.

6. Action Plan Development and Implementation: Participants learned how to develop detailed implementation roadmaps for their proposed Action Research projects.

7. Applying Action Research in Practice: The final session explored how Action Research can improve organisational learning, knowledge management, and innovation in NRM and WM contexts.

Participants engaged in practical exercises throughout the workshop, applying the concepts learned to real NRM and WM challenges in Tanzania. These hands-on activities were crucial in helping participants internalise the Action Research approach and envision its potential applications in their work contexts.

4.4.3 Learning Outcomes and Key Reflections

The workshop achieved significant learning outcomes, evidenced by the quality of discussions and group presentations. Participants clearly understood the cyclical and participatory nature of Action Research and recognised its potential to drive real-world change in NRM and WM practices.

Key reflections from participants included:

- The importance of managing expectations in research projects recognising that unexpected challenges may arise during implementation.
- The critical role of community voices in Action Research, with many participants noting the need to prioritise local knowledge and perspectives.
- The value of adequate training for data enumerators is to ensure high-quality and ethical data collection.
- The need for flexibility in research design, allowing for adaptation based on emerging insights and changing contexts.

Participants also reflected on the potential of Action Research to break down silos between different sectors and disciplines, fostering more holistic and practical approaches to environmental management.

4.4.4 Participant Feedback and Evaluation

The feedback from participants was overwhelmingly positive. Many appreciated the workshop's interactive nature and the opportunity to apply concepts to real-world scenarios. The diversity of participants was highlighted as a strength, enabling rich cross-sectoral discussions and potential future collaborations.

Participants particularly valued the sessions on stakeholder engagement and action plan development, which are crucial skills for effective environmental management. Many expressed increased confidence in their ability to design and implement Action Research projects in their work.

Some participants suggested that future workshops could include more time for specific complex topics, particularly data analysis and research ethics. Others recommended incorporating field visits to ongoing Action Research projects to provide concrete examples of the approach in practice.

The Executive Director of The Kesho Trust's case study presentation was highly appreciated. It provided a tangible example of how Action Research principles can be applied to advance conservation and development goals in Tanzania.

Overall, the Tanzania workshop successfully built capacity for Action Research in NRM and WM, laying a solid foundation for future initiatives in the country. Participants' enthusiasm and engagement indicated a growing recognition of the potential of Action Research to address complex environmental challenges in Tanzania and the broader SADC region.

4.5 Zambia Workshop

The Zambia workshop, held in Lusaka from 30th October to 1st November 2023, was a pivotal event in the RINaWa project's series of capacity-building initiatives. This three-day intensive workshop brought together a diverse group of stakeholders to explore the application of Action Research in addressing NRM and WM challenges in Zambia.

4.5.1 Participants and Stakeholders

The workshop attracted twenty-five participants, representing a cross-section of Zambia's NRM and WM sectors. This diversity of attendees was crucial in fostering rich discussions and cross-sectoral learning.

Government representation was strong, with officials from key ministries and departments bringing valuable insights into national priorities and regulatory frameworks governing NRM and WM in Zambia.

The private sector was well-represented, with participants from companies engaged in waste management, recycling, and natural resource-based industries. Their presence added essential perspectives on the economic viability of sustainable practices and potential market-driven solutions to environmental challenges.

Academic and CBOs were also well-represented. Researchers and lecturers from Zambian universities contributed their expertise in environmental science and social research methodologies. Representatives from CBOs brought grassroots

perspectives and practical insights from their direct engagement with local communities affected by NRM and WM issues.

Representatives from regional organisations such as MWEKA, CWMAC, and Repensar also contributed to the workshop, providing a broader regional context for the discussions.

4.5.2 Training Content and Key Reflections

The workshop was structured around several interconnected sessions, each building on the previous one to create a comprehensive understanding of Action Research and its applications in NRM and WM.

1. **Introduction to Action Research:** This foundational session introduced participants to the concept and principles of Action Research, distinguishing it from traditional research methodologies.
2. **Action Research Topic Selection:** Participants learned about the criteria for choosing research topics that are academically rigorous and relevant to local needs and priorities.
3. **Problem Identification and Analysis:** This session introduced tools and techniques for systematically analysing environmental issues, including problem tree analysis, stakeholder mapping, and root cause analysis.
4. **Formulation of Research Questions and Objectives:** Participants learned to craft straightforward, focused research questions and objectives that could guide their investigations and lead to actionable outcomes.
5. **Action Research Design and Methodology:** This comprehensive session explored various research methods and data collection techniques, emphasising participatory and inclusive approaches.
6. **Developing Plans of Action and Implementation:** Participants were guided through translating their Action Research ideas into concrete projects.
7. **Guidelines on Proposal Writing:** This session equipped participants with the skills to effectively articulate their Action Research ideas in funding proposals.

Participants engaged in practical exercises throughout the workshop, applying the concepts learned to real NRM and WM challenges in Zambia. These hands-on activities were crucial in helping participants internalise the Action Research approach and envision its potential applications in their work contexts.

4.5.3 Learning Outcomes and Key Reflections

The workshop achieved significant learning outcomes, evidenced by the quality of discussions and group presentations. Participants clearly understood the cyclical and participatory nature of Action Research and recognised its potential to drive real-world change in NRM and WM practices.

Key learning outcomes included:

- Enhanced understanding of the differences between Action Research and traditional research approaches
- Improved ability to identify and analyse problems within the Action Research framework
- Enhanced skills in formulating research questions and objectives aligned with Action Research principles
- Better understanding of stakeholder engagement in research processes
- Improved capacity to design research methodologies appropriate for Action Research
- Enhanced ability to develop action plans and write research proposals

Participants reflected on the potential of Action Research to bridge the gap between academic research and practical problem-solving in environmental management. Many noted the value of the participatory approach in ensuring research relevance and community buy-in.

4.5.4 Participant Feedback and Evaluation

The feedback from participants was overwhelmingly positive, with over 85% of respondents expressing satisfaction with their understanding of the topics covered.

Many participants highlighted the interactive nature of the workshop as a key strength, appreciating the balance between theoretical presentations and practical group work. The relevance of the workshop content to participants' work was frequently mentioned, with attendees from various sectors finding aspects of the training directly applicable to their professional contexts.

Several participants appreciated the comprehensive coverage of Action Research principles and methods. They felt that the workshop had given them a solid foundation for undertaking Action Research projects, and some had already begun conceptualising potential research ideas by the end of the training.

Some constructive feedback was also provided. Several participants suggested that more time could be allocated to complex topics, particularly research methodology and data analysis. Others recommended including more local case studies of successful Action Research projects in NRM and WM.

Overall, the Zambia workshop successfully built capacity for Action Research in NRM and WM, laying a strong foundation for future initiatives in the country. Participants' enthusiasm and engagement indicated a growing recognition of the potential of Action Research to address complex environmental challenges in Zambia and the broader SADC region.

5. Guidelines for Action Research Projects

5.1 Standardised Guide for Action Research Project Development

The development of a standardised guide for Action Research project development was a crucial output of this consultancy, aimed at providing a clear, step-by-step framework for stakeholders to conceptualise, plan, and implement effective Action Research initiatives in the NRM and WM sectors. This guide was crafted based on established Action Research principles, adapted to the specific contexts of the SADC region and informed by the insights gathered during the Training Needs Assessment.

The guide is structured around the following key components:

1. Understanding Action Research:

The guide begins with a comprehensive introduction to Action Research, emphasising its cyclical, participatory nature and potential for driving real-world change. It clearly articulates the differences between Action Research and traditional research approaches, highlighting the focus on collaborative problem-solving and integrating action and reflection throughout the research process.

2. Problem Identification and Contextualisation:

This section guides users through the critical first step of identifying and framing the research problem. It emphasises the importance of grounding the research in local realities and priorities and provides tools for conducting stakeholder analyses and participatory problem-tree exercises. The guide stresses the need to consider broader systemic issues and to frame problems in ways that open possibilities for action.

3. Stakeholder Engagement and Partnership Building:

This component recognises the centrality of collaboration in Action Research and offers strategies for identifying, engaging, and sustaining partnerships with diverse stakeholders. It guides the conduct of stakeholder mapping exercises, the facilitation of multi-stakeholder dialogues, and the establishment of clear roles and responsibilities within the research team and broader stakeholder group.

4. Research Design and Methodology:

This section walks users through developing a robust research design that aligns with Action Research principles. It covers the formulation of research questions and objectives, the selection of appropriate data collection methods (both qualitative and quantitative), and considerations for ensuring research ethics and rigour. Special attention is given to participatory methodologies that enable community members to be active co-researchers rather than passive subjects.

5. Action Planning and Implementation:

The guide provides a framework for translating research findings into concrete action plans. It offers tools for collaborative planning, resource allocation, and risk assessment. This section also addresses the iterative nature of Action Research, emphasising the need for flexibility and adaptive management as the project unfolds.

6. Reflection and Learning:

A crucial component of Action Research is the ongoing process of reflection and learning. This section guides facilitating reflective practices at individual, team, and community levels. It offers tools for critical reflection, such as reflective journals, after-action reviews, and learning circles.

7. Data Analysis and Sense-making:

The guide offers approaches to collaborative data analysis and interpretation, emphasising the importance of involving stakeholders in making sense of the data collected. It guides techniques such as participatory data analysis workshops and visual methods to make data accessible to diverse audiences.

8. Knowledge Dissemination and Scaling:

This component addresses strategies for effectively communicating research findings and insights to different audiences, including local communities, policymakers, and the broader scientific community. It also explores approaches to scaling up successful interventions and embedding learnings into organisational and community practices.

9. Monitoring, Evaluation, and Impact Assessment:

The guide integrates monitoring and evaluation throughout the Action Research process, providing tools for tracking progress, assessing outcomes, and measuring long-term impact. It emphasises participatory approaches to M&E that align with the collaborative ethos of Action Research.

10. Proposal Writing and Resource Mobilisation:

This section recognises the practical need for funding and support and offers guidance on translating Action Research ideas into compelling proposals. It covers key elements of proposal writing, budgeting, and strategies for engaging potential funders and partners.

The guide illustrates key concepts and provides inspiration using real-world examples and case studies from NRM and WM initiatives in the SADC region. It also includes a series of templates, checklists, and worksheets to support users in applying the concepts to their contexts.

To ensure accessibility and practical applicability, the guide is written in clear, jargon-free language and is available in English, Portuguese, and key local languages of the target countries. It is designed to be flexible, allowing users to adapt the approach to

their specific needs and contexts while maintaining the core principles of Action Research.

The development of this standardised guide represents a significant step towards building a consistent, high-quality approach to Action Research in the NRM and WM sectors across the SADC region. Providing a common framework and language for Action Research aims to facilitate collaboration, knowledge sharing, and the scaling up of successful initiatives across countries and contexts.

6. Monitoring and Evaluation Framework

6.1 M&E Tool for Action Research Projects

The Monitoring and Evaluation (M&E) tool developed for the Action Research projects under the RINaWa initiative is designed to provide a comprehensive framework for tracking progress, assessing outcomes, and measuring the impact of these interventions. This tool has been crafted to align with the unique characteristics of Action Research, recognising the need for flexibility, participatory approaches, and ongoing learning and adaptation.

The M&E tool is structured around a results-based management approach. A clear theory of change links project activities to outputs and outcomes and ultimately to the overarching objectives of improved NRM and WM in the SADC region. It incorporates quantitative and qualitative indicators to capture the multifaceted nature of Action Research impacts.

Key features of the M&E tool include:

1. **Participatory Indicator Development:** The tool guides involving community members and other stakeholders in developing locally relevant indicators that reflect their priorities and perspectives.
2. **Process and Outcome Indicators:** Recognising that the process of conducting Action Research is often as important as the outcomes, the tool includes indicators that track both the quality of participatory methods and tangible results.
3. **Adaptive Management Framework:** The tool includes a mechanism for regular reflection and adaptation, which allows project teams to adjust their strategies based on emerging findings and changing contexts.
4. **Mixed Methods Approach:** The tool encourages the use of quantitative and qualitative data collection methods, including surveys, interviews, focus groups, and participatory assessment techniques.
5. **Learning-Oriented:** Beyond mere measurement, the M&E tool facilitates learning and knowledge generation throughout the project lifecycle.
6. **Gender and Social Inclusion Lens:** Specific indicators and methodologies are included to assess the differential impacts of interventions on various social groups, with a particular focus on gender dynamics.

7. Sustainability Assessment: The tool incorporates elements to evaluate the long-term sustainability of project outcomes and the potential for scaling up successful interventions.

6.2 Integration with SADC M&E System

A key consideration in developing this M&E tool was its compatibility and integration with the broader SADC M&E system. This alignment ensures that data and insights generated from the Action Research projects can feed into regional-level monitoring and decision-making processes.

The integration has been achieved through:

1. Alignment of Indicators: Where possible, indicators have been harmonised with those used in the SADC Regional Indicative Strategic Development Plan (RISDP) and other relevant regional frameworks.
2. Standardised Reporting Formats: The tool includes reporting templates compatible with SADC's reporting requirements, facilitating easy aggregation and analysis at the regional level.
3. Data Sharing Protocols: Clear guidelines have been established for sharing project-level data with SADC structures, ensuring data quality, confidentiality, and ethical considerations are maintained.
4. Capacity Building Linkages: The M&E tool is designed to complement and feed into SADC's broader capacity-building efforts in M&E across the region.

6.3 Recommendations for Data Collection and Dissemination

To ensure effective implementation of the M&E tool and meaningful use of the data generated, the following recommendations are proposed:

1. Baseline Studies: Conduct comprehensive baseline studies at the outset of each Action Research project to establish clear benchmarks against which progress can be measured.
2. Regular Data Collection Cycles: Establish clear timelines for data collection, aligned with key project milestones and decision-making points.

3. **Participatory Data Collection:** Train and involve community members in data collection processes, building local capacity and ensuring culturally appropriate methodologies.
4. **Use of Technology:** Where appropriate, leverage mobile and digital technologies for efficient data collection, management, and real-time analysis.
5. **Data Quality Assurance:** Implement robust data verification and validation processes to ensure the reliability and credibility of collected information.
6. **Collaborative Analysis:** Facilitate regular participatory analysis sessions involving project teams, community members, and other key stakeholders to make sense of the data and generate insights collectively.
7. **Knowledge Products:** Develop a range of knowledge products (e.g., policy briefs, case studies, visual summaries) to communicate M&E findings to different audiences effectively.
8. **Learning Events:** Organise periodic learning events at local, national, and regional levels to share insights, best practices, and challenges across Action Research projects.
9. **Open Data Principles:** Where possible and appropriate, adopt open data principles to make anonymised datasets and findings accessible to researchers, policymakers, and practitioners across the region.
10. **Feedback Loops:** Establish precise mechanisms for feeding M&E findings into project design and implementation, fostering a culture of evidence-based decision-making and continuous improvement.

By implementing this comprehensive M&E tool and following these recommendations, the RINaWa initiative aims to track the progress and impact of individual Action Research projects and generate valuable knowledge and evidence to inform broader NRM and WM policy and practice across the SADC region.

7. Impact and Sustainability

7.1 Potential Impact of Capacity Building and Action Research Projects

The capacity-building initiatives and Action Research projects implemented under the RINaWa programme have the potential to generate significant and far-reaching impacts across the NRM and WM sectors in the SADC region. These impacts are anticipated to manifest at multiple levels:

At the individual level, participants in the training workshops and Action Research projects have gained valuable skills, knowledge, and confidence in applying innovative research methodologies to address real-world challenges. This enhanced capacity is expected to translate into more effective leadership, improved decision-making, and increased ability to drive positive change within their respective organisations and communities.

At the organisational level, the involvement of diverse stakeholders - including government agencies, academic institutions, community-based organisations (CBOs), and private sector entities - in the capacity building and Action Research initiatives is expected to foster institutional strengthening and promote a culture of evidence-based decision-making. Organisations are now better equipped to design, implement, and evaluate interventions in NRM and WM, leading to more effective and sustainable practices.

At the community level, the participatory nature of the Action Research projects has empowered local communities to take a more active role in managing their natural resources and addressing waste management challenges. This increased engagement is likely to result in more locally appropriate and sustainable solutions and enhanced community resilience and adaptive capacity in the face of environmental changes.

At the policy level, the evidence and insights generated through the Action Research projects have the potential to inform and influence policy-making processes at local, national, and regional levels. By providing concrete, context-specific data on the effectiveness of various NRM and WM approaches, these projects can contribute to developing more responsive and effective policies and regulations.

At the ecosystem level, the improved management practices and innovative solutions developed through the Action Research projects are expected to contribute to the conservation of biodiversity, the sustainable use of natural resources, and the reduction of environmental pollution. This, in turn, can lead to enhanced ecosystem services and improved environmental quality across the region.

At the socio-economic level, the impacts of the capacity building and Action Research initiatives will likely extend beyond environmental outcomes. Improved NRM and WM practices can contribute to economic diversification, create new job opportunities in green sectors, and enhance the overall quality of life for communities dependent on natural resources.

7.2 Strategies for Sustainability and Scaling Up

To ensure the long-term sustainability and broader impact of the capacity-building and Action Research initiatives, several vital strategies are proposed:

1. **Institutionalisation of Action Research Approaches:** Efforts should be made to integrate Action Research methodologies into the standard operating procedures of relevant government departments, academic curricula, and organisational practices of CBOs and NGOs. This institutionalisation will help ensure that the participatory, evidence-based approach becomes a norm rather than an exception in NRM and WM interventions.
2. **Building Communities of Practice:** Establishing and nurturing networks of Action Research practitioners across the SADC region can facilitate ongoing peer learning, knowledge sharing, and collaboration. These communities of practice can serve as hubs for innovation and continuous capacity development beyond the lifespan of the RINaWa programme.
3. **Leveraging Technology for Knowledge Dissemination:** Developing digital platforms and tools to share Action Research findings, methodologies, and best practices can significantly enhance the reach and accessibility of the knowledge generated. This could include online repositories, interactive learning modules, and virtual collaboration spaces.
4. **Policy Advocacy and Engagement:** Developing targeted strategies to communicate Action Research findings to policymakers and engage them in dialogue can increase the likelihood of research-informed policy changes. This may involve producing policy briefs, organising policy forums, and cultivating relationships with key decision-makers.
5. **Diversifying Funding Sources:** To ensure the financial sustainability of Action Research initiatives, efforts should be made to diversify funding sources. This could include exploring partnerships with the private sector, tapping into climate finance mechanisms, and developing proposals for larger-scale regional or international funding programmes.

6. **Scaling Through Partnerships:** Identifying and cultivating strategic partnerships with other regional and international initiatives working on similar themes can provide avenues for scaling up successful approaches and methodologies developed through the RINaWa programme.

7. **Capacity Building for Scalability:** Integrating training on project scaling and replication into the capacity-building curriculum can equip participants with the skills needed to expand the reach and impact of their initiatives.

8. **Adaptive Management and Continuous Learning:** Embedding principles of adaptive management and continuous learning into all Action Research projects can enhance their resilience and ability to evolve in response to changing contexts and emerging challenges.

7.3 Recommendations for Future Interventions

Based on the experiences and learnings from the current phase of the RINaWa programme, the following recommendations are proposed for future interventions in capacity building and Action Research for NRM and WM in the SADC region:

1. **Deepen Cross-Sectoral Collaboration:** Future interventions should place even greater emphasis on fostering collaboration between different sectors (e.g., environment, agriculture, health, and education) to address the complex, interconnected nature of NRM and WM challenges.

2. **Enhance Youth Engagement:** Developing targeted strategies to engage and empower youth in Action Research can help cultivate a new generation of environmental leaders and innovators in the region.

3. **Strengthen Science-Policy Interfaces:** Future programmes should build stronger linkages between researchers, practitioners, and policymakers to ensure that Action Research findings are effectively translated into policy and practice.

4. **Integrate Indigenous Knowledge Systems:** More deliberate efforts are needed to integrate and validate indigenous knowledge systems within Action Research methodologies, recognising the valuable insights and practices held by local communities.

5. **Expand Thematic Focus:** While maintaining a core focus on NRM and WM, future interventions could explore expanding into closely related thematic areas such as climate change adaptation, sustainable agriculture, and circular economy approaches.

6. Enhance Regional Integration: Developing mechanisms for greater cross-country learning and collaboration can help leverage the diverse experiences and expertise across the SADC region.

7. Invest in Long-term Impact Assessment: Establishing systems for long-term monitoring and evaluation of Action Research impacts can provide valuable insights into the sustained effects of these interventions and inform future programme design.

By implementing these strategies and recommendations, the impacts of the capacity-building and Action Research initiatives can be sustained, scaled, and amplified, contributing to lasting positive change in NRM and WM practices across the SADC region.

Annexes

Annex 1 Training Needs Assessment Survey Natural Resources

Consultancy for action-research projects development and facilitation for national and local groupings for the strengthening research and innovation in Natural resources management and Natural Resources management in the Southern Africa region (RINaWa) project.

To assist you to develop Action Research projects, DPC & Associates is conducting a Training Needs Assessment on your Institution/Organization. We would appreciate if you can find time to complete this questionnaire as accurately and honestly as possible. The information collected during this survey will help us to deliver the best training to meet your specific needs.

Thank you for your time.

To be completed by Representatives of Community Based Organizations, Civil Society Organizations, Public Sector, Indigenous Local Communities, Non-Governmental Organizations involved in Natural Resources Management within the targeted countries.

1. Name of Institution/Organization

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2. Number of Departments

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3. Number of Staff

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4. What are the most critical Natural Resources Management challenges your Institution/Organization is currently facing?

[illegible]

Training/development need	Level of training required

Yes	No
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[illegible]

Yes	No

Yes	No

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b. If yes, what kind of research do you do?

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9. Do you think it is essential to incorporate research into your organization/institution mandate?

Yes	No

a. Give reasons for your response to the previous question.

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10. Are the communities you are representing or working with, experiencing any Natural Resources Management challenges/problems that could be solved through policy reforms and applied research?

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11. Are you collaborating with any research institutions or public institution/organization in Natural Resources Management research?

Yes	No

a. If yes, please list some of them

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12. Does your organization/institution have capacity to write fundable research proposals?

Yes	No

13. Do you think Natural Resources Management Resources research collaboration could enhance productivity in your organization/institution?

Yes	No

a. Please elaborate

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14. Do you think your organization/institution has potential to conduct research that could inform practice and policy?

Yes	No

15. What challenges do you anticipate if you could embark on doing research?

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16. Do you think you have enough capacity to conduct research within your organization/institution?

Yes	No

17. What do you think could be done to enhance research capacity in your organization?

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18. Are you familiar with the concept of Action Research?

Yes	No

a. Please elaborate

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19. Do you have any experience in conducting Natural Resources Management Action Research?

Yes	No

a. If yes, please elaborate

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20. Do you think training in Action Research is necessary and important for your organization to deliver its Natural Resources Management mandate and strategic objectives?

Yes	No

21. Do you have staff members within your organization/institution who have been trained in Action Research before?

Yes	No

22. Any other additional

comments.....

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Annex 2: Training Needs Assessment Survey for Waste Management

Consultancy for action-research projects development and facilitation for national and local groupings for the strengthening research and innovation in Natural resources management and waste management in the Southern Africa region (RINaWa) project.

To assist you to develop Action Research projects, DPC & Associates is conducting a Training Needs Assessment on your Institution/Organization. We would appreciate if you can find time to complete this questionnaire as accurately and honestly as possible. The information collected during this survey will help us to deliver the best training to meet your specific needs.

Thank you for your time.

To be completed by Representatives of Community Based Organizations, Civil Society Organizations, Public Sector, Indigenous Local Communities, Non-Governmental Organizations involved in Waste Management within the targeted countries.

1. Name of Institution/Organization

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2. Number of Departments

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3. Number of Staff

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4. What are the most critical Waste Management challenges your Institution/Organization is currently facing?

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5. What are the most critical training and development needs?

Training/development need	Level of training required

6. Is your Institution/Organization currently conducting any research projects?

Ye s	No

a. If the answer is 'No' to the above question, specify why

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7. Is conducting research part of organization/institutional mandate?

Yes	No

8. Do you do any research as an organization/institution (even if it's not part of your mandate)?

Yes	No

a. If your answer is No, state reasons below

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b. If yes, what kind of research do you do?

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9. Do you think it is essential to incorporate research into your organization/institution mandate?

Yes	No

a. Give reasons for your response to the previous question.

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10. Are the communities you are representing or working with, experiencing any Waste Management challenges/problems that could be solved through policy reforms and applied research?

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11. Are you collaborating with any research institutions or public institution/organization in Waste Management research?

Yes	No

a. If yes, please list some of them

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12. Does your organization/institution have capacity to write fundable research proposals?

Yes	No

13. Do you think Waste Management Resources research collaboration could enhance productivity in your organization/institution?

Yes	No

a. Please elaborate

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14. Do you think your organization/institution has potential to conduct research that could inform practice and policy?

Yes	No

15. What challenges do you anticipate if you could embark on doing research?

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16. Do you think you have enough capacity to conduct research within your organization/institution?

Yes	No

17. What do you think could be done to enhance research capacity in your organization?

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18. Are you familiar with the concept of Action Research?

Yes	No

a. Please elaborate

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19. Do you have any experience in conducting Waste Management Action Research?

Yes	No

a. If yes, please elaborate

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20. Do you think training in Action Research is necessary and important for your organization to deliver its Waste Management mandate and strategic objectives?

Yes	No

21. Do you have staff members within your organization/institution who have been trained in Action Research before?

Yes	No

22. Any other additional comments.....

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