Lessons from Namibia's Approach to Developing a Monitoring, Evaluation, and Learning System for Adaptation in the Agriculture Sector

NAP Global Network

Key Messages

- A monitoring, evaluation, and learning (MEL) system for adaptation needs to be aligned with other existing national MEL systems related to national development. This is important for better coordination and coherence in terms of data collection, analysis, and reporting. As part of the development of Namibia's MEL system for the agriculture sector, institutional alignment and data flow process follows a structured approach to ensure that information is collected from regional and local authorities and is streamlined to support decision-making at the national level. Namibia's MEL system for climate change adaptation builds on the existing institutional arrangement to enhance coordination and data flow from the agriculture sector, while also adjusting these arrangements for climate change activities.

- Developing the MEL system for adaptation for the agriculture sector in Namibia has demonstrated a strong need for clear roles and responsibilities for MEL activities. These roles and responsibilities should be outlined and anchored within a department or unit that is dedicated specifically for MEL activities. This department or unit should cut across all the institutions that are responsible for the direct implementation of national initiatives and actions on adaptation.

- Skills capacity gaps are key constraints in the development of a MEL system for adaptation in the agriculture sector in Namibia. The development of technical capacities in MEL is essential for the operationalization of MEL systems. Several training sessions were held to develop a common understanding on the use of agriculture indicators and reporting processes. Capacity building should focus on sustained long-term training programs to address evolving needs, including staff turnover.

Introduction

Namibia is recognized as being among the driest countries in sub-Saharan Africa, facing extreme water shortage due to low precipitation rates (Republic of Namibia, 2022; The World Bank Group, 2021). The country is prone to climate-related disasters such as floods and droughts. Over the past fifteen years, the country has faced significant dry spells that have impacted the majority of people in rural areas, who are dependent on rain-fed agriculture for survival and livelihood (World Food Programme, 2019). This increase in vulnerability is further exacerbated by the limited capacity of communities to respond to the effects of climate change

Several instruments to support adaptation have been proposed to UNFCCC by Namibia. These include four national communications, Biennial Update Reports, and one adaptation communication (GCF, 2023). Two Nationally Determined Contributions (NDC 1 and 2021 NDC update 2) and the adaptation communication emphasize the need for adaptation, as well as the need to develop a national adaptation plan (NAP) (GCF, 2023). Namibia has submitted a proposal to the GCF Readiness Programme for a USD 3 million grant for the NAP process, including the development of a NAP document, with the Namibia Nature Foundation as its delivery partner. This proposal was approved in 2023; at the time of writing, the funds have not been disbursed.

Box 1. Green Climate Fund Readiness Programme for Adaptation planning proposal, approved 2023

Amount: USD 2,999,242

Delivery partner: Namibia Nature Foundation

Priority sectors for adaptation:

- Agriculture and food security
- Water resources
- Biodiversity and ecosystems
- Health
- Infrastructure
- Fisheries and aquaculture
- Coastal zones

Key MEL activity: An integrated monitoring, evaluation, and learning (IMEL) system for adaptation to be developed at the national (sub-national and sectoral) level, including participatory, project-level mechanisms for monitoring, evaluation, and learning.

Status of a MEL System for Climate Change Adaptation in Namibia

There are several challenges to the establishment of a MEL system for climate change adaptation in Namibia, including the absence of MEL structures within the public sector, budgetary constraints, and human capacity gaps. Adaptation is high on the country's agenda, with a range of actors including governments, the private sector, and civil society involved in adaptation activities (Republic of Namibia, 2022). The NDC 2021 has prioritized 33 measures to address climate change impacts through adaptation across seven sectors: agriculture and food security; water resources; biodiversity and ecosystems; health; infrastructure; fisheries and aquaculture; and coastal zones.

This sNAPshot explores Namibia's approach to developing a MEL system for adaptation in the agriculture sector as part of the NAP process. Advancement of the MEL system in Namibia will help to shape the theory of change for the NAP, including providing guidance on the results and indicators formulation.

Namibia's Approach to Developing a MEL System for Adaptation in the Agriculture Sector

MEL systems enable countries to adapt to a changing climate. They ensure that NAP processes are context specific and adaptive (Beauchamp et al., 2024). Such systems enable users to measure progress, assess impacts, and foster learning to ensuring that NAP processes can achieve the desired outcomes (Beauchamp et al., 2024). In Namibia, the development of a MEL framework for adaptation is needed to build a strong foundation to track adaptation interventions (Republic of Namibia, 2022).

Namibia's national MEL framework for adaptation provides clear objectives, purpose, benefits, focus, and the use of data and information. The framework was developed through a consultative process that engaged the various levels of national, regional, and local governance. Following the development of the national MEL framework, the government deemed necessary to narrow the scope to a sector level to pilot a MEL system. This was due to budget limitations and to ensure that good practices from the pilot can be used for the broader development of the MEL system for adaptation across other sectors. The following narrates the step-by-step approach to developing the agriculture sector MEL system for adaptation:

1. Development of baselines for indicators in the agriculture sector

Baselines are important as they provide a reference point to track progress. Baselines often make use of existing data as starting points, but where existing data does not exist, the baselines for the respective indicators can be zero (Beauchamp et al., 2024). The first step to developing the MEL system for adaptation in the agriculture sector for Namibia was to compile indicator baselines. The baseline report was compiled by the Ministry of Environment, Forestry and Tourism (MEFT) and the Ministry of Agriculture, Water and Land Reform (MAWLR) in 2023.

Table 1. Theory of change for the agriculture sector adaptation MEL system

Goal 13: Take urgent action to combat climate change and its impacts	
Strategic objectives	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters.
	13.2 Integrate climate change measures into national policies, strategies, and planning.
	13.3 Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.
Strategic result	The agriculture sector is resilient and adapted to climate change.
Outcome	The proportion of food insecure individuals has dropped, and food production has increased cumulatively over the Fifth National Development Plan (NDP5) period.
Output 1	Agriculture service delivery improved leading to increase in agricultural production.
Output 2	Forward and backward linkages strengthened with increased procurement of locally produced agricultural products.
Output 3	Farmer's resilience to climate change is improved through sustainable and smart agricultural practices.
Strategic actions	1. Increase agricultural production for both cereals and horticulture and livestock. 2. Promote the planning of drought resistance varieties. 3. Enhance preparedness for effective response, recovery, and reconstruction. 4. Develop agro-processing industries by utilizing local produce and regional value chains. 5. Enhance animal health and production. 6. Increase smallholder or communal farmers' productivity. 7. Reduce enteric fermentation. 8. Reduce wood removal and increase carbon sequestration. 9. Improve fodder production and create fodder banks.

Source: Namibia's Agriculture Sector Indicator Baseline Report, 2023.

This baseline report provided detailed information on the indicators that were available and used to measure the implementation of the sector's adaptation actions and activities. This data was identified based on the review of key national reports where the indicators were reported, including Livelihoods, Food and Nutrition Security Monitoring Report, National GDP Report, Crop Prospects and Food Security Report, the Agriculture Statistics Bulletin, and the Climate Bulletin. The most recent data available on the indicators, from 2023, was used as the baseline value.

In addition, the theory of change was developed, representing the relationship between the key adaptation actions and the outputs and outcomes that are aligned with the national priorities and results (see Table 1).

2. Revision of the agriculture sector indicators for adaptation

During the compilation of the agriculture sector baseline report, significant gaps were identified, including the absence of adaptation-specific indicators. This justified the need to review the indicators to ensure that they are tailored to climate change adaptation, therefore ensuring the effective measurement of performance in relation to the implementation of the agriculture sector adaptation actions and activities. In 2024, a revision of the agricultural sector indicators was carried out by the MEFT and the MAWLR in consultation with both regional and national stakeholders within the sector.

3. Capacity building on MEL

Also in 2024 and following the revision of the indicators, capacity building was undertaken under the coordination of MEFT and MAWLR. The need for capacity building for the national and regional technical stakeholders responsible for the data collection, analysis, and reporting (Agriculture Marketing and Trade Agency [AMTA], Namibia Agronomic Board, Namibia Meat Board, Namibia Statistics Agency, National Planning Commission, MEFT, and MAWLR) was deemed necessary due to the gaps identified in skills and knowledge on MEL. To address this, four trainings were administered, which helped to create a common understanding of the indicators and the results used to measure actions and activities, including improvement in monitoring and reporting.

4. Development of the roadmap for implementation of the adaptation MEL system for agriculture

A roadmap for implementation of the adaptation MEL system for agriculture was developed in 2024 by MEFT and MAWLR in consultation with the relevant national and regional stakeholders. The roadmap outlines a step-by-step roll out of actions leading to the realization of a functional MEL system for the sector. Budgets and timelines were created for each action, which helped with effective resource mobilization both inside and outside government through partnerships.

The actions under the roadmap are as follows:

- Conduct national and regional stakeholder consultations to identify the institutional arrangements for the implementation of the agriculture sector MEL system for adaptation.

- Conduct seven regional consultations to agree on the content for the training get feedback on the indicator revisions, and provide inputs on the workplan.

- Conduct one national and three regional trainings to enhance capacities in basic understanding of climate change adaptation, familiarization of MEL concepts, and reporting tools.
- Revise and adopt of the agriculture sector baseline indicators.
- Set up institutional and coordination structures of the agriculture sector adaptation MEL system.

In addition, the roadmap identified the following steps to be completed in 2025:

- Standardization of data collection, monitoring, and reporting tools.
- Agreement on data collection and reporting timelines.
- Automation of data collection and reporting.
- Use of the agreed information flow process that was adopted for the baseline report.
- Agreement on the housing of the centralized database.
- Agreement on data management protocols.
- Data access and retrieval by the agriculture sector stakeholders (AMTA, Namibia Agronomic Board, Namibia Meat Board, Namibia Statistics Agency, National Planning Commission, MEFT, MAWLR), including publication and distribution.

Institutional Arrangements for the Implementation of the Agricultural MEL System

A clear and well-defined institutional arrangement is key to implementing a functional MEL system. Institutional arrangements ensure effective coordination and collaboration among stakeholders. Clear roles and responsibilities are helpful in aligning MEL activities across different sectors and different levels of governance (Beauchamp et al., 2024).

The institutional arrangements for the MEL system for adaptation in the agriculture sector in Namibia was informed by stakeholders from national, regional, and local authorities through an extensive consultation process. The regional authorities refer to all the 14 regional councils in the country, while the local authorities are the towns and cities within the 14 regions of Namibia. The institutional arrangements were achieved through the alignment of the actions, outputs, and outcomes to the national ones, during the development of the theory of change.
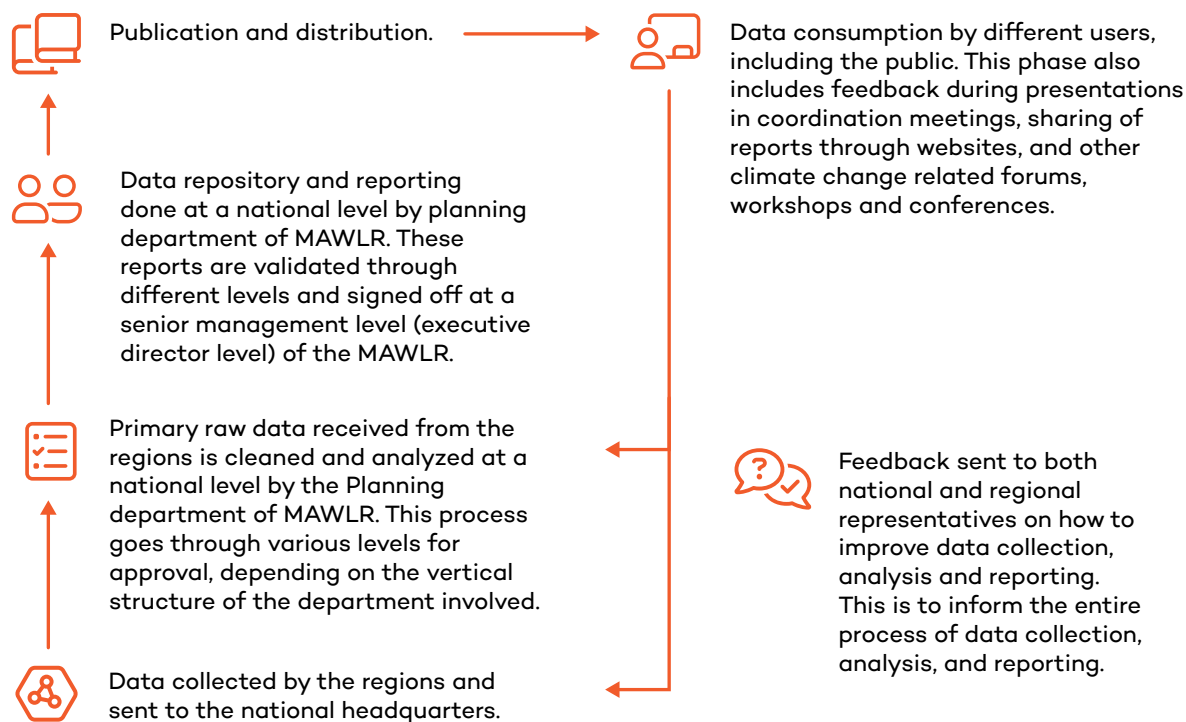
Overall, MEFT is responsible for overseeing activities within the agriculture sector. Its main responsibilities are to provide an oversight and coordination of the climate change adaptation initiatives under the sector while MAWLR is responsible for the direct implementation of and reporting on progress regarding implementation of the sector adaptation initiatives.

Capacity building on climate change adaptation and resilience is undertaken by MEFT, which has an additional responsibility to provide sustained capacity building to stakeholders (AMTA, Namibia Agronomic Board, Namibia Meat Board, Namibia Statistics Agency, National Planning Commission, and MAWLR) on issues pertaining to adaptation and MEL. These capacity building programs are

provided by technical consultants. The overall coordination of the adaptation actions and activities is the responsibility of the Climate Change Unit (CCU), which is within the Department of Environmental Affairs.

Figure 1. The data and information flow for the agriculture sector adaptation MEL system

Publication and distribution.

Data consumption by different users, including the public. This phase also includes feedback during presentations in coordination meetings, sharing of reports through websites, and other climate change related forums, workshops and conferences.

Data repository and reporting done at a national level by planning department of MAWLR. These reports are validated through different levels and signed off at a senior management level (executive director level) of the MAWLR.

Primary raw data received from the regions is cleaned and analyzed at a national level by the Planning department of MAWLR. This process goes through various levels for approval, depending on the vertical structure of the department involved.

Feedback sent to both national and regional representatives on how to improve data collection, analysis and reporting. This is to inform the entire process of data collection, analysis, and reporting.

Data collected by the regions and sent to the national headquarters.

Source: Namibia's Agriculture Sector Indicator Baseline Report, 2023.

Data Flow Process in Namibia's MEL System for Adaptation in the Agriculture Sector

The flow of data and information from regional to national stakeholders is shown in Figure 1.

The data collection, analysis and reporting within the sector is undertaken by multiple stakeholders, including the National Statistics Agency and MAWLR. Data collection occurs at the regional level and analysis and compilation at the national level.

The data providers are the extension officers based in the regions, who work under the Directorate of Agriculture Production, Extension and Engineering Services (DAPEES). In addition, data are also collected by regional stakeholders including government parastatals that collect information specifically on agronomic activities, horticulture marketing and trade, and livestock marketing. Once data are received from different regional bodies,

the analysis and compilation of reports is carried out at a national level by MEFT, MAWLR, AMTA, Agronomic Board, and the Meat Board. Once reports are compiled, they go to MAWLR for final approval and endorsement.

The data repository systems are housed by the various stakeholders (MEFT, MAWLR, AMTA, Agronomic Board and the Meat Board) that collect, analyze, and report on the agriculture sector adaptation actions and activities. There is a need to have a more central repository for data to address the data fragmentation issues.

Mainstreaming Gender in the MEL System for Adaptation in the Agriculture Sector

To address structural and systemic inequalities that exacerbate climate vulnerability, MEL systems should consider gender. A systematic approach is needed to mainstream gender in the development of targets, indicators, and data collection approaches to ensure that the results of adaptation present on-the-ground realities on risks and vulnerabilities for all (Beauchamp et al., 2024). This is to ensure that the results of adaptation present on-the-ground realities on risks and vulnerabilities for all.

Significant gaps related to gender were identified during the compilation of the agriculture sector indicator baselines report for adaptation. These gaps needed to be addressed to ensure that gender is fully mainstreamed in all processes from data collection to analysis and reporting.

These gaps were addressed by including gender-specific indicators that ensure parity and enable qualitative reporting highlighting gender factors. These included issues of land ownership in communal and commercial areas, livestock and crop marketing by gender, and sex aggregation of farmers:

- total female/male farmers that own land in communal areas,
- % of female/male farmers accessing credit through agriculture financing institutions.

Mainstreaming the consideration of gender will allow for a more detailed analysis of how climate change affects different genders, including how national initiatives towards improved resilience and adaption to climate change are benefiting different genders.

Lessons Learned and Ways Forward

1. **Government ownership and leadership of projects on adaptation supported by development partners and their implementation is key to success.** Such ownership will help to fast track projects and lead to improved coordination.

2. **Cost sharing between development partners and government through relevant ministries is important because of limitation in resources (human and financial).** This core-funding approach guarantees the successful completion of projects supported by development partners to complement government efforts.

3. **Gender gaps still exist in most nationally led processes of data collection, analysis and reporting.** This makes it difficult to understand the gender dimensions of climate change impacts and how adaptation benefits different genders. It is important that gender is integrated from conceptualization to implementation of projects to ensure that all analysis, monitoring, and reporting considers the gender-related aspects of climate change.

4. **Data collection and consultations are costly.** Data collection and consultation must be carefully considered because country contexts differ. This difference is associated with the levels of devolution of powers, governance, and geographical sizes and the distance between regions/provinces. It is important that governments and their development partners consider this when financing projects that require extensive consultations with all levels of stakeholders including national, regional, and local authorities.

Cost also has implications on indicator selection for data collection purposes. Selecting appropriate indicators from an existing set of indicators can help to manage costs, especially when indicators are selected based on data already being collected by different agencies.

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About the NAP Global Network

The NAP Global Network was created in 2014 to support developing countries in advancing their NAP processes, and help accelerate adaptation efforts around the world. sNAPshots highlight examples of how countries are currently approaching different aspects of the NAP process. If interested in participating the NAP Global Network, please sign up online.

The opinions, findings and conclusions stated herein are those of the authors and do not necessarily reflect those of the Network's funders.

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