# Prioritization Methodology Brief

## Background

This methodological brief was developed by Genesis Analytics, based on their experience with the NDC Partnership and lessons learned conducting prioritisation exercises of NDC measures in developing countries. The brief includes an introduction to the topic of prioritization, an overview of the suggested steps to follow in initiating and conducting a prioritizaton exercise, and a summary of lessons learned in applying this methodology. A detailed example is included in the Annex.

## Introduction to Prioritization

Prioritisation of NDC measures enables enhanced decision-making capabilities for governments to mobilise financial and technical resources in a targeted manner and to synergise with other national development priorities, while advancing NDC outcomes. More specifically, a prioritisation exercise:

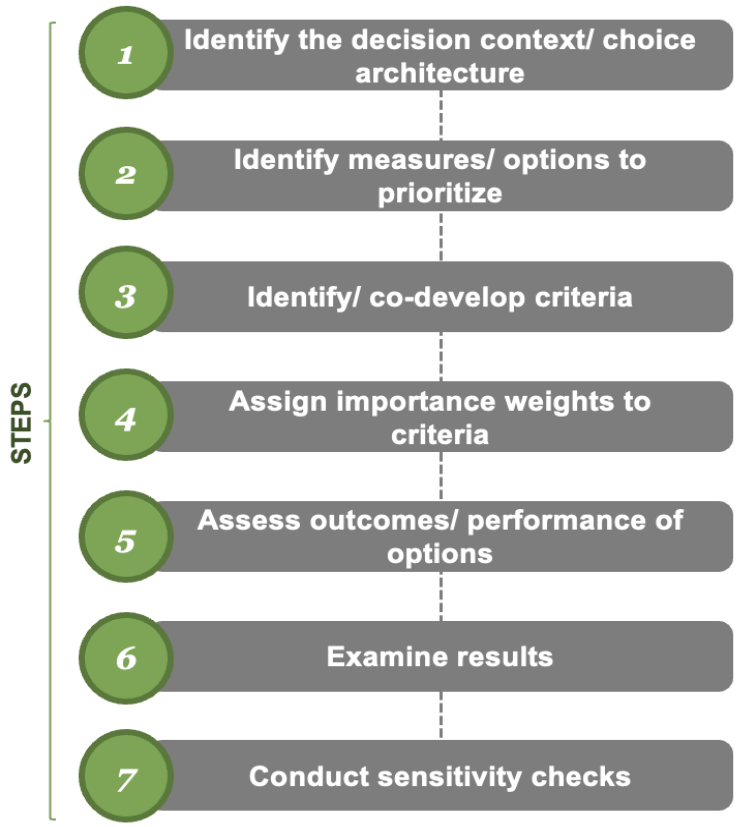
- Considers the objectives, constraints and opportunities of various climate actions and focuses on resource allocation and dedicated efforts.
- Involves an analysis of adaptation and mitigation actions against a set of jointly developed criteria including sectoral complementarity, cost-effectiveness, feasibility, socio-economic development progress and/or scalability.
- Requires the collaboration and active participation of policymakers, subject matter experts, and government stakeholders to assess the measure components comprehensively against the benchmarked criteria.

Applying a methodology based on principles of Multi-Criteria Decision Analysis (MCDA) allows for capturing diverse, and often conflicting, perspectives of a vast set of stakeholders involved. The analytical framework combines desk research and extensive stakeholder engagement through quantitative and qualitative phases.

## Steps to Conduct a Prioritization Exercise

The step-by-step process to undertake a prioritisation analysis is summarized in Figure 1 below. The suggested sequence provides an outline of the critical milestones in the analytical process, which equip practitioners with a compass to effectively implement and overcome potential challenges through the prioritisation exercise.

**Figure 1:** Key steps involved in the MCDA process of prioritisation




1. **Identify decision context.**

The first step is to conduct and review secondary desk research on the country's demographic, socioeconomic and climate context as a basis for analysing the development and progress of its NDCs. The research will provide insights into the specific climate, social, and/or economic vulnerabilities and their sectoral impacts. This step also involves identifying the sub-sectors with significant GHG emission contributions and the interventions that can contribute to their reduction. This will inform the measures and potential actions to be taken into consideration.

2. **Identify measures and/or options to prioritise.**

The aim of the second step is to agree on the activities or projects to compare with the country's NDC outputs. Through initial stakeholder consultations identify priority or at-risk sectors and measures in relation to the secondary desk research conducted from which the criteria will be built upon. Usually these will be the outputs in the NDC Implementation Plan, however there is scope for more targeted approaches which identify concrete projects that can yield more specific insights.

3. **Identify and co-develop criteria**

The third step is to propose a steering committee that includes sectoral representatives (for instance officials in NDC sectors), the aim of which is to have an exhaustive representation of the sectors related to the vulnerabilities identified in the background research. The steering committee will brainstorm and co-develop the criteria that will be used for the prioritisation exercise. The criteria selected might change and differ between countries, as these will represent the national and regional preferences. Some overarching or indicative criteria might include:

- Perceived Impact on socioeconomic development

- Complementarities with national and sectoral plans
- Climate change risk (losses avoided by poor people per year) or GHG mitigation impact, depending on whether an adaptation or mitigation measure is assessed.
- Synergy with action plans under Multilateral Environmental Agreements
- Cost Effectiveness

### 4. Assign importance weights to criteria.

The fourth step is to assign numerical values to the criteria co-developed, this can be in the form of percentages. A straight-forward approach can be based on the consensus reached by a group of experts based on their subjective assessments. A more objective methodology could involve the application of a survey to the same group of experts. Genesis referred to the Analytical Hierarchy Process (AHP) as the baseline methodology to calculate the relative importance weights of those criteria. The AHP allows to quantify priorities across sectors and compare them in a pair-wise manner:

- The first step is to find the geometric mean (V), which is a type of average. The geometric mean of each criterion can be found by multiplying all the relative importance scores from the row and taking the *n*th root of this product (where *n* = total number of criteria).

$$V1 = \sqrt[7]{x1 * x2 * x3 * x4 * x5 * x6 * x7}$$

- Next, the criterion's geometric mean is divided by the sum of the geometric means of all the criteria. The resulting decimal is the weight (W) of that criterion. This method is called normalisation, because it ensures the sum of all weights equals 1, or 100%.

$$W1 = \frac{V1}{V1+V2+V3+V4+V5+V6+V7}$$

The respective criteria quantification process as well as the resulting weights can be recorded in a Table like the one below.

**Table 1. Example of Prioritisation in Malawi: Matrix of relative importance scores generated through consultations and aggregate criteria weights**

| Criteria | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| **Adaptation and mitigation benefits** | 1.00 | 4.00 | 3.00 | 4.00 | 4.00 | 6.00 | 4.00 |
| **Complementarity with national/ other development priorities** | 0.25 | 1.00 | 4.00 | 4.00 | 5.00 | 5.00 | 5.00 |
| **Cost effectiveness potential** | 0.33 | 0.25 | 1.00 | 5.00 | 6.00 | 5.00 | 5.00 |
| **Technical feasibility** | 0.25 | 0.25 | 0.20 | 1.00 | 5.00 | 5.00 | 4.00 |
| **Potential advancements in socio-economic development** | 0.25 | 0.20 | 0.17 | 0.20 | 1.00 | 4.00 | 4.00 |
| **Implementation timeline** | 0.17 | 0.20 | 0.20 | 0.20 | 0.25 | 1.00 | 4.00 |
| **Scalability** | 0.25 | 0.20 | 0.20 | 0.25 | 0.25 | 0.25 | 1.00 |
| **Geometric mean** | **0.30** | **0.41** | **0.55** | **0.97** | **1.68** | **2.57** | **3.50** |
| **Criteria** | **Relative Importance Weights** | | | | | | |
| **Adaptation and mitigation benefits** | **32%** | | | | | | |
| **Complementarity with national/ other development priorities** | **23%** | | | | | | |

| | |
|---|---|
| **Cost effectiveness potential** | **18%** |
| **Technical feasibility** | **11%** |
| **Potential advancements in socio-economic development** | **7%** |
| **Implementation timeline** | **5%** |
| **Scalability** | **3%** |

5. **Assess outcomes and performance options**

The fifth step is to implement a perception-based survey with quantitative questions. To maximize engagement and answers, it is suggested that the survey be administered as part of an in-person meeting among the sectoral representatives. If an in-person event is not possible, the survey can be administered online. The survey will provide a holistic perspective of the different outcomes and allow to allocate weights that respond to the criteria mentioned. The survey will include a scoring system ranging from 1 (least important) to 5 (very important). This will allow the comparison of results between sectors. This can be complemented by means of qualitative discussions in the context of breakout groups. This format will enable stakeholders to exchange views and refine their perceptions, generating broader consensus and complementing the quantitative results.

6. **Examine results**

The sixth step is to analyse the responses given to the survey and aggregate the results to arrive at the prioritised options. To do that, allocate the assigned weights of the criteria against the results of the subjective assessment in the perception survey. Finalise this step by calculating the formula with weighted averages. If you use a platform like Google Forms, the survey can be linked to a spreadsheet, which if correctly referenced with the above mentioned formulas can produce results in an automatic manner. Qualitative insights can be incorporated to inform step 7 or when various measures have similar scores. Ultimately, it is fair to acknowledge that quantitative surveys suffer from biases, such as fatigue or sectoral sample sizes or composition. Through the use of qualitative responses in the survey or Focus Discussion Groups, the prioritisation exercise will profit from more nuanced assessments that can better inform decision making.

7. **Conduct sensitivity checks if required**

FInally, as an additional step to capture changes in values of weights sensitivity checks can be performed. By adjusting criteria weights, this optional step allows to assess how priorities differ based on evolving stakeholder perceptions.

## Lessons from practice

- Align priorities with government officials at the beginning of the process. A sensitisation webinar can contribute to set expectations and define the purpose and benefits intrinsic to the prioritisation exercise. This webinar can be a platform to further disseminate the NDC Implementation Plan and strengthen sectoral ownership.
- Ensure that the officials participating in the survey are actively involved in sector planning and implementation. It is essential that the initial stakeholder mapping ensures that the officials introduced have a good understanding of the sectors being assessed for the qualitative analysis to be successful.
- Optimize the number of criteria used in the scoring system. Five or six criteria can synthesize a wide range of elements. Each criteria can be complemented with a description that provides a definition of the elements to be considered. For example, if you are referring to economic growth, you can ask stakeholders to consider the potential for job creation in

addition to the impact on GDP. If you opt for a broader yet clear formulation this can encapsulate similar notions of impact and relevance. This guidance can enable more nuanced responses by stakeholders.

- Ensure that the chosen criteria complement each other and there is a minimum overlap. For example, it can be assumed that if the measure is included in an existing sectoral strategy, there is political ownership. Therefore, these two criteria should be clustered, providing space to a different criteria. For example, policy alignment could be complemented with impact on poverty reduction and GHG emission mitigation potential, which offers a complementary angle to the analysis.
- As seen in the Genesis engagements, while online surveys are cost efficient and relatively easy to coordinate, there is a risk of not receiving complete responses and therefore not helping to optimise data collection processes. Stakeholders' time is valuable and it is unlikely that they will allocate half an hour to complete an online survey. If you opt to administer an online survey, ensure that the time required minimizes the burden on stakeholders, otherwise it is unlikely that you will receive sufficient answers to have meaningful results.
- If you opt for a comprehensive approach, a workshop provides the most functional format to ensure the comprehensive completion of the survey. Propose an initial two-day face-to-face workshop covering both qualitative and quantitative components. These consultations will help to create a conducive environment for discussions related to prioritisation analysis. The first day will be based on a quantitative assessment covering all outputs of the implementation plan. The second day should focus on the delivery of qualitative discussions after the survey completion to generate complementary insights and knowledge on prioritisation.

# Annex: The method in practice

The caption below shows introduction and instructions to the prioritisation survey carried out in Zimbabwe:

**Instructions:** The following is a prioritisation exercise based on your subjective scoring of the different outputs identified by stakeholders. You are supposed to have a minimum knowledge of the sectoral plan through the discussion in the previous breakout group and you can use the working document for reference in this scoring exercise. When scoring each measure try to benchmark your answers with the other outputs (e.g. avoid scoring with 5 systematically). The scale goes from lowest (1) to maximum (5) score.

**1) Perceived impact on GHG emissions / Resilience building** (potential emission mitigation and climate adaptation effects)
Weight: 20%

**2) Perceived potential for co-benefits and linkages to other sectors** (The extent to which the action can produce mitigation and adaptation benefits or produces gains affecting various sectors)
Weight: 10%

**3) Perceived impact on socioeconomic development** (potential impact on economic growth, jobs creation, poverty alleviation, gender equity and opportunities for the youth)
Weight: 15%

**4) Perceived alignment with national and sectoral policy frameworks** (Extent to which the measure is well-grounded on existing policy frameworks like the NDS1, NAP or sectoral policies and strategies)
Weight: 30%

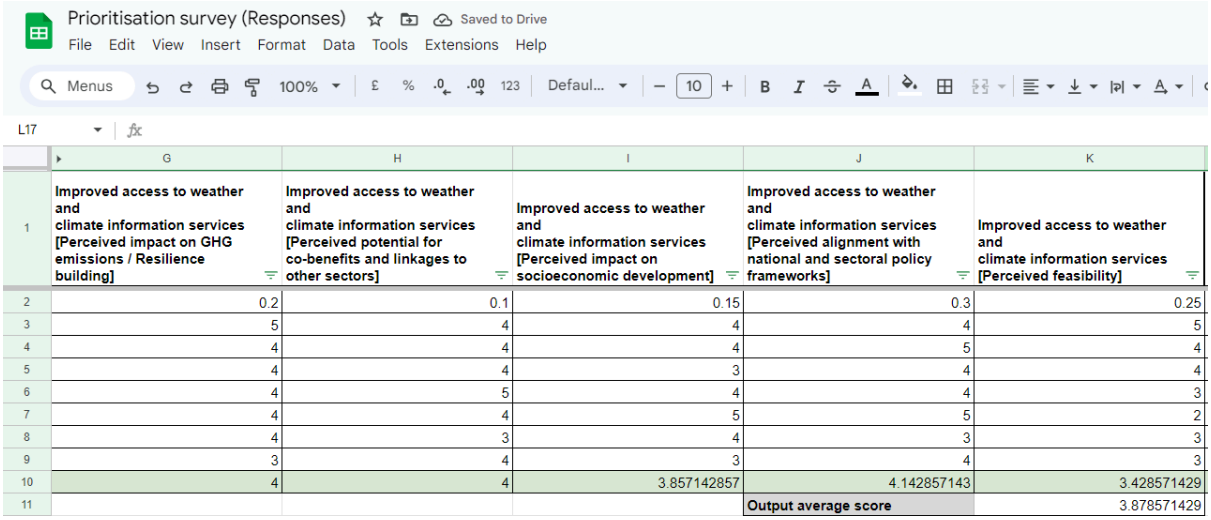
**5) Perceived feasibility** (Accounting for costs of implementation and fund availability, technology and skills requirement and social and political acceptance)
Weight: 25%

The caption below shows the structure of a prioritisation survey question:

**Improved access to weather and climate information services** *

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Perceived impact on GHG emissions / Resilience building | ○ | ○ | ○ | ○ | ○ |
| Perceived potential for co-benefits and linkages to other sectors | ○ | ○ | ○ | ○ | ○ |
| Perceived impact on socioeconomic development | ○ | ○ | ○ | ○ | ○ |
| Perceived alignment with national and sectoral policy frameworks | ○ | ○ | ○ | ○ | ○ |
| Perceived feasibility | ○ | ○ | ○ | ○ | ○ |

The caption below displays a Google sheet linked to the online survey previously shown. Results are updated automatically and inserted formula is able to generate automated results as stakeholders provide their inputs to the survey:




| | G | H | I | J | K |
|---|---|---|---|---|---|
| 1 | Improved access to weather and climate information services [Perceived impact on GHG emissions / Resilience building] | Improved access to weather and climate information services [Perceived potential for co-benefits and linkages to other sectors] | Improved access to weather and climate information services [Perceived impact on socioeconomic development] | Improved access to weather and climate information services [Perceived alignment with national and sectoral policy frameworks] | Improved access to weather and climate information services [Perceived feasibility] |
| 2 | 0.2 | 0.1 | 0.15 | 0.3 | 0.25 |
| 3 | 5 | 4 | 4 | 4 | 5 |
| 4 | 4 | 4 | 4 | 5 | 4 |
| 5 | 4 | 4 | 3 | 4 | 4 |
| 6 | 4 | 5 | 4 | 4 | 3 |
| 7 | 4 | 4 | 5 | 5 | 2 |
| 8 | 4 | 3 | 4 | 3 | 3 |
| 9 | 3 | 4 | 3 | 4 | 3 |
| 10 | 4 | 4 | 3.857142857 | 4.142857143 | 3.428571429 |
| 11 | | | | Output average score | 3.878571429 |

The figure and table below provide a visual representation of the prioritisation results of Genesis' engagement in The Gambia. The web diagram represents a sector level prioritisation of adaptation. The table represents the final selection of quantitative outcomes of the prioritised outputs for adaptation with their aggregated scores.

*Radar graph on the adaptation thematic/ sectoral average scores by weighting criteria*

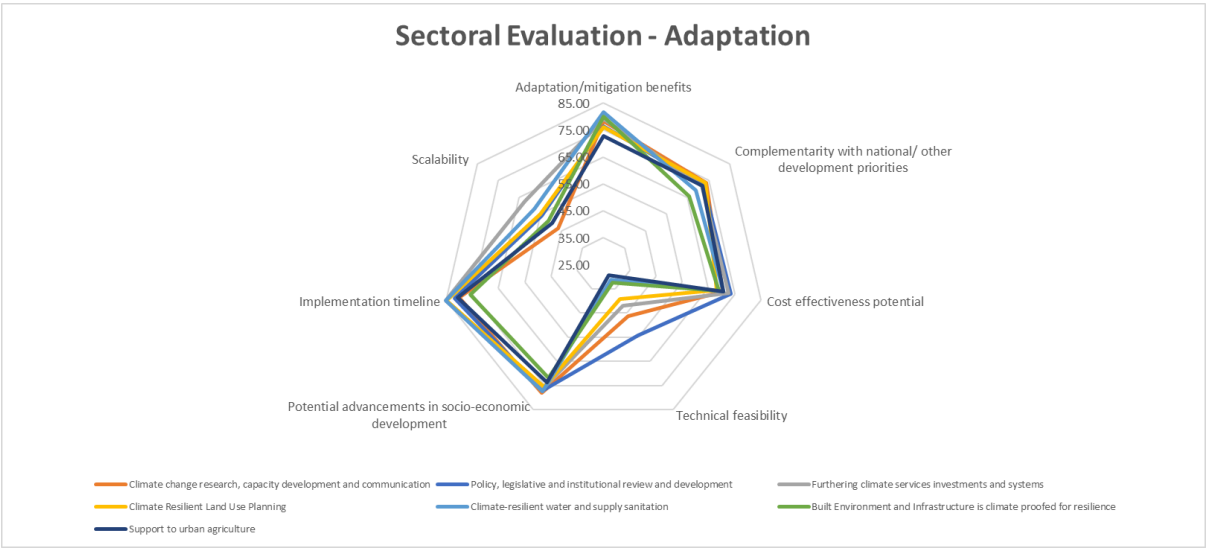



*Table of prioritised outcomes as per the quantitative assessment for Adaptation*

| Sector/ Thematic Component | Outcome | Perception Score |
|---|---|---|
| **Furthering climate services investments and systems** | CCS1: The National Climate Services System of The Gambia is strengthened to support Climate Change Resilience | 71.00 |
| **Policy, legislative and institutional review and development and mobilisation of climate finance** | CCF2: Sustainable and Transparent Climate Change Resource Mobilization Mechanism and Framework developed and implemented | 74.65 |

| Sector/ Thematic Component | Outcome | Perception Score |
|---|---|---|
| | CCF3: National Climate Change Fund and its Local Level Windows capitalised and operational | 73.43 |
| | CCF4: National and Sectoral Climate Change Budget Coding and Tracking System developed and operational | 71.28 |
| | CCF5: Conducive financial and economic environment for Private Sector financing of climate change is established | 71.23 |