

REPUBLIC OF RWANDA



MINISTRY OF ENVIRONMENT

# Rwanda's Climate Adaptation Monitoring, Evaluation, and Learning System in the Agriculture Sector:

Aims, objectives, and needs

Briefing Note 1 | March 2023 | Aimé Tsinda, Brenda Ntaganda, and Beatrice Cyiza



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**Briefing Note 1**

Ministry of Environment  
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Kigali, Rwanda

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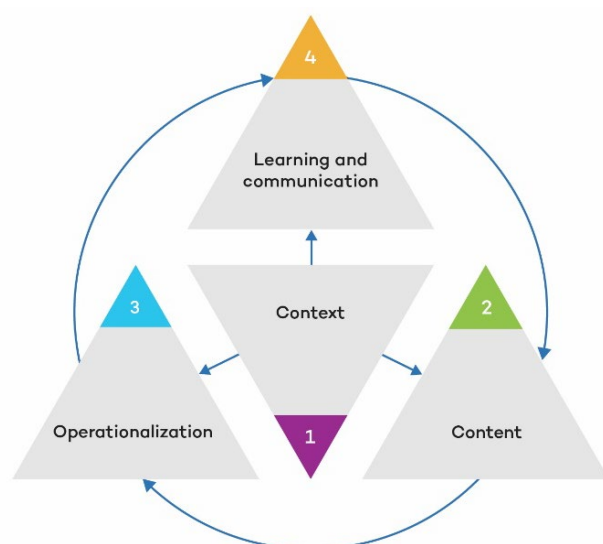
## Foreword

The National Adaptation Plan Global Network supported the Government of Rwanda in the implementation of its roadmap to establish a monitoring, evaluation, and learning (MEL) system for climate adaptation, beginning with a pilot test of the MEL framework for Rwanda's updated nationally determined contribution in the agriculture sector.

Progress on the implementation of MEL in the agriculture sector is set out in a series of briefing notes that follow the framework set out in the guidelines for MEL for the National Adaptation Plan process published by the Deutsche Gesellschaft für Internationale Zusammenarbeit and the International Institute for Sustainable Development. The briefing notes address:

1. **Context:** Identifying the aims and objectives of the MEL system and setting out the policy context that guides it.
2. **Content:** Examining the indicators and types of information and data that are available (or not available) and need to be collected; clarifying the systems needed for data collection.
3. **Operationalization:** Elaborating on the institutional arrangements needed to implement the MEL system and identifying the resources available and needed to run the MEL system.
4. **Learning and communication:** Exploring how the information generated by the MEL system will be communicated, in which formats, and to which audiences (Price-Kelly, et al., 2015).

**Figure 1. Building blocks of an adaptation MEL system**



Source: Adapted from Price-Kelly et al., 2015.

The steps and approaches to operationalize the adaptation MEL system outlined in the briefing notes were informed by a desk review of documentation and consultations with stakeholders from government institutions, international agencies, civil society, and the private sector through interviews, workshops, and field visits conducted between April and November 2022. This briefing note, which is the first in the series, sets out the policy context that guides the MEL system in Rwanda and identifies the aims and objectives of the MEL system.

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## List of Abbreviations

ENR MIS	Environment and Natural Resources Management Information System
GGCRS	Green Growth and Climate Resilience Strategy
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
GoR	Government of Rwanda
M&E	monitoring and evaluation
MEL	monitoring, evaluation, and learning
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MoE	Ministry of Environment
MRV	measurement, reporting, and verification
NAP	National Adaptation Plan
NDC	nationally determined contribution
NMEL	National Monitoring, Evaluation, and Learning
NST	National Strategy for Transformation
REMA	Rwanda Environment Management Authority
SDG	Sustainable Development Goal
UNFCCC	United Nations Framework Convention on Climate Change
UNHLPF	United Nations High-Level Political Forum on Sustainable Development

# 1. Introduction

Rwanda is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement. In fulfilment of its obligations under the Paris Agreement, Rwanda submitted its first nationally determined contribution (NDC) to the UNFCCC in 2016 and an updated NDC in 2020 (Government of Rwanda [GoR], 2020). The updated NDC sets out Rwanda's mitigation and adaptation contributions toward the achievement of the global goals of the Paris Agreement. The actions in the NDC are aligned with and designed to deliver on the aims of Rwanda's Green Growth and Climate Resilience Strategy (GGCRS), which was adopted in 2011 and updated in 2023 to guide the country's actions and priorities on climate change.

Rwanda's NDC provides a plan for how the country will adapt to the impacts of climate change and reduce greenhouse gas emissions. The NDC also highlights the importance of an effective measurement, monitoring, reporting, and verification (MRV) framework for successful implementation of Rwanda's NDC. The NDC states that "an effective MRV system will enable the country to monitor the effectiveness of its mitigation and adaptation measures and facilitate its access to climate finance" (MoE, 2020, p. 58). The NDC also calls for the development of a monitoring and evaluation (M&E) framework for adaptation actions, recognizing that the monitoring and measurement of adaptation follow different processes than the monitoring and measurement of mitigation (See Box 1 for a description of the differences between MEL systems, which are focused on adaptation, and MRV systems, which are focused on mitigation).

## Box 1. The difference between MEL and MRV

The characteristics of climate adaptation and mitigation differ, as does their measurement:

- Monitoring, evaluation, and learning (MEL) is used to refer to the measurement of adaptation, recognizing that adaptation does not have a common global reference metric and that each country needs to define what counts as adaptation and how it will be monitored and evaluated.
- Measurement, reporting, and verification (MRV) is associated with mitigation and the measurement and reporting of greenhouse gas emissions using a common metric (tonnes of carbon dioxide). MRV also includes verifying the emission reductions with the international community to ensure that the reported data is correct and accurate.

Source: Leiter, 2017.

This briefing note is a contribution to Rwanda's process to review the policy context and work to date to develop a MEL system for adaptation. It explores the aims, objectives, and needs of a national adaptation MEL system in the agriculture sector, which is a pilot sector. The operationalization of the adaptation MEL system in the agriculture sector is intended to provide lessons that will in turn guide the establishment of a MEL system for all priority NDC adaptation sectors.

The note delineates the aims and objectives for the adaptation MEL system, drawing on guidance from national policies and documents as well as insights gathered from stakeholder consultations, which included representatives from relevant national ministries, central government institutions, development partners, non-governmental organizations (NGOs), and the private sector. The briefing note concludes by setting out a way forward to establish an adaptation MEL system that meets the aims, objectives, and needs of the government in regard to tracking, evaluating, and sharing knowledge about adaptation actions.

## 2. Policy Context for Adaptation MEL

The National Adaptation Plan (NAP) process in Rwanda is led by the Ministry of Environment (MoE) in partnership with the Rwanda Environment Management Authority (REMA). The two institutions are supported by other ministries and agencies that lead in various sectors, including water, agriculture, land and forestry, human settlements, health, transport, and mining, as well as the cross-sectoral themes of disaster risk monitoring and response, early warning systems, and finance.

Rwanda initiated its NAP process in 2011 with the validation of the GGCRS, which identified mitigation and climate adaptation priorities. The strategy is expected to be materialised through three strategic objectives, articulated around four Thematic Focus Areas, with thematic area 3 (sustainable agriculture, forestry and conservation) being more relevant to the MEL of adaptation in the agriculture sector. The GGCRS guided the preparation of Rwanda's NDC, and an updated strategy was approved in January 2023 (Office of the Prime Minister, 2023) to better reflect new policies and actions, including the National Environment and Climate Change Policy of 2019 and the adaptation priorities identified in the updated NDC that was submitted to the UNFCCC in May 2020.

Rwanda's 2020 NDC provides guidance on the aims of the MEL system,<sup>1</sup> including that the MEL system will assist Rwanda to meet the requirements of the Enhanced Transparency Framework set out in the Paris Agreement. The NDC calls for a monitoring, evaluation, and reporting framework for adaptation (MoE, 2020, p. 69). In addition, the NDC provides information on the institutional arrangements for the MEL of adaptation, calls for linkages with established data management systems, and provides a framework of high-level indicators (MoE, 2020).

Rwanda's adaptation actions are guided by the 2019 National Environment and Climate Change Policy, one goal of which is for "Rwanda to have a clean and healthy environment resilient to climate variability and change that supports a high quality of life for its society" (MoE, 2019, p. 5). The policy highlights the need for tools to monitor the implementation of climate change agreements, including the Paris Agreement, and the importance of addressing the gap in timely and reliable data to inform decision-making (MoE, 2019, p. 23). The policy also calls for a framework for monitoring the impact of climate finance.

The first phase of the National Strategy for Transformation 2017–2024 (NST-1), which is the implementation instrument for Rwanda's Vision 2050, recognizes the environment and climate change as a cross-cutting area that plays a major role in the attainment of inclusive and sustainable development. NST-1 highlights the importance of cross-sector coordination and strengthening monitoring and evaluation (Ministry of Finance and Economic Planning [MINECOFIN], 2017).

The National Agriculture Policy of 2018 recognizes climate change as a threat to agricultural production. It places a strong emphasis on ensuring food security and improving the socioeconomic conditions of people by increasing the productivity and production of crops and by increasing resilience in order to address climate shocks and extreme weather events, such as high-intensity

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<sup>1</sup> This briefing note, along with MoE's work program on tracking and understanding the impacts of adaptation actions, uses "monitoring, evaluation, and learning," which is in accordance with Section 7.9(d) of the Paris Agreement (United Nations, 2015) and consistent with best practices.



rainfall and extended periods of drought (Ministry of Agriculture and Animal Resources [MINAGRI], 2018a). The policy is implemented through a Strategic Plan for Agriculture Transformation (PSTA-4) that includes a monitoring and evaluation plan to enable MINAGRI and stakeholders to track progress toward achieving results. The monitoring and evaluation plan includes a strategic results framework, and it is expected to support evidence-based policy-making and to promote learning in the sector (MINAGRI, 2018b).

The 2015 Result-Based Performance Management Policy for the Rwanda Public Service emphasizes the importance of establishing frameworks to monitor and evaluate progress on the implementation of planned activities across all sectors and institutions (Ministry of Public Service and Labour and MINECOFIN, 2015).

In 2021, MINECOFIN developed the first-ever guidelines on national monitoring, evaluation, and learning (NMEL), which serve as an important tool to strengthen the results-based M&E system, facilitate decision-making by providing credible and useful information, and enable the integration of lessons learned into planning and decision-making processes for the strongest possible NST-1 implementation. These guidelines set out a stepwise process to improve MEL activities toward achieving short-, medium-, and long-term targets and delivering impactful results (MINECOFIN, 2021a).

The adaptation MEL system is guided by Ministerial Order No 005/2021 of 08/04/2021 that determines the procedures for the preparation of a National Report on Climate Change that will enable Rwanda to meet reporting requirements under the UNFCCC and Paris Agreement. The ministerial order calls for the collection of data and the formulation of a chapter on adaptation and vulnerability. It sets out the sectors of interest and the types of information that will be collected and calls for reporting on national programs that facilitate adaptation to climate change, actions that assist with adaptation to climate change, and the identification of adaptation options for priority sectors. It also provides guidance on institutional arrangements and the responsibilities of various organizations, including private companies and NGOs. The ministerial order ensures that relevant data on adaptation is regularly collected and shared with MoE and REMA and that reporting on adaptation takes place on a regular basis as part of overall reporting about progress on addressing climate change (GoR, 2021).

MoE and REMA have prepared and submitted reports to the UNFCCC that include valuable information to inform the MEL of adaptation. The 2021 Adaptation Communication identified the need to build capacity to monitor and evaluate adaptation interventions. It also highlighted that the adaptation MEL framework set out in the NDC will complement the Environment and Natural Resources Management Information System (ENR MIS) and will support national stakeholder engagement and reporting forums, including the joint sector reviews (MoE, 2021c). Further, Rwanda's Third National Communication included a section on climate vulnerability and adaptation that reviewed progress on adaptation in the agriculture sector (REMA and MoE, 2018).

## 3. Work to Support Rwanda's Adaptation MEL System

The Government of Rwanda has recognized the importance of implementing and reporting on the climate change adaptation actions set out in the NDC. This priority is reflected through the various initiatives, some of which are specific to the establishment of an adaptation MEL system while others indirectly provide information and data that is relevant for the MEL system.

### 3.1 Initiatives Focusing on the Monitoring and Measurement of Climate Action

MoE, with the support of the World Bank, prepared a report on the operationalization of Rwanda's MRV framework for the country's updated NDC, including adaptation priorities. The report set out a roadmap to establish the MRV system and provided valuable information on the aim and purpose of the MRV system, data collection and indicators, and institutional arrangements. The report indicated that the NDC MRV system will support the policy cycle by tracking progress toward the achievement of a climate target (which includes collecting data and calculating progress on indicators), reporting on indicators for evaluation purposes, and using the results of the tracking to assess the need to make adjustments to the strategy and to develop policy recommendations (Gashugi et al., 2021).

MoE and MINAGRI, with support from the NDC Partnership, conducted an assessment of the 10 agricultural sector adaptation indicators listed in the NDC, identified baseline values for each indicator, and provided recommendations on how to improve the robustness and efficiency of Rwanda's MRV and MEL systems (MoE, 2021a, 2021b).

The Rwanda Green Fund, in collaboration with MoE and MINECOFIN, developed an implementation framework for the NDC. This framework put together programs, projects, and activities for each measure or priority identified in the updated NDC, specifying the timeframe, expected results, performance indicators, estimated or known budget, potential sources of funding, and responsible entity (MINECOFIN, 2021b).

REMA led the development of the 2015 *Baseline Climate Change Vulnerability Index for Rwanda*, which assessed the socio-economic impacts and spatial vulnerability to climate change (REMA, 2015). A second assessment of climate change vulnerability in Rwanda, *Climate Change Vulnerability Assessment and Index Report of 2019*, identified national and subnational vulnerability indicators to monitor progress in addressing the impacts of climate change and building adaptive capacity (REMA, 2019a).

### 3.2 Initiatives and Actions That Generate Information Relevant for Adaptation MEL

MoE and REMA have collected data on climate trends, vulnerabilities, and the economic and social dimensions of climate change that can inform adaptation MEL analyses. This includes the ENR MIS that is managed by MoE and is the principal repository for environment and natural resources information and data. Adaptation data can be processed and assessed through this ENR MIS.

REMA conducts an annual assessment of the implementation of environment and climate change activities by reviewing sector ministries and districts reports. The assessment aims to determine the implementation level of environment and climate change activities, and it provides recommendations on how to better plan environment and climate change actions as well as how to increase budget allocations and expenditures (REMA, 2019b).

The Rwanda Green Fund formulated the Strategic Programme for Climate Resilience, which included an investment program to improve adaptive capacity in the agriculture sector, and set out M&E arrangements aligned with Rwanda's national M&E process (MoE, 2017).

The Strategic Plan for Agriculture Transformation 2018–2024 is a national framework for the agriculture sector that includes an M&E framework, which helps in tracking progress toward expected results and in assessing the impact of actions (MINAGRI, 2018). MINAGRI (2020) produces an annual report, and the National Institute of Statistics of Rwanda (2020) conducts Seasonal Agriculture Surveys and Agricultural Household Surveys that generate valuable information to feed into the adaptation MEL system.

Various forums help to track the performance or achievements of a sector (e.g., agriculture) and discuss the next steps toward achieving targets. For example, the Joint Sector Review brings together various stakeholders—including representatives from government, development partners, civil society, and the private sector—to discuss key issues such as sector outcomes and the overall impact of programs. Participants engage in dialogue, review the status of programs, and monitor expenditure, progress, and performance in the implementation of the sector targets as articulated in the Strategic Plan for Agriculture Transformation 2018–2024 (MINAGRI, 2018). The Joint Sector Review emphasizes the accountability of governance to improve service delivery and encourage proper collaboration with stakeholders of the sector. The 2020–21 report for the agriculture Joint Sector Review noted the potential impact of climate shocks on the sector and the need to increase the sector's resilience. In addition, the report examined progress on United Nations Sustainable Development Goals (SDG) indicators (MINAGRI, 2020b) and suggested that this process could provide an opportunity to review adaptation MEL reports and share lessons learned.

The Government of Rwanda is a party to several Multilateral Environmental Agreements, and it monitors and reports on national actions to achieve the goals of these various international agreements. For example, Rwanda promotes a synergistic approach to implementing the UNFCCC and the Convention on Biological Diversity (Terton et al., 2022), and its reporting on the convention includes information on adaptation actions (REMA, 2020). The process to report on the implementation of the SDGs includes, for example, information about crop yields, undernourishment, and adaptation action. The adaptation MEL system could provide valuable information for Rwanda's 2023 voluntary reporting on the SDGs (UNHLPF, 2019). Reporting under the Sendai Framework on Disaster Risk Reduction includes information on the impacts of extreme weather, such as the area of crops damaged by floods (Ministry in charge of Emergency Management, 2022).

Various development partners are engaged in adaptation programming, and these partners have developed MEL systems and undertake MEL, which could provide useful inputs and learning for the MoE's adaptation MEL system. In addition, private-sector entities and NGOs are critical stakeholders

in delivering priority NDC adaptation programs, and MoE has taken initial steps to collect information on their adaptation actions and the impacts of these actions.<sup>2</sup>

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<sup>2</sup> MoE engaged NGOs and private sector entities in an awareness raising workshop on adaptation MEL in August 2022. In addition, MoE prepared case studies in 2022 to explore how organizations have implemented NDC adaptation interventions in the agriculture sector and the impacts of these actions at the community level. The workshop report and the case study report are available upon request from the MoE.

## 4. Aims and Objectives of the Adaptation MEL System

The aims and objectives of the adaptation MEL system are guided by work that has been completed by the government as described in Sections 2 and 3. For example, the government guidelines on NMEL provide definitions for key MEL terms (see Box 2) and include guidance that informs the MEL of adaptation actions set out in Rwanda's NDC. Government ministries are expected to follow monitoring procedures and carry out evaluations in line with the guidelines (MINECOFIN, 2021b).

### Box 2: Adaptation MEL: Definitions

- **Monitoring:** A continuing function that uses the systematic collection of data on specified indicators to show whether the implementation of a program or policy is achieving its intended objectives and outputs. For national policies and programs, it is the responsibility of the implementing institution to monitor progress across sectors and institutions.

The monitoring of adaptation includes the collection of information on specified parameters to track the progress of adaptation actions and the achievement of adaptation objectives. Monitoring helps to show whether the adaptation actions are on track.

- **Evaluation:** The objective measurement of the changes to which the programs and policies have contributed and the assessment to understand how these changes happened. Are the actions achieving their intended results? Evaluation results should inform future actions and programs.

The evaluation of adaptation actions seeks to determine their effectiveness, impact, efficiency, and sustainability and the extent to which they have fulfilled specific objectives.

- **Learning:** A process to reflect upon the information generated from monitoring and evaluation and to then use this information to inform decision-making and improve programs and actions to achieve desired results.

Learning about adaptation includes producing knowledge by exploring what has worked and what has not and by determining which adaptation actions have led to better development outcomes despite worsening climate hazards (and which have not) and why.

Source: MINECOFIN, 2021b.

The NDC sets out the aims and objectives of the adaptation MEL system, which include actions to monitor indicators, evaluate actions, and share and apply learning (MoE, 2020):

#### Monitoring:

- “Report progress made towards the targets defined in Rwanda's NDC and to track the progress made in the implementation of ... adaptation actions” (p. 59).
- Identify “indicators that are relevant at global and national level” (p. 69).

**Evaluation:**

- “Measure the impact to know that change has happened” (p. 69).

**Learning:**

- “Facilitate identification of challenges to inform policy changes essential to improve implementation” (p. 59).

In addition, the adaptation MEL system should be cognizant of NDC guidance to:

- Track “the use and results of means of implementation and support including capacity building, technology transfer and finance” (p. 59).
- “Capture non-GHG impacts on environmental, social and economic effects of the NDC actions that would lead to transformational change towards achieving national sustainable development goals” (p. 59).
- “Take into account gender mainstreaming that is central to Rwanda’s sustainable development process” (MoE, 2020, p. 59).

The MoE held consultations with stakeholders in 2022 that confirmed the aims and objectives and further added that the adaptation MEL system should:

- Examine what worked, what did not, and why; establish causal relations.
- Be dynamic and flexible and obtain updates as required through the NAP process.
- Reinforce the learning component by regularly recording the successes and challenges of the interventions to inform future actions.
- Establish measurable indicators that can inform stakeholders through regular reporting on how much progress is being made in achieving the desired results.

## 5. The Way Forward

The Government of Rwanda has provided a legal mandate for adaptation MEL through the Ministerial Order that calls for the preparation of a National Report on Climate Change and has provided guidance through the NMEL guidelines. The updated NDC stipulates the establishment of a system to measure adaptation actions and impacts. It also highlights the importance of identifying and tracking indicators, measuring the impact of adaptation actions, and using the information to inform policy. In addition, the MEL system will use this information as input for national and international reports, including the mid-term evaluation of the NDC and Rwanda's first Biennial Transparency Report, which is to be submitted to the UNFCCC Secretariat by December 2024.

Clarifying the aims and purposes of the MEL system is of particular importance in the design of Rwanda's adaptation MEL system. The design and operationalization of the system needs to fulfil these various purposes, and moving forward to operationalize the adaptation MEL system in the agriculture sector requires action on the following:

### **Aims and Objectives**

- Ensuring that the indicators respond to the key aims and objectives of the adaptation MEL system as set out in this report.
- Identifying the tools and information needed to fill gaps in achieving the aims and objectives of the adaptation MEL system.

### **Institutional Arrangements**

- Reviewing and suggesting improvements to the proposed institutional arrangements for the MEL of adaptation in the agriculture sector.
- Assessing compatibility of the adaptation MEL system with the ENR-Result-Based Performance Management system and other relevant M&E systems.

### **Data Collection Processes**

- Reviewing the indicators and the information collected to date and clarifying data and information needs.
- Establishing processes to collect and manage data in a timely and thorough manner.

### **Building on Work to Date**

- Determining how the recommendations in previous M&E-relevant studies have been implemented—including the development of a matrix that indicates the recommendations formulated, the studies they are from, the stakeholders they were addressed to, and how they are being implemented.
- Reviewing Rwanda's climate vulnerability and risk assessment and assessing how it can be aligned with and inform the adaptation MEL system.
- Exploring the alignment with REMA's assessment of the implementation of environment and climate change activities by sector ministries and districts.
- Exploring synergies with data collection and reporting for the SDGs, Convention on Biological Diversity, and the Sendai Framework on Disaster Risk Reduction.

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