



**FINAL EVALUATION OF THE DEEPENING EFFORTS TO ACCELERATE
NDC IMPLEMENTATION (NDC PROJECT)**



FINAL REPORT

DECEMBER, 2022

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List of abbreviations

Abbreviation	Definition
BAU	Business as Usual
DAC	Development Assistance Committee
DDS	District development Strategy
ENR	Environment and Natural Resources
FAO	Food and Agricultural Organization
FONERWA	Fund for Environment and Climate Change
GGCRS	Green Growth and Climate Resilience Strategy
GHG	Green House Gas
IPPU	Industrial Process and Product Use
KII	Key Informant Interview
LDC	Least Developed Country
M&E	Monitoring and Evaluation
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MININFRA	Ministry of Infrastructure
MIS	Management Information System
MoE	Ministry of Environment
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization

NIM	National Implementing Modalities
NST	National Strategy for Transformation
PSTA	Strategic Plan for Agriculture Transformation
RBM&	Results-Based Monitoring and Evaluation
RIB	Rwanda Investigations Bureau
RNP	Rwanda National Police
SPCR	Strategic Programme for Climate Resilience
tCO ₂ e	Tones of Carbon dioxide Equivalent
UNDAP	United Nations Development Assistance Programme
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNSDCF	United Nations Sustainable Development Cooperation Framework
WFP	World Food Programme

Executive summary

*Rwanda submitted its enhanced nationally determined contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2020, reiterating the country's commitment to domestic green growth and global climate action. The Ministry of Environment (MoE) however suffered capacity constraints that hampered the effective coordination of NDC implementation. In this respect, UNDP initiated a project named "Deepening Efforts to Accelerate NDC Implementation", commonly known as the NDC Project. The project mainly aimed at strengthening the capacity MoE to coordinate the implementation of the enhanced NDCs. Three project outputs were stipulated, implemented jointly with MoE and the Ministry of Agriculture and Animal Resources (MINAGRI). The outputs are; **Output 1:** Coordination capacities of NDC sectors enhanced to optimize actions that reduce GHG emissions, reduce vulnerability, enhance adaptive capacity and build climate resilience; **Output 2:** Transparency systems strengthened to track NDC implementation; **Output 3:** Inclusive sectoral transformation (Deep Dive) accelerated. The main objective of this final evaluation of the NDC Project is to assess the level of achievement of the project implementation and document lessons learnt and good practices as well as challenges. A mixed-methods approach was used in the evaluation, combining quantitative and qualitative analysis of data/information from both primary and secondary sources. The summarized main findings are presented as per the five evaluation criteria – relevance, effectiveness, efficiency, sustainability and impact.*

Relevance

The NDC project is quite relevant to Rwanda's country context as it directly contributes to the realization of enhanced NDCs of 2020. The project further resonates well with the country's aspiration of becoming a green economy as stipulated in the Green Growth and Climate Resilience Strategy (GGCRS). There are also synergies with national development priorities for example Priority Areas 6 and 7 of the National Strategy for Transformation that emphasize modernizing agriculture and sustainable management of environment and natural resources, respectively. Additionally, the agriculture-related interventions of the project are in line with Priority Area 2 of the fourth Strategic Plan for Agricultural Transformation (PSTA4), which emphasizes sustainable and resilient production systems for both crop and animal resources. The NDC project is further

well aligned with the United Nations Sustainable Development Cooperation Framework (UNSDCF), particularly Outcome 2 which states that; “By 2024, Rwandan institutions and communities are more equitably, productively, and sustainably managing natural resources and addressing climate change and natural disasters”. Specifically, UNDP pledged to work with other UN agencies to strengthen the environment and natural resources sector by supporting the capacity of the Ministry of Environment, FONERWA, and Rwanda Meteorological Authority between 2018-2024. The NDC Project is in direct alignment with this promise of UNDP, the project’s official funder.

Effectiveness

The project was quite effective at both design and implementation levels and the achievement rate for indicators with quantitative targets was relatively high. Specifically, 10 out of 12 quantitative indicators with explicit targets were either achieved or surpassed. These include; (i) training of 143 sector experts in various topics, exceeding the targeted 100 participants; (ii) production of an inventory report on actions contributing to NDC targets; (iii) integration of 33 NDC, SDG and gender-related indicators in the results-based monitoring and evaluation framework of the environment and natural resources sector, against a target of 30 indicators; (iv) production of a situational analysis report on low-carbon and climate-resilient agriculture; (v) development of a roadmap for the transition towards low-carbon and climate-resilient agriculture; (vi) finalization of a report on investment and financial flows in the agriculture sectors; (vii) development of a resource mobilization strategy for the agriculture sector; (viii) development of three bankable projects against a target of five projects; (ix) piloting of two best projects – hydroponic production of fodder and horticulture and agri-insurance; and (x) integration of NDC priorities in annual plans of 10 sectors, namely; energy, IPPU, waste, agriculture, forestry, land-use, human settlements, health, transport and mining.

One indicators exhibited moderate performance (50-79% of the respective targets), that is, establishment of a system to track climate financial flows. A feasibility study for the financial tracking system (CBT) was completed and capacity building undertaken, but operationalization is pending negotiations between MINECOFIN and IMF including some financial reforms that are yet to be finalized. One indicator on the number of people supported to participate in international

conferences and workshops was not achieved because of global travel restrictions related to the COVID-19 pandemic. Finally, the project considered gender mainstreaming in several ways including working with the Gender Monitoring Office (GMO) to track gender-related interventions across NDC priority sectors and carrying out year-to-year monitoring guided by the gender mainstreaming strategy. Other gender considerations included conducting a gender gap analysis, gender-targeted capacity building in the development of bankable climate-resilient agriculture projects, and supporting best practices of agriculture enterprises owned by women.

Efficiency

Efficiency of the NDC Project and value for money in implementing project activities were ensured by the partner ministries adhering to public finance management and procurement frameworks including public announcement and assessment of tenders for consultancy services as well as leveraging existing MoUs with service providers like hotels for workshop venues. The use of virtual platforms as opposed to physical meetings amidst the COVID-19 pandemic reduced the cost of trainings and consultative workshops while relying on local rather than international experts reduced the cost of reviewing project proposals and consultancy reports. With regards to budget execution performance, annual Combined Delivery Reports (CDRs) from UNDP indicate fairly good performance with an average execution rate of 81% of the allocated budget.

Sustainability

The NDC Project was quite successful in ensuring both environmental and financial sustainability. Environmental sustainability was promoted by piloting best practices in agriculture that were associated with low emission of greenhouse gases – for example hydroponic farming practices – and enhanced adaptation to climate change – for example solar-powered mini-irrigation systems. Financial sustainability was ensured by capacity building which through which the acquired technical skills and knowledge will continue to enhance effective service delivery for the respective beneficiaries. Anchoring the project on key development priorities was an additional sustainability measure, as both MINAGRI and MoE are already considering integrating key project benefits into their sector strategies and mandates. Additionally, the piloted best practices in agriculture were given a foundation for expansion to become profitable business enterprises that will likely continue beyond the NDC Project's life.

Impact

The project generated multi-dimensional impacts at the institutional, individual and community levels. At the institutional level, significant improvement has been registered regarding the coordination of NDC implementation across sectors. By upgrading the results-based monitoring and evaluation system of the environment and natural resources sector, including incorporation of NDC, SDG and gender-related indicators, the project has so far improved reporting and information sharing among relevant stakeholders. MoE and MINAGRI have also benefitted from increased capacity for resource mobilization as well as acquisition of video conferencing facilities that quickened work especially during the COVID-19 pandemic. At the individual levels, the acquired skills and exposure through trainings and consultative workshops enhanced the knowledge of experts regarding climate change, NDCs and integration of NDC priorities in development planning. For the beneficiaries of piloted best practices, impacts include expanded production of fodder and horticultural products, increased income and cost saving for example by switching from generator-powered to solar-powered irrigation systems. Community-level impacts include permanent and temporary employment created by the supported best practices, increased availability of cheap fodder to livestock farmers, among others.

1. INTRODUCTION

With the increasingly worrisome trend of global climate change, the Paris Agreement was established in which global leaders reiterated their commitment to reduce global warming to well below two degrees Celsius and pursue efforts to further reduce surface temperature rise to 1.5 degrees Celsius by 2030 relative to pre-industrial levels. In order to strengthen the implementation of these commitments, the United Nations Framework Convention on Climate Change (UNFCCC) encourages Parties to submit their Nationally Determined Contributions (NDCs) indicating goals for the reduction of greenhouse gas (GHG) emissions across sectors within national boundaries. Additionally, the National Adaptation Plans (NAPs) were institutionalized at the Cancun climate conference in 2010, meant to help countries plan for climate change adaptation and its integration into national development policies. In other words, the NAPs are generally meant to elaborate the actions to be taken in order to implement the broader goals specified in the NDCs. As of September 2022, 15 countries categorized as least developed countries (LDCs) had submitted their NAPs to UNFCCC.

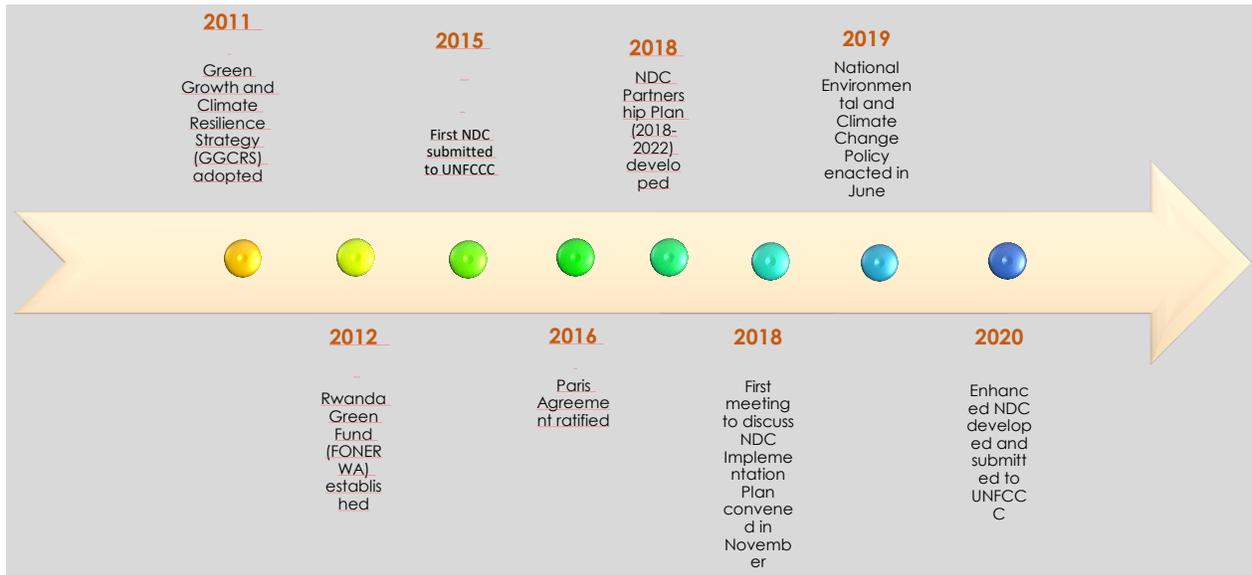
Rwanda has proactively established policy initiatives to protect and preserve the environment and natural resources as well as reverse the daunting trend of climate change. These include the integration of environmental protection and climate change as one of the seven cross-cutting issues in Rwanda's Vision 2020; Priority Area 7 of the National Strategy for Transformation (NST1) specifically dedicated to sustainable management of environment and natural resources and fight against climate change; and prioritization of smart and green cities for sustainable growth in Vision 2050. The country's commitment to climate action is further reflected in the embracement of global climate movements and policies as well as accompanying local legal and regulatory frameworks meant to facilitate the pursuit for green growth and sustainable development. The Green Growth and Climate Resilience Strategy (GGCRS) was adopted in 2011, followed by numerous developments as indicated in Figure 1. With the establishment of Rwanda Green Fund (FONERWA) in 2012 to ease financing challenges for mitigation and adaptation actions across sectors, the country set precedence that was later cemented by the elaboration of the first nationally determined contribution (NDC) in 2015. Rwanda's commitment to global climate action was further reflected in the ratification of the Paris Agreement in 2016, followed by the development of the NDC Partnership Plan in 2018 as a mechanism to fast-track the implementation of Paris

Agreement recommendations and requirements over the period 2018-2020. In order to operationalize the plan, the first meeting to discuss its implementation was convened in November 2018. With these developments in place, the apparent need for a stand-alone climate change policy was clear, and this was enacted in 2019.

In 2020, Rwanda developed the enhanced NDC and submitted it to the United Nations framework Convention on Climate Change (UNFCCC) with clear commitment (actions and targets) to reduce greenhouse gas (GHG) emissions and keep global warming to well below two degrees Celsius by 2030 relative to pre-industrial levels. The enhanced NDC sets targets to reduce emissions in Rwanda by 38% by 2030 against business-as-usual (BAU) levels. The emissions reduction targets were set mainly targeting the three major emitting sectors that contributed the most to the baseline GHG inventory estimated at 5.3 million tons of carbon dioxide equivalent (tCO_{2e}) in 2015. These are agriculture which contributed 2.9 million tCO_{2e} or approximately 55% of the total inventory excluding forestry; energy whose emissions were estimated to be 1.68 tCO_{2e} (31%) and waste that emitted 0.64 million tCO_{2e} (12%) in the same year ([Government of Rwanda, 2020](#)). The remaining emissions were from industrial processes and product use (IPPU) which emitted 0.08 million tCO_{2e}, representing approximately two percent of the inventory mainly from calcification of carbon dioxide from clinker production.

The revised NDC commits to reversing the anticipated doubling of emissions from 5.3 million in 2015 to 12.1 million tCO_{2e} in 2030, indicating a total reduction of 4.6 million tCO_{2e} (38%) against BAU levels. This includes an unconditional contribution of 16% relative to BAU (about 1.9 million tCO_{2e}) contingent upon domestic policies and measures as well as a conditional contribution of 22% (2.7 million tCO_{2e}) against BAU conditional upon international support and funding. Mitigation measures identified within the agriculture sector are anticipated to account for 49% of the total emission reduction potential, followed by energy (34% of total), waste (14%), and IPPU (3%). Priority sectors for mitigation include energy, IPPU, waste and agriculture while adaptation sectors are waste, agriculture, land-use, forestry, human settlement, health, transport, mining and cross-cutting issues including disaster risk monitoring, early warning systems, capacity building and access to finance. Twenty-four NDC adaptation interventions were highlighted, cutting across the selected adaptation priority sectors.

Figure 1: A decade of commitment to climate action in Rwanda: 2011-2020



Cognizant of the financial and technical constraints to effective climate action in developing countries, UNDP extended its technical and financial support to the Government of Rwanda to accelerate the implementation of the country’s NDC through the “Deepening Efforts to Accelerate NDC Implementation” – NDC Project. The project was implemented in Rwanda between 2020 and 2022 with an overarching goal of strengthening the capacity of the Ministry of Environment (MoE) to coordinate the implementation of the country’s enhanced nationally determined contributions (NDCs). This final evaluation of the NDC Project is meant to assess the relevance, effectiveness, efficiency, sustainability and impact aspects of the project. The audiences for the results of the evaluation include UNDP – the official funder of the NDC Project – the three partner/implementing institutions – MoE, Ministry of Agriculture and Animals Resources (MINAGRI) and the Ministry of Finance and Economic Planning (MINECOFIN). These could use the evaluation findings to not only gauge the success of the project but also make improvements to the design and implementation of future phases of the project whenever deemed necessary. Other beneficiaries include other government institutions which could learn from the ongoing collaborative efforts to enhance NDC implementation and learn lessons for various sectors; private sector players who could learn about their potential role in financing and implementing climate-resilient projects as business ventures; civil society organizations who could consider integrating NDC priorities in their programming, among other potential audiences. The

rest of the final evaluation report is structured as follows. The next two subsections present the background and elaborate Rwanda's commitment to climate action over the past decade. The NDC Project is detailed in Section 2, followed by objectives, scope and criteria of the evaluation in Section 3. The evaluation methodology and data analysis are elaborated in sections 4 and 5, respectively. Evaluation findings are discussed in Section 6 while Section 7 provides enabling factors, challenges and lessons learnt. The final section concludes the evaluation report and provides recommendations to improve the design and implementation of future project phases.

2. DESCRIPTION OF THE PROJECT INTERVENTIONS

The NDC project implemented by UNDP in partnership with the Ministry of Environment (MoE), the Ministry of Agriculture and Animal Resources (MINAGRI) and the Ministry of Finance and Economic Planning (MINECOFIN) was meant to address capacity issues relating to the implementation of Rwanda's NDC. The project was motivated principally by the capacity gaps identified during a 2017 assessment report on NDC implementation in the country. The identified gaps included, among others, insufficient coordination between institutions, low awareness among the private sector, inadequacy of data for project preparation and limited access to finance (UNDP, 2018). Additionally, there were critical constraints to resource mobilization and development of bankable climate-resilient projects. Reporting was also less effective, as NDC indicators were not adequately captured in the existing management information system (MIS) of the environment and natural resources sector. The NDC project was hence designed in response to the identified challenges, with an overarching goal of strengthening capacity of MoE to effectively coordinate NDC implementation. Three strategic outputs were anticipated as briefly described below.

Output 1: Coordination capacities of NDC sectors enhanced to optimize actions that reduce GHG emissions, reduce vulnerability, enhance adaptive capacity and build climate resilience. This output was specifically meant to strengthen the NDC coordination capacity of MoE and other NDC sectors for more effective implementation of NDCs. This was supposed to be done mainly through training of selected staff from the responsible institutions who were in charge of various functions related to NDC implementation. In addition, the project planned to support NDC sectors to integrate NDC priorities into their annual plans. The main responsible partner institution for this output was the Ministry of Environment (MoE).

Output 2: Transparency systems strengthened to track NDC implementation. Key planned interventions under this output included producing reports on actions that contribute to NDCs; integrating NDC, SDG and gender-related indicators into the results-based monitoring and evaluation system of the environment and natural resources sector; establishment of a system to track climate finance flows at MINECOFIN; and facilitating knowledge exchange by supporting sector experts to participate in international conferences and meetings. Implementing interventions under this output was a joint responsibility of the Ministry of Environment (MoE) and the Ministry of Finance and Economic Planning (MINECOFIN).

Output 3: Inclusive sectoral transformation (Deep Dive) accelerated. This output was primarily devoted to resource mobilization for climate resilient actions especially in the agriculture sector, with the main implementing partner being the Ministry of Agriculture and Animal Resources (MINAGRI). Specific planned interventions included conducting a situational analysis of low-carbon, climate-resilient actions in the agriculture sector; developing a roadmap for the transition to low-carbon, climate-resilient agriculture; conducting an analysis of investment financial flows in the agriculture sector; developing a resource mobilization strategy and bankable NDC projects; piloting best practices to mitigate investment risks in agriculture; and taking stock of gender-sensitive climate-resilient actions. Achieving this output required combined efforts of MoE, MINECOFIN and MINAGRI.

Beneficiaries at the individual level included experts from environment and natural resources (ENR), energy, agriculture and transport sectors who were trained in various topics related to climate change, NDCs, resilience, resource mobilization, gender mainstreaming, integration of NDC priorities in sector annual plans, proposal writing, among others. The selection of beneficiaries was based on the roles and responsibilities within the respective institutions related to the specific training topic. Project beneficiaries also included farmers, farmer cooperatives and companies which received financial and technical support to pilot or scale up low-carbon farming practices like hydroponic production of fodder and horticulture. These were selected competitively through open calls, but targeting mostly enterprises owned or led by women and youth.

One of the key sectors targeted by the NDC project is agriculture, which is indicative of the project's relevance to the NDC implementation. This is because the sector was identified among the greatest emitters in 2015 and is hence among the priority sectors for both mitigation and

adaptation as stipulated in the country’s NDC document. The NDC Project has strong synergies with Agenda 2030, particularly Goal 13 – Climate Action. The project is further synergetic to the United Nations Sustainable Development Cooperation Framework (UNSDCF), particularly Outcome 2 which states that; “By 2024, Rwandan institutions and communities are more equitably, productively, and sustainably managing natural resources and addressing climate change and natural disasters”. The detailed discussion of linkage between the NDC Project and UNSDCF is provided in subsection 6.1.2.

In terms of human and financial resources, the NDC Project had a total budget of 1,620,000 United States Dollars, and was implemented jointly by focal points at UNDP, MINAGRI, MoE, MINECOFIN and with direct or indirect contribution from sector experts from various public, private and civil society institutions. The target group for capacity building interventions were those directly involved in coordinating the implementation of NDCs in general – at MoE – and NDC implementation in agriculture – at MINAGRI – as well as sector experts from other organizations that work closely with these partner institutions. The summarized results framework is presented in Table 1 highlighting the project’s expected outputs, indicators, baseline values and targets as well as data sources for tracking performance indicators.

Table 1: Summarized results framework: outputs, indicators, baseline and targets

Indicator	Data source	Baseline (2019)	Targets by:		
			Year 1 (2020)	Year 2 (2021)	Year 3 (2022)
Output 1: Coordination capacities of NDC sectors enhanced to optimize actions that reduce GHG emissions, reduce vulnerability, enhance adaptive capacity and build climate resilience					
1.1 Number of staff trained to strengthen the capacity of the MoE and other NDC sectors	Training reports/ attendance lists	0	45 staff trained across NDC sectors	70 staff trained across NDC sectors	100 staff trained across NDC sectors
1.2 Number of sectors which integrated NDC priorities in their annual plans	Annual reports/ annual assessment reports	0	3 sectors	6 sectors	10 sectors
Output 2: Transparency systems strengthened to track NDC implementation					
2.1 Number of reports summarizing the actions contributing to NDC targets	Database	0		1 inventory report	1 inventory report

2.2 Number of NDC, SDG and gender performance indicators integrated in the RBM&E system	RBM&E system, NDC, MRV, SDGs	1		10 NDC indicators 10 SDG indicators 10 gender indicators	
2.3 Number of tracking system for climate finance flows established under MINECOFIN	Budget statements documents, work plans and annual budgets	0	0	1	1
2.4 Number of participants supported to participate in international conferences/meetings.	International conference s/meetings	0	2 participant s	2 participant s	2 participant s
Output 3 - Inclusive sectoral transformation (Deep Dive) accelerated					
Sub-output 3.1 Inclusive sectoral transformation roadmap defined and NDC finance strategy elaborated					
3.1.1. Number of situational analyses on low carbon, climate resilient actions in the agriculture sector	Databases	0	0	1	0
3.1.2 Number of roadmaps developed for the transition to low carbon and climate resilient agriculture	Studies/ Analyses	0	0	1 roadmap	0
3.1.3 Number of investment and financial flows analyses in agriculture sector	Reports and action plans	0	1	0	1
3.1.4 Number of Resource mobilization strategies developed.	Policies, strategies, action plans and reports	0	1 resource mobilization strategy		1 strategy (cumulative)
3.1.5 Number of bankable NDC projects developed and linked to funding sources	NDC plan and sector documents	0	2	5	5
Sub-Output 3.2 Enabling environment established for Private and public sector investment mobilization					
3.2.2 Number of best practices piloted to mitigate investment risks	Policy documents, strategies, work plans, reports, data collection in field	0	1 targeted study completed	2 best practices piloted completed	4 best practices piloted completed

3.2.3 Number of climate resilient actions that are gender sensitive.	Policy documents, strategies, reports, gender mainstreaming plans, policy documents, strategies, reports, gender mainstreaming plans	0	No target	No target	No target
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3. EVALUATION OBJECTIVES, SCOPE AND CRITERIA

This section presents the rationale and emphasis of the final evaluation, including its objectives, scope, evaluation criteria and questions.

3.1. Evaluation objectives

The main objective of the UNDP-commissioned evaluation of the NDC project is to assess the level of achievement of the project implementation and document lessons learnt and good practices as well as challenges. Specific objectives of the assignment are to:

- ❖ Assess the achievements of the programme against its stated outputs and its contribution to the achievement of UNDP Strategic Plan Results;
- ❖ Assess the relevance, efficiency, effectiveness, sustainability, and impact of the interventions;
- ❖ Assess the project’s processes, including budgetary efficiency;
- ❖ Assess the extent to which planned activities and outputs have been achieved;
- ❖ Identify the main achievements and impacts of the project’s activities;
- ❖ Identify the underlying causes and issues of non-achievement of some targets;
- ❖ Document lessons learnt;
- ❖ Inform the design of the next project phase.

3.2. Evaluation scope

In order to achieve the evaluation objectives, the assignment covered the following scope.

- ❖ Assessing the clarity of the project design and appropriateness of allocated time;

- ❖ Evaluating progress towards achievement of overall project objectives;
- ❖ Evaluating project performance in relation to the indicators, assumptions and risks specified in the logical framework matrix and the Project Document;
- ❖ Assessing the scope, quality and significance of the project outputs in relation to expected results;
- ❖ Identifying any programmatic and financial variance and/or adjustments made during the implementation of the project and an assessment of their conformity with decisions of the PSC and their appropriateness in terms of the overall objectives of the project;
- ❖ Evaluating the project's contribution to the achievements of NDC Project outcome and outputs;
- ❖ Identifying and, to the extent possible, quantify any additional outputs and outcomes beyond those specified in the Project Document;
- ❖ Evaluating the project's coordination, management, administration and M&E framework;
- ❖ Conducting a prognosis of the degree to which the overall objectives and expected outcomes of the project are likely to be met;
- ❖ Assessing progress towards ensuring the sustainability and replication of project activities;
- ❖ Assessing the extent to which the design, implementation and results of the project have incorporated a gender equality perspective and human rights-based approach
- ❖ Assessing the extent to which the design, implementation and results of the programme have incorporated the environmental sustainability concerns and make recommendations;
- ❖ Documenting lessons learned during project implementation;
- ❖ Evaluating the project exit strategy in terms of quality and clarity.

Tables 2 provides a detailed list of evaluation components along with respective means of verification and data or information sources for each evaluation element.

Table 2: Evaluation elements and means of execution

S/N	Evaluation element	Means of execution
1	Assess whether the project design is clear, logical and commensurate with the time and resources available	Project document including results framework and budget
2	An evaluation of the project's progress towards achievement of its overall objectives;	Benchmarking/comparison of annual and quarterly progress reports with the NDC project objectives
3	An evaluation of project performance in relation to the indicators, assumptions and risks specified in the logical framework matrix and the Project Document	Quarterly and annual progress reports in comparison with project's results framework
4	An assessment of the scope, quality and significance of the project outputs produced during the implementation period in relation to expected results	NDC project document, periodic reports and stakeholder consultations
5	Identification of any programmatic and financial variance and/or adjustments made during the implementation of the project and an assessment of their conformity with decisions of the PSC and their appropriateness in terms of the overall objectives of the project;	<ul style="list-style-type: none"> ❖ Programmatic variance/adjustments identified through comparison of project milestones with progress reported in quarterly and annual reports ❖ Financial variance identified through comparison of budget allocations and financial reports from UNDP, MoE and MINAGRI. ❖ Justification of programmatic and financial variance through stakeholder consultations (KIIs)
6	An evaluation of the project's contribution to the achievements of NDC Project outcome and outputs	Benchmarking project results framework and periodic reports, backed by stakeholder insights.
7	Identification and, to the extent possible, quantification of any additional outputs and outcomes beyond those specified in the Project Document;	Review of periodic reports to identify outcomes unmentioned the project document with additional insights gathered through stakeholder consultations
8	An evaluation of project coordination, management and administration	<ul style="list-style-type: none"> ❖ Review of coordination mechanisms in NDC project document and periodic reports ❖ Analysis of budget and financial reports ❖ Review of minutes of PSC meetings
9	A prognosis of the degree to which the overall objectives and expected outcomes of the project are likely to be met;	Assess closeness planned objectives and outcomes stipulated in the NDC project document and progress reported in quarterly and annual reports

10	Progress towards sustainability and replication of project activities	Examination of sustainability measures reported in periodic reports, back by stakeholder consultations
11	Assess the extent to which the design, implementation and results of the project have incorporated a gender equality perspective and human rights-based approach	Check for gender-quality perspectives and human rights approach considerations in the project document and periodic reports plus stakeholder consultations
12	Assess of the extent to which the design, implementation and results of the programme have incorporated the environmental sustainability concerns and make recommendation accordingly	<ul style="list-style-type: none"> ❖ Check for environmental sustainability considerations in the project document and periodic reports ❖ Stakeholder consultations ❖ Recommendations based on best practices (such as UNEG standards)
13	Lessons learned during project implementation	Quarterly and annual progress reports backed by stakeholder consultations
14	Evaluate the project exit strategy in terms of quality and clarity	NDC project document, periodic reports and stakeholder consultations

3.3. Evaluation criteria

The evaluation followed the Development Assistance Committee (DAC) criteria with five major components, namely; relevance, effectiveness, efficiency, sustainability and impact. These are elaborated in Table 3, along with the methods of verification for each criterion during the evaluation exercise.

Table 3: Evaluation criteria and planned means of verification

Criterion	Description	Means of verification
Relevance	Extent to which the project and its interventions are aligned with the interests of the intended beneficiaries and national development priorities	Desk review; benchmarking the NDC project document with national development priorities (e.g. updated NDC of 2020, etc. Field visits of random spot checks on selected sites
Effectiveness	Extent to which the project's planned activities were achieved and how they contribute towards the realization of the overall project goal.	Desk review of project reports and quantitative analysis of secondary M&E data to ascertain deviation between actual and planned achievements on each indicator; reasons for any deviation to be sought through stakeholder consultations (KIIs).

Efficiency	Ascertaining value for money and the extent to which resources were utilized both as per original plan as well as in the most reasonable and appropriate manner compared to alternatives.	Desk review of project budget performance and financial reports; benchmarking with budgetary allocations for each respective intervention; reasons for any deviation to be sought through stakeholder consultations (KIIs and FGDs).
Sustainability	<ul style="list-style-type: none"> ❖ Environmental sustainability: Extent to which interventions considered environmental protection ❖ Financial sustainability: Extent to which interventions could be replicated and continued when project funding ceases. 	Review of project document to ascertain adherence to environmental considerations including environmental impact assessments where necessary. Financial sustainability was ascertained through assessing the nature of interventions to ascertain how likely they are to be self-sustaining. KIIs and FGDs provided additional insights. Field spot check were further used to assess likely environmental and financial sustainability of interventions
Impact	Changes in desired outcomes affected either positively or negatively by the project and its interventions, including indirect or unintended effects.	Interviews with UNDP, MoE, MINAGRI, MINECOFIN and other stakeholders to ascertain the extent to which realized changes in NDC implementation and coordination capacity

4. EVALUATION APPROACH AND METHODS

The evaluation was conducted using a mixed methods approach and a combination of desk-based and field-based activities. These are described in details in subsequent subsections that detail the sources of information and data, data collection procedures and tool, evaluation performance standards as per UNEG guidelines, stakeholder engagement and contribution to the evaluation, ethical considerations and brief background about the evaluators.

4.1. Data and information sources

The final evaluation of the NDC Project relied on several sources of both qualitative and quantitative data and information from both primary and secondary sources. The data and information were gathered through a combination of both desk-based and field-based exercises Overall, information was obtained from desk review of relevant literature, secondary data on the project's milestones and budgets, primary data collection through key informant interviews and

random spot checks on piloted best practices. The subsequent subsections provide a detailed discussion of each component.

4.1.1. Desk review of relevant literature

The first approach to the assignment entailed a desk review of literature deemed relevant to the assignment in order to comprehensively contextualize the assignment. The desk review exercise solicited information including but not limited to the overall goal of the project, its rationale, objectives, outcomes, outputs and targets. The desk review exercise was further meant to elicit the modalities of project implementation to assess their appropriateness while project milestones were ascertained and compared to planned indicators and targets. The desk review additionally looked out for plans to ensure sustainability (both environmental and financial) and integration of the gender dimension in planned interventions. The stakeholder engagement and M&E frameworks were also be comprehensively assessed during the desk review phase. Several documents were reviewed to assess the extent to which the NDC project and its associated interventions are aligned with the country’s sustainable development agenda. Table 4 provides an indicative list of the documents that were reviewed, along with the information gathered from the respective documents. The findings from the desk review were crucial in informing the data collection exercise that followed the desk review phase.

Table 4: List of documents reviewed during the desk review exercise

S/N	Document title	Gathered information
1	NDC Project Document	Project context, rationale, objectives, milestones, etc.
2	Rwanda’s updated NDC of 2020	Ascertaining alignment of NDC project to Rwanda’s climate change mitigation and adaptation agenda.
3	National Strategy for Transformation (NST1, 2017-2024) and the mid-term review conducted by IPAR Rwanda (2021)	Medium-term policy commitments, strategies and targets related to environmental projection and climate change mitigation and adaptation as well as progress made by 2021
4	Rwanda Voluntary National Review of 2019	Environment-related policy achievements and plans and how these are complemented by the NDC project
5	NDC project and its M&E framework	Project indicators and targets and means of tracking their implementation against which progress were benchmarked.

6	<ul style="list-style-type: none"> ❖ Monitoring reports (e.g. minutes of Steering Committee meetings), Project Annual Implementation Report, quarterly progress reports. ❖ Other knowledge products e.g. management and action plans, publications and other reports 	Progress achieved against planned milestones for the project to ascertain effectiveness and assess deviation from original plans (whose reasons would be sought through interviews)
7	Any other documents as identified during the inception phase together with the NDC project team and/or stakeholders.	Other information attached or unattached but relevant to the project to understand enablers and constraints to NDC implementation, including benchmarking with regional and international best practices in climate change mitigation and adaptation.

Additionally, as part of the desk review exercise, a stakeholder mapping was conducted to identify the key stakeholders that are instrumental and informative with regards to climate change mitigation and adaptation as well as NDC implementation. This stakeholder mapping exercise helped in identifying potential respondents for interviews during the primary data collection phase.

4.1.2. Primary data collection

Based on the findings of the document review and secondary quantitative data analysis, additional information gaps were bridged through key informant interviews targeted to different stakeholders in the public, private and non-profit sectors directly involved in the implementation of NDCs in particular and environmental protection in general. The information collected from this exercise helped to concretize the findings of the desk-based activities and seek stakeholders’ insights on the opportunities, challenges and recommendations to promote the NDC implementation and enhance climate change mitigation and adaptation in Rwanda. As earlier described, the stakeholder consultations further elicited information on the environmental and financial sustainability of the project interventions as well as impact. Table 5 provides a list of stakeholder categories considered for consultation during the primary data collection phase. In addition to the key informant interviews with stakeholders, field visits or spot checks on randomly selected project sites were carried out to physically verify the interventions and capture impact stories from the beneficiaries.

Table 5: Sampling and approaches for primary data collection through KIIs

S/N	Stakeholder category	Discussion points (summary)	Data collection method/tools	Sampling strategy
1	UNDP Head of Sustainable Growth Unit; NDC project focal point.	<ul style="list-style-type: none"> ❖ Project context and background ❖ Progress made in achieving project objectives, outcomes and outputs ❖ Incorporation of gender equality perspectives and human rights-based approach in the project design and implementation ❖ Reasons for any deviation between planned and actual achievements ❖ Reasons for any deviation between budgetary allocations and actual spending per activity/intervention ❖ Partnership and stakeholder coordination mechanism ❖ Enabling and constraining factors to the realization of objectives, outcomes and targets of the project ❖ Any unmentioned effects of the project (both positive and negative) ❖ Lessons learnt and way forward ❖ Challenges and opportunities for NDC implementation in Rwanda. ❖ Programming priorities for future phases ❖ Other questions as per evaluation matrix 	Key informant interviews using semi-structured questionnaires	Purposive sampling based on role and knowledge, specifically targeting the Head of Sustainable Growth Unit and NDC focal point
2	Government partners MoE, MINECOFIN and MINAGRI, targeting head of SPIU, Programme Manager, Technical Assistant, and Administrative Assistant	<ul style="list-style-type: none"> ❖ Strategies in place to accelerate the implementation of NDCs. ❖ Funding mechanisms and sources for various interventions related to NDC implementation. ❖ NDC project alignment with development plans and NDC of Rwanda ❖ Capacity gaps that hindered NDC implementation prior to the project. ❖ Incorporation of gender equality perspectives and human rights-based approach in the project design and implementation ❖ Changes in NDC coordination and implementation capacity at individual and organizational levels attributable to the NDC Project ❖ Existing measures within the organization to sustain project benefits 	Key informant interviews using semi-structured questionnaires	Purposive sampling based on official's knowledge, experience and duties within the respective institution. The principle target was the head of SPIU, Programme Manager, Technical Assistant, and Administrative Assistant

		<ul style="list-style-type: none"> ❖ Progress made in realizing project objectives, outcomes and outputs ❖ Justification for any programmatical and financial deviations ❖ Quality of stakeholder coordination in NDC implementation ❖ Strengths and weaknesses of the project's M&E framework ❖ Recommendations to improve the implementation of NDCs ❖ Suggestions for augmenting the design and implementation of the next phase of the NDC project. ❖ Other questions as per evaluation matrix 		
3	<p><u>Private individuals, cooperatives and companies</u></p> <p>Beneficiaries of best practices in hydroponic fodder and horticultural production</p>	<ul style="list-style-type: none"> ❖ Challenges faced in business expansion prior to technical and financial support ❖ Investments made directly from the acquired funding ❖ Impact realized so far in terms of production expansion, employment creation, income generation, cost saving, etc. 	Field observation techniques combined with key informant interviews with representatives of respective beneficiary enterprises.	Snowball sampling; best practices were identified both from desk review and per recommendations by focal persons from MINAGRI.

In terms of data collection procedures and tools, semi-structured questionnaires were administered to purposively sampled officials from various institutions including UNDP, MINAGRI, MoE and MINECOFIN. The interviews targeted mainly those directly involved in the management and implementation of the NDC Project, including focal persons in charge of various interventions. The data collection happened after desk review in order to fill up any information gaps that could not be obtained from the existing documents. The primary data collection was a two-step procedure entailing first sending questionnaires to the respondent to arrange prior information, followed by key informant interviews to make further clarifications on the submitted questionnaire responses.

4.1.3. Evaluation matrix

Table 6 provides a simple evaluation matrix summarizing the evaluation criteria, questions, data sources, data collection methods and tools, indicators and methods of data collection.

Table 6: Simple evaluation matrix and information gathering methods

Evaluation criteria	Evaluation questions	Data sources	Data collection methods	Indicators /success standards	Data analysis methods
Relevance	<ol style="list-style-type: none"> Does the project suit country context and align with national development strategies? Who are the beneficiaries and how were they selected? Does the project align with the priorities of the target group and donors? Are the project activities consistent with the overall goal, objectives and intended impacts or effects? 	<p>NDC Project Document; national policies e.g. GGCRS, NST1, etc.; interviews with UNDP, MoE, MINAGRI, MINECOFIN and other stakeholders</p>	<p>Desk review of NDP Project Document and national policies; key informant interviews (KIIs) using semi-structured questionnaires</p>	<p>Targets set considering prevailing baselines and context; priority sectors selected to reflect those of NDC and development plans (NST1, etc.)</p>	<p>Triangulation of information from reviewed documents; transcription and thematic analysis of qualitative responses from KIIs</p>
Effectiveness	<ol style="list-style-type: none"> To what extent were project objectives and outputs achieved? What were the enabling and constraining factors to the achievement of objectives? What progress has been made in realizing planned outcomes? Where differences exist between planned and realized outputs, what was the justification? Were gender mainstreaming perspectives and human rights approach appropriately incorporated in the project design and implementation? Was capacity building delivered by qualified trainers and yield intended results? How did UNDP support the achievement of outcomes and outputs? 	<p>NDC Project Document; comparison of progress reports and results framework; M&E data; interviews with beneficiaries and focal points in UNDP, MoE and MINAGRI plus additional KIIs with other relevant organizations</p>	<p>Desk review of project document, quarterly and annual reports from UNDP, MoE and MINAGRI; key informant interviews using semi-structured questionnaires administered to purposively sampled respondents in respective institutions; spot checks/field visits to selected project sites in some intervention districts/sectors</p>	<p>Percentage of outcomes, outputs and targets achieved; progress made as a percentage of target</p>	<p>Triangulation of findings from desk review; transcription and thematic analysis of KII findings; score card rating approach (e.g. achieved (status \geq target), satisfactory (status $>80\%$ of target), moderate performance (status between $50-80\%$ of target) and poor (performance on an indicator being below 50% of its respective target)</p>

	8. How effective was UNDP's partnership and coordination mechanism?				
Efficiency	<ol style="list-style-type: none"> 1. Were activities cost-effective and completed on time? 2. Were project activities implemented in the most efficient manner compared to alternatives? 3. Where there was deviation between planned and actual budgets, what was the justification? 4. Are there management challenges to efficient implementation? 	NDC Project Document and budget allocations per activity; financial reports from UNDP, MoE and MINAGRI	Desk review of programmatic and financial reports; budget analysis; KIIs with UNDP, MoE, MINAGRI and MINECOFIN	Strict adherence to budget allocation; closeness between allocated and executed budgets per activity	Budget analysis to identify financial deviation as a percentage of planned allocations; triangulation of information from partner financial reports
Sustainability	<ol style="list-style-type: none"> 1. How was environmental sustainability incorporated in the project design and implementation? 2. Are the project benefits likely to continue after donor funding ceases? 3. What were the enabling and constraining factors to the realization of sustainability? 4. Does the project have a clear exit strategy? 	NDC Project Document; quarterly and annual reports; stakeholder consultations and field spot checks.	Checking sustainability plan in NDC Project Document and comparing with progress reports; KIIs with UNDP, MoE, MINAGRI, MINECOFIN and other stakeholders; spot checks/field visits to selected project sites in some intervention districts/sectors	Measures in place so far to ensure continuation and replication of project benefits	Triangulation of information from the NDC Project Document and progress reports; thematic analysis of qualitative data from KIIs
Impact	<ol style="list-style-type: none"> 1. How did the project contribute to the achievement of outputs and outcomes? 2. How many people have so far been affected (positively and/or negatively)? 3. To what extent is the project likely to create long-term social, economic, technical and environmental changes for the beneficiary 	Quarterly and annual progress reports from UNDP and partners; stakeholder consultations; spot checks or field visits to a cross-section of project sites in selected districts/sectors	Desk review of progress reports; key informant interviews using semi-structured questionnaires administered to focal points in UNDP, MoE, MINAGRI, MINECOFIN and other relevant stakeholders	Improvement in NDC coordination and implementation capacity of partner organizations; number of people reporting enhanced coordination and implementation capacity	Triangulation of information from progress reports and NDC Project Document; transcription and thematic analysis of responses from KIIs

	individual, communities and institutions? 4. What overall difference has the project made in terms of NDC coordination and implementation capacity?				
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4.2. Evaluation performance standards including ethical considerations

The final evaluation of the NDC Project followed the performance standards stipulated in the evaluation guidelines of the United Nations Evaluation Group (UNEG). The key applicable standard is Standard 3 concerning evaluation competencies, particularly the two sub-components on technical competency and ethics. Table 7 summarizes the two sub-components and how these were applied to ensure an effective final evaluation for the NDC Project.

Table 7: Key evaluation performance standards as per UNEG guidelines

Standard indicator	Sub-component	Application to NDC Project evaluation
Standard 3: Competencies		
<u>3.1: Technical competency</u> Individuals engaged in designing, conducting and managing evaluation activities should possess the core competencies required for their role in the evaluation process.	Technical skills, competency and experience to deliver an effective evaluation	The evaluation was led by Ggombe Kasim Munyegera (PhD) who has a PhD in Development Economics and over 10 years of experience in research, policy analysis and project evaluation. He is also knowledgeable of UN processes, having served as a consultant for UN agencies like UNDP, UNECA, ILO, UNCDF and UNU-WIDER. He has also served government institutions and international organizations like GIZ, Ecorys, Japan Weather Association (JWA), International Growth Center (IGC), Global Bridge Network (GBN), among others. He has knowledge of climate change, NDCs and Rwanda country context.

<p><u>3.2: Ethics:</u></p> <p>All those engaged in designing, conducting and managing evaluations should conform to agreed ethical standards in order to ensure overall credibility and the responsible use of power and resources</p>	<p><u>Evaluation processes and products</u></p> <p>Ensuring accuracy, completeness and reliability; inclusion and non-discrimination; transparency; and fair and balanced reporting that acknowledges different perspectives.</p>	<p>Various measures were put in place to ensure accurate reporting within the evaluation. This includes cross-checking information in documents with KIIs and double-checking unclear statistics with relevant focal persons for clarification. While collecting information from beneficiaries, no particular gender, age and other social categories were undermined or discriminated against.</p>
	<p><u>Interactions with participants</u></p> <p>Engaging appropriately and respectfully with participants in evaluation processes, upholding the principles of confidentiality and anonymity and their limitations; dignity and diversity; human rights; gender equality; and the avoidance of harm.</p>	<p>Whenever it was possible to include female and male respondents as well as persons of various social categories in interviews and collection of impact stories from project beneficiaries, this was done. All respondents were contacted and interviewed with utmost adherence to dignity and respect.</p>

[UNEG \(2016\). Norms and Standards for Evaluation](#)

4.3. Stakeholder engagement in and contribution to the evaluation

Various categories of stakeholder contributed towards the effective completion of the evaluation. These included UNDP which played an overall coordination role including liaising between the consultant and the focal points in partner institutions, providing relevant project data and documents, and providing additional information through key informant interviews. Officials at the Ministry of Environment provided documents regarding the project components implemented by the ministry and availed respondents for key informant interviews. A similar role was played by the Ministry of Agriculture and Animal Resources which, in addition, arranged beneficiaries of various best practices for further detailed interviews where impact stories were collected.

5. DATA ANALYSIS

This section describes the approach used in analyzing quantitative and qualitative data collected from both secondary and primary sources.

5.1. Analysis of secondary quantitative data

The second component of the assignment under the desk-based phase entailed analysis of secondary quantitative data. The main source of data was the monitoring and evaluation indicators as per the project's M&E framework. A score card approach was used to indicate the level of achievement on each quantitative indicator as a percentage of its respective target. The levels of achievements were then categorized as being fully achieved (e.g. status \geq target), satisfactory (e.g. status between 80-99% of target), moderate (e.g. status between 50-79% of target) and poor (e.g. performance on an indicator being below 50% of its respective target). This exercise was instrumental in ascertaining the **effectiveness** aspect of the project evaluation. Table 8 summarizes the scoring approach for the effectiveness evaluation criterion applied in this evaluation.

Table 8: Scoring approach for the effectiveness criterion

Achievement level	Achievement rating (% of target)	Color indicator
Fully achieved	100% and above	Green
Satisfactory	80-99%	Orange
Moderate	50-79%	Yellow
Poor	Below 50%	Red

Another aspect of the secondary data analysis involved reviewing budgetary allocations for each planned interventions and comparing them with the actual budget execution as reported in periodic financial reports of MINAGRI and MoE. Like in the case of activity/programmatic performance, budgetary performance was rated based on the amount spent by the partner institution in each quarter on each activity as a percentage of the originally allocated budget for the same activity. Any financial deviations were highlighted, for which the justifications were sought within the

reviewed quarterly and annual reports as well as during the stakeholder consultations (qualitative data collection) phase. This budgetary analysis exercise was instrumental in ascertaining the **efficiency** of the project interventions.

5.2. Analysis of primary qualitative data

The thematic approach was used to analyze qualitative data collected through key informant interviews and focus group discussions as summarized in Figure 2. Upon completion of the data collection exercise, responses were transcribed and examined in detail in order to identify similarities and differences, code responses, develop themes along which to characterize the subject matter and finally tabulate and/or visualize the responses according to the established themes. The information was presented according to the five evaluation criteria stipulated by the Development Assistance Committee (DAC). The overall qualitative analysis structure followed the simple six-step procedure of Braun and Clarke (2006).

Step 1: Familiarization: The text responses were thoroughly read and any audio recordings transcribed in order to familiarize with the stakeholder responses (data).

Step 2: Coding: Sections of the data/responses were highlighted to come up with shorthand labels or codes that describe the content of the data;

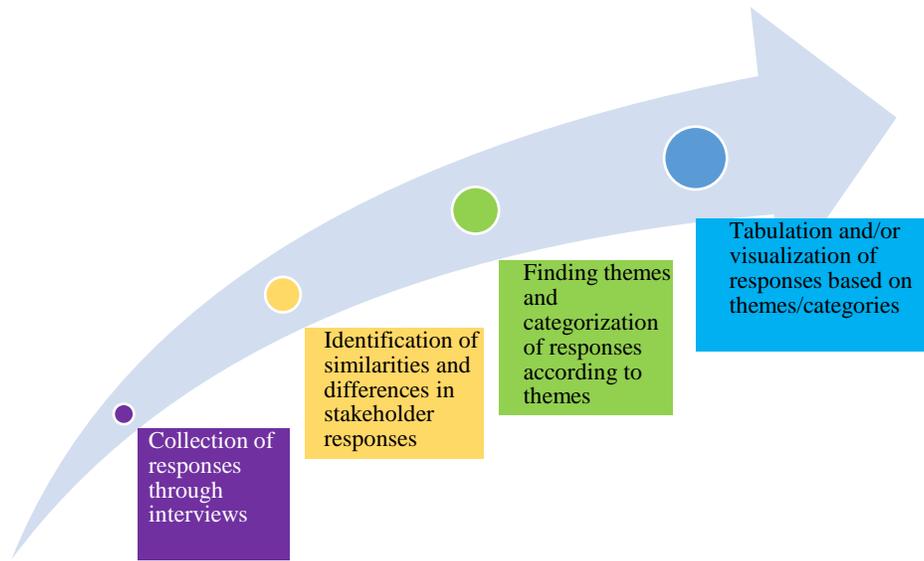
Step 3: Generating themes: The established codes were examined to identify patterns from which themes were generated. The themes were more broadly grouped or categorized codes that carry similar or closely related information;

Step 4: Reviewing the themes: The themes were scrutinized to ascertain how accurately they represent the data/responses. Where necessary, modifications were made to improve data representation;

Step 5: Defining and naming themes: This entailed clearly indicating what each theme in the final list of themes represents and exactly how it helps to understand the underlying data/responses;

Step 6: Representation and writing: The data was then tabulated or visualized based on the established themes to better illustrate and summarize the responses. The final task in the assignment was to write the findings, clearly making sense of the responses in line with the topic.

Figure 2: Structure of qualitative data analysis



*Source: Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.*

6. FINDINGS AS PER EVALUATION CRITERIA

This section presents the evaluation findings as obtained from a combination of desk review and field data collection exercises. The findings are presented as per the five evaluation criteria, namely; relevance, effectiveness, efficiency, sustainability and impact and of the NDC Project.

6.1. Relevance

In this subsection, findings related to the relevance of the NDC Project are presented. This focuses on three main sub-components, namely; suitability of the NDC Project to Rwanda's country context and alignment with national development strategies; alignment with priorities of the target group and donor; and consistence of activities with the overall goal, objectives and intended impacts.

6.1.1. Suitability to country context and alignment with national development priorities

Climate change and the associated extreme weather events are becoming a critical development challenge in Rwanda. Cognizant of this problem and in line with the requirements of the Paris Agreement, Rwanda submitted the revised NDC in 2020, highlighting mitigation and adaptation interventions to be implementation between 2021 and 2030. However, local technical and financial

capacities were quite inadequate to ensure effective implementation of the NDC. The NDC Project funded by UNDP contributes directly to the amelioration of capacity constraints to not only enhance the NDC implementation but also to propel the country to green growth as envisioned by various development policies and strategies. Priority Area 7 under the National Strategy for Transformation (NST1, 2017-2024) focuses on promoting sustainable management of the environment and natural resources to transition Rwanda towards a green economy, which resonates well with the scope of the NDC Project.

Climate change adaptation and mitigation are further pursued as development objectives within the country's Vision 2050 and Green Growth and Climate Resilience Strategy (GGCRS) to which the NDC Project and other flagship programs of UNDP and other development partners pertinently contribute. With regards to sectoral focus, agriculture is one of the key focus sectors for the NDC Project. This is consistent with the fact that the sector is a key NDC priority sector for both climate change mitigation and adaptation, motivated by the fact that it contributed over 50% of the country's inventory of GHG of 5.3 million tons of carbon dioxide equivalent (tCO₂e) in 2015 ([Government of Rwanda, 2015](#)). The fourth Strategic Plan for Transformation of Agriculture (PSTA4, 2018-2024), through Priority Area 2, emphasizes sustainable and resilient production systems for both crop and animal resources ([MINAGRI, 2018](#)). The NDC Project aligns with this priority by developing technical capacity and a resource mobilization strategy for climate-resilient agriculture projects among other interventions. Finally, by developing a resource mobilization strategy and supporting the development of bankable climate-resilient agriculture projects, the NDC Project resonates well with the aspirations of Vision 2050 to increase access to agriculture finance and risk sharing facilities ([Government of Rwanda, 2020](#)).

6.1.2. Alignment with priorities of target group and donors

Rwanda envisions becoming a green economy by 2030, which calls for building technical and institutional capacity to implement and coordinate interventions to realize this overarching development goal. UNDP and other UN agencies in Rwanda have been an integral part of this cause, supporting sustainable and inclusive development as part of the United Nations Sustainable Development Cooperation Framework (UNSCDF, 2018-2024) – formerly known as United Nations Development Assistance Programme (UNDAP). UNSDCF reiterates UN Rwanda's commitment to addressing critical gaps in technical capacity of key environment sector institutions

to develop policies, coordinate actions, enforce environmental regulations and mainstream environment and climate change issues into priority economic sectors. Between 2018 and 2024, UNDP intends to work with other UN agencies and development partners to strengthen the environment and natural resources sector by supporting the technical capacity of the Ministry of Environment, FONERWA, Rwanda Environment Management Authority (REMA) and Rwanda Meteorological Agency. Specifically, UNDP intends to provide technical and financial assistance to REMA to help Rwanda domesticate international environmental treaties and attain nationally determined contributions. Such interventions are meant to contribute to Outcome 2 of UNSDCF, which states that: “By 2024, Rwandan institutions and communities are more equitably, productively, and sustainably managing natural resources and addressing climate change and natural disasters”. The NDC Project is directly linked to this aspiration as it contributes to building the capacity of MoE and MINAGRI to respectively coordinate NDC implementation in general and climate resilient interventions in agriculture in particular. Additionally, by supporting in the implementation of a gender mainstreaming strategy and offering gender-targeted training, the NDC Project resonates with UNDP Rwanda country program goal of promoting gender-equity and livelihood generation and protecting the rights of vulnerable populations. Ultimately, the NDC Project is in line with UNDP’s Climate Promise¹ which directly contributes to realizing Goal 13 of the Sustainable Development Goals – Climate Action.

6.1.3. Consistency of activities with the overall goal, objectives and intended impacts

The overarching goal of the NDC Project is to build capacity on national sectors for the implementation of the country’s NDCs. Prior to the project, the Ministry of Environment faced critical capacity constraints to the coordination of NDC implementation. Among the major impediments were limited coordination between various institutions responsible for NDC targets and interventions; low level of awareness among both public and private sector players; insufficient data for projects preparation, for example lack of feasibility studies and access to climate finance for planned projects; limited capacity to track progress on implementation of NDC adaptation and mitigation actions; among others. The monitoring, reporting and verification (MRV) frameworks were also not well streamlined and some NDC indicators were not captured. The NDC Project was hence instrumental in building the technical and institutional capacity of the

¹ <https://climatepromise.undp.org/>

ministry especially by training of sector experts and upgrading the RBM&E framework for improved reporting. In the agriculture sector, there were critical knowledge gaps especially regarding analyzing, identifying and subsequently designing climate-resilient interventions

Overall, the project was quite successful in aligning the activities with this goal to ensure the intended impacts are realized. In order to address the human resource constraints to NDC implementation, several capacity building sessions were undertaken by the project to enhance the technical capacity of officials at partner institutions and their affiliates, in line with the output 1 of the project. A results-based monitoring and evaluation (RBM&E) system was also established, directly aligned with the intended enhancement of transparency in tracking NDC implementation. The project also put in place measures to address financial constraints to climate change mitigation and adaptation especially in agriculture by developing a resource mobilization strategy and training sector experts in drafting bankable projects.

6.2. Effectiveness

This subsection evaluates the project's performance in terms of the extent to which the project objectives and outputs were achieved, enabling and constraining factors to the realization of project objectives, justification of any deviations between planned and achieved milestones, consideration of gender mainstreaming approaches in project design and implementation, as well as strengths and weaknesses of UNDP's coordination mechanisms during project implementation. Overall, the design of the NDC Project was found to be quite effective without any critical flaws. Implementation was also generally effective despite some delays resulting mainly from difficulty in finding suitable consultants and the outbreak of COVID-19 and associated lockdowns which hindered the swift implementation of milestones that required physical interactions especially training, consultative and dissemination events.

6.2.1. Achievement of objectives, outputs and targets

Table 9 summarizes the project's performance with regards to achievements vis a vis planned outputs and targets. The last two columns of the table indicate the achievement status for each indicator at the end of the project in 2022 as well as the percentage of the set targets that was realized. Overall, the project performed quite well as most of the quantitative targets were met.

The project was quite effective at both design and implementation levels and the achievement rate for indicators with quantitative targets was relatively high. Specifically, 10 out of 12 quantitative indicators with explicit targets were either achieved or surpassed. These include; (i) training of 143 sector experts in various topics, exceeding the targeted 100 participants; (ii) production of an inventory report on actions contributing to NDC targets; (iii) integration of 33 NDC, SDG and gender-related indicators in the results-based monitoring and evaluation framework of the environment and natural resources sector, against a target of 30 indicators; (iv) production of a situational analysis report on low-carbon and climate-resilient agriculture; (v) development of a roadmap for the transition towards low-carbon and climate-resilient agriculture; (vi) finalization of a report on investment and financial flows in the agriculture sectors; (vii) development of a resource mobilization strategy for the agriculture sector; (viii) development of three bankable projects against a target of five projects; (ix) piloting of two best projects – hydroponic production of fodder and horticulture and agri-insurance; and (x) integration of NDC priorities in annual plans of 10 sectors, namely; energy, IPPU, waste, agriculture, forestry, land-use, human settlements, health, transport and mining.

One indicator exhibited moderate performance (50-79% of the respective targets), that is, establishment of a system to track climate financial flows. A feasibility study for the financial tracking system (CBT) was completed and capacity building undertaken, but operationalization is pending negotiations between MINECOFIN and IMF including some financial reforms that are yet to be finalized. One indicator on the number of people supported to participate in international conferences and workshops was not achieved because of global travel restrictions related to the COVID-19 pandemic.

Under Indicator 1.1, 143 officials from the public sector (central government, districts and sectors) as well as private and civil society sectors benefitted from various capacity building sessions including the following;

- ❖ Training of 20 experts in public, private and civil society sectors in planning and implementation of low-carbon actions in the agriculture sector;
- ❖ A training workshop for 21 sector experts for proposal development with an emphasis on proposals promoting low-carbon, climate-resilient agriculture;

- ❖ A refresher course on online data collection for 23 district and forestry and natural resources officers to enhance local capacity for reporting on NDC and SDG implementation;
- ❖ Equipping 50 sector experts (39 male; 11 female) and 30 district officials (28 male; 2 female) with knowledge and skills in the integration of updated NDC priorities in sector strategic plans, understanding NDC MRV Framework, stakeholder engagement, gender mainstreaming and linkage between NDC and SDGs. The beneficiaries included experts from environment and climate change, agriculture, energy, mining, infrastructure, urban planning and human settlement, forestry and water as well as officials from the Ministry of Education (MINEDUC), MINECOFIN, and the Ministry of Emergency Management.
- ❖ Training of 19 sector experts including sector development teams (data/information analysts, focal point managers, data providers, and end users from MoE and affiliated institutions, focusing on the operationalization and effective usage of the RBM&E system.
- ❖ Training 10 experts from the energy, transport, agriculture, water, land, forestry and environment sectors to equip them with skills for project proposal development.

According to the focal persons in implementing ministries, capacity building sessions were often delivered by skilled trainers and, to a great extent, produced the intended benefits including creating awareness of climate change, NDCs, resilience and low-carbon actions especially in agriculture. Following the training session on the integration of NDC priorities in development plans, participants generally became more eager and aware of the need to mainstream NDCs in national and local (district) plans and budgets.



*Training on resource mobilization and designing NDC-related.*²

Good performance was achieved under Indicator 1.2 as all ten key NDC sectors were supported to integrate NDC priorities in their annual plans as originally planned. These include energy, IPPU, waste, agriculture, forestry, land-use, human settlement, health, transport and mining. A planning checklist was already existing with sector-specific performance indicators, to which NDC indicators were added. Under Output 2, Indicator 2.1 was postponed from 2020 to 2021 following the recommendations of the Project Technical Committee and approval of the Steering Committee. Nonetheless, an inventory report on actions contributing to the realization of NDCs was successfully produced. The report provides information on existing initiatives contributing to the achievement of NDC targets and highlights necessary actions – including resource mobilization – to achieve set targets. With regards to Indicator 2.2, the project strengthened the Results-Based Monitoring and Evaluation (RBM&E) system for the Environment and Natural Resource (ENR) sector by upgrading indicators and metadata for the integration of NDC, SDG and gender related indicators as well as other measurement, verification and reporting (MRV) data to enhance the national capacities for NDC implementation, monitoring and transparency. In total, 21 NDC

² https://twitter.com/UNDP_Rwanda/status/1528729202601734145

indicators, 7 SDG indicators and 5 gender performance indicators were successfully integrated into the RBM&E system.

In addition, the Ministry of Environment embarked on ensuring interoperability of the system and worked with Rwanda Meteorological Authority (METEO) to link the RBM&E system to modern weather and climate infrastructure. This move was meant to position the system as a platform for aggregating information and data from various sectors towards the implementation of Vision 2050. In order to ensure effective usage of the system, a training workshop was held in Musanze between 3rd and 11th November 2021 to build the capacity of 19 sector experts engaged in the design and maintenance of the system. The beneficiaries were Sector Development Teams (SDTs) comprising of data/system analysts, focal point managers, data providers, and end users at the Ministry of Environment and affiliated institutions.

Indicator 2.4 was not achieved because COVID-19 and associated travel restrictions constrained the ability of the project to support staff to participate in international conferences/workshops. However, the project took innovative measures to facilitate knowledge exchange, including exploring options for virtual meetings. For example, the project management team and partners participated in IBFCCA virtual peer-learning and exchange on Strengthening Climate Change Budgeting Reforms, Transparency and Accountability that took place between 14-15 September 2021. The participants used the opportunity to share Rwanda's experience in conducting the feasibility study for integration of Climate Budget Tagging (CBT) in national systems as well as in private sector and civil society organizations.

Indicator 2.3 stipulated the plan to establish a tracking system for climate finance flows at MINECOFIN. The activity was delayed in the first quarter of 2021 because the financial offer of the successful bidder was higher than the allocated budget. The consultancy was referred back to UNDP for procurement. Despite these delays, two of the planned interventions under the activity were successfully implemented, that is, a feasibility study on climate budget tagging was completed and followed by capacity building for the relevant potential users of the system. The feasibility study verified how climate expenditure could be tracked through the national accounting system and informed the subsequent training of planners at the central and local government levels. Operationalization and roll-out of the CBT system is meant to be done after completing ongoing

negotiations between MINECOFIN and IMF on several issues including some financial reforms. Meanwhile, an Excel sheet (tool) was developed for the private sectors with some CBT-related indicators to track climate-related private investments. There are plans to build the capacity of private sector players on how to use the tool and raise their knowledge and awareness on the importance of tracking private investments related to climate change mitigation and adaptation.

Output 3 had two sub-outputs, both of which registered considerable success rates. Sub-output 3.1 was realized by successfully completing a commissioned situational analysis of low-carbon climate-resilient actions in the agricultural sector (Output Indicator 3.1.1). The report assessed existing low-carbon initiatives in the sector and identified gaps in mitigation and adaptation with regards to the realization of NDC priorities by 2030. A related achievement was the development of a roadmap to implement the identified low-carbon initiatives in the agriculture sector as per planned Output Indicator 3.1.1. Both achievements are directly linked to the desired realization of the NDC project objective of reducing vulnerability and increasing resilience of the agriculture sector against climate change and extreme weather events.

The NDC project was cognizant of the funding constraints that often impede climate change mitigation and adaptation especially in developing countries like Rwanda. This is reflected in the development of a report on investment and financial flows in the agriculture sector (Indicator 3.1.3), a resource mobilization strategy (Indicator 3.1.4) and development of bankable climate-resilient agriculture projects (Indicator 3.1.5). The developed proposals under Indicator 3.1.5 were;

1. Enhancing communities' Resilience to Food Shortages by Reducing Post-harvest Losses for Cereals;
2. Safeguarding Communities and their Investments against Landslide and Other Flood Related Risks in Gakenke District, Rwanda;
3. Overcoming Acute Food Insecurity for Households Living in Southern and Eastern Rwanda through Promotion of Cassava Value Chain;
4. Building Climate Resilience for Fisher Communities through Promotion of Fish Value Chain;
5. Enhancing Land Productivity in the Peri-urban Areas of Rwanda through the Adoption of Small Scale Horticultural Production Techniques.

The project delivered a gender-targeted training to build the capacity of farmers to develop bankable climate-resilient agriculture projects and ultimately ease access to finance challenges. Delivery upon this indicator was delayed and not completed in 2020 as planned originally as the consultant who was hired to support in resources mobilization for NDC implementation resigned after submission of an inception report, leading the tender to be re-advertised in 2021.

The quarterly reports from MINAGRI indicate that recruitments of consultants were delayed for three studies; the study on investment and financial flows in agriculture, the study on gender-targeted capacity building and training in development of bankable climate-resilient projects, and the risk mapping. All three studies were supposed to be commenced in Q2 of 2020 but evaluation of technical and financial proposals were delayed and took place in October the same year. Nonetheless, all the three reports were eventually completed.

Under sub-output 3.2, the project supported several pilot best practices including fodder and vegetable production using hydroponic farming technology which targeted 8 companies and cooperatives (4 female-headed; 4 male-headed). The financial support was quite crucial given the fact that hydroponic farming is quite expensive, requiring over 30 million Rwandan Francs (RWF) which would be quite challenging for the beneficiary farmers. Another best practice supported by the project starting from 2021 was agri-insurance in which 8,84ha of rice, 22,563ha of Irish potato and 559 cattle were insured against climate risks. A total of 3,218 male and 2,197 female small-holder farmers in cooperatives benefitted from the intervention, indicative of the considerable scale of effectiveness and potential impact of the project.

Although agri-insurance was already existing and being supported by the government and partners, the NDC Project helped to scale up and expand the number of beneficiaries especially during periods of insufficient public sector budget amidst the COVID-19 pandemic. The NDC Project adopted the existing modalities of the intervention in which the government used to pay 40% of the insurance premium while the beneficiary farmer topped up the remaining 60%. This intervention was implemented in partnership with insurance service providers like Bank of Kigali (BK), UAP, Radiant, Prime, among others. Insurance cover was provided for crops like Irish potatoes, pepper, maize as well as livestock production including dairy cattle, goats, pigs, etc. A further benefit of the insurance is that it is accepted as collateral which could enhance the farmers' access to agriculture credit.

Table 9: Summarized results framework: achievements on indicators and targets

Indicator	Data source	Baseline (2019)	Targets by:			Achievement (2022)	
			Year 1 (2020)	Year 2 (2021)	Year 3 (2022)	Status 2022	% of target
Output 1: Coordination capacities of NDC sectors enhanced to optimize actions that reduce GHG emissions, reduce vulnerability, enhance adaptive capacity and build climate resilience							
1.1 Number of staff trained to strengthen the capacity of the MoE and other NDC sectors	Training reports/ attendance lists	0	45 staff trained across NDC sectors	70 staff trained across NDC sectors	100 staff trained across NDC sectors	143 staff trained from district, central government, private sector and CSOs	143%
1.2 Number of sectors which integrated NDC priorities in their annual plans	Annual reports/ annual assessment reports	0	3 sectors	6 sectors	10 sectors	10 sectors	100%
Output 2: Transparency systems strengthened to track NDC implementation							
2.1 Number of reports summarizing the actions contributing to NDC targets	Database	0		1 inventory report	1 inventory report	1 inventory report completed	100%
2.2 Number of NDC, SDG and gender performance indicators integrated in the RBM&E system	RBM&E system, NDC, MRV, SDGs	1		10 NDC indicators 10 SDG indicators 10 gender indicators		21 NDC indicators 7 SDG indicators 5 gender indicators	NDC: 210% SDGs: 70% Gender: 50% Overall: 110%
2.3 Number of tracking system for climate finance flows established under MINECOFIN	Budget statements documents, work plans and annual budgets	0	0	1	1	Feasibility study and capacity	

						building on CBT	
2.4 Number of participants supported to participate in international conferences/meetings.	International conference s/meetings	0	2	2	2	0	0%
Output 3 - Inclusive sectoral transformation (Deep Dive) accelerated							
Sub-output 3.1 Inclusive sectoral transformation roadmap defined and NDC finance strategy elaborated							
3.1.1. Number of situational analyses on low carbon, climate resilient actions in the agriculture sector	Databases	0	0	1	0	1 situational analysis report completed in 2021	100%
3.1.2 Number of roadmaps developed for the transition to low carbon and climate resilient agriculture	Studies/ Analyses	0	0	1 roadmap	0	1 roadmap developed and finalized in 2022	100%
3.1.3 Number of investment and financial flows analyses in agriculture sector	Reports and action plans	0	1	0	1	1 report completed in 2021	100%
3.1.4 Number of Resource mobilization strategies developed.	Policies, strategies, action plans and reports	0	1 resource mobilization strategy			1 strategy completed in 2021	100%
3.1.5 Number of bankable NDC projects developed and linked to funding sources	NDC plan and sector documents	0	2	5	5	5 proposals completed	100%
Sub-Output 3.2 Enabling environment established for private and public sector investment mobilization							
3.2.2 Number of best practices piloted to mitigate investment risks	Policy documents, strategies, work plans, reports, data	0	1 targeted study completed	2 best practices piloted completed	4 best practices piloted completed	1. Green production of fodder using hydroponic method	100%

	collection in field					2. Hydroponic production of horticultural products 3. Agri-insurance 4. Solar irrigation	
3.2.3 Number of climate resilient actions that are gender sensitive.	Policy documents, strategies, reports, gender mainstreaming plans, policy documents, strategies, reports, gender mainstreaming plans	0	No target	No target	No target	Reports on gender-targeted training/coaching to identify and design bankable climate-resilient agriculture projects; report on gender gap analysis in 3 sectors; gender mainstreaming strategy	No target

6.2.2. Linkage between activities and output indicators

This subsection examines the extent to which the project’s activities were linked to and aligned with specific output indicators as a measure of effective design of the project. Table 10 shows the connection between activities stipulated in the multi-year work plan and the output indicators outlined in the results framework of the NDC Project. Overall, the project generally attempted, to the extent possible, to link activities to outputs and output indicators with specific targets. However, there were some inconsistencies between the work plan and results framework that made it tricky to link some activities with output indicators which, to some extent, undermined the efficacy of the monitoring and evaluation framework of the project.

Table 10: Linkage between activities and output indicators

S/N	Activity (as per multi-year work plan)	Output indicator (as per results framework)	Comment
Output 1: Coordination capacities of NDC sectors enhanced to optimize actions that reduce GHG emissions, reduce vulnerability, enhance adaptive capacity and build climate resilience			
1	1.1 Strengthen the capacity of the MoE and other NDC sectors through training/workshops/coaching and shadowing to develop and implement cross-sector NDC priority actions through a whole of society approach	1.1 Number of staff trained to strengthen the capacity of the MoE and other NDC sectors 1.2 Number of sectors which integrated NDC priorities in their annual plans	Activity well aligned with and directly linked to specific output indicator
2	1.2 Organize regular coordination, information exchange and review meetings among partners and sectors for leveraging and mobilizing their respective advantages in support of the Partnership Plan	No specific output indicator	No specific output indicator, however, regular review meetings were convened as planned.
3	1.3 Collect and disseminate good practices (success stories) and challenges resulting from NDC implementation	No specific output indicator	No specific output indicator, however, good practices were identified.
4	1.4 Advocacy campaigns and high-level policy dialogues on high-impact strategic issues such as carbon pricing, climate risk disclosures, and climate risk screening	No specific output indicator	No specific output indicator and target for campaigns, but periodic workshops happened.
5	1.5 Conduct a gender gap analysis in 3 key NDC sectors; develop a gender mainstreaming strategy for these sectors and facilitate its implementation	No specific output indicator	No specific output indicator, however, gender gap analysis was carried out as planned.
Output 2: Transparency systems strengthened to track NDC implementation			
6	2.1 Undertake inventory of current actions that are contributing to NDC targets	2.1 Number of reports summarizing the actions contributing to NDC targets	Activity well aligned with and directly linked to specific output indicator
7	2.2 Strengthen data management & MRV capacity for adaptation and mitigation actions and climate finance (tracking of climate financial flows from all sources)	2.2 Number of NDC, SDG and gender performance indicators integrated in the RBM&E system	Activity indirectly linked to specific output indicator

8	2.3 Support MINECOFIN to establish a tracking system for climate finance flows from all sources to ensure consistent NDC budget statements and NDC sustainable financing.	2.3 Number of tracking system for climate finance flows established under MINECOFIN	Activity well aligned with and directly linked to specific output indicator
9	2.4 Support participation of MoE, MINECOFIN and NDC priority sectors in international transparency and reporting meetings for experience sharing and learning.	2.4 Number of participants supported to participate in international conferences/meetings.	Activity well aligned with and directly linked to specific output indicator
Output 3 - Inclusive sectoral transformation (Deep Dive) accelerated			
Sub-output 3.1 Inclusive sectoral transformation roadmap defined and NDC finance strategy elaborated			
10	3.1.1 Conduct a situational analysis of low carbon, climate-resilient action in the agriculture sector that contribute to NDC targets and identify existing gaps	3.1.1. Number of situational analyses on low carbon, climate resilient actions in the agriculture sector	Activity well aligned with and directly linked to specific output indicator
11	3.1.2 Develop a roadmap for the transition to low carbon and climate resilient agriculture in Rwanda	3.1.2 Number of roadmaps developed for the transition to low carbon and climate resilient agriculture	Activity well aligned with and directly linked to specific output indicator
12	3.1.3 Conduct analysis of climate investment and financial flows in agriculture sector	3.1.3 Number of investment and financial flows analyses in agriculture sector	Activity well aligned with and directly linked to specific output indicator
13	3.1.4 Provide Technical Assistance to support in resource mobilization for low carbon, climate resilient and gender sensitive projects to improve the productivity of smallholder farmers and accelerate NDC implementation in other sectors;	No specific output indicator	No specific output indicator, however, technical assistance was carried out throughout various aspects of the project's implementation.
14	3.1.5 Develop and implement a resource mobilization strategy and framework for agricultural climate resilient projects including adaptation and mitigation measures	3.1.4 Number of Resource mobilization strategies developed.	Activity well aligned with and directly linked to specific output indicator
15	3.1.6 Conduct environment/climate change and gender targeted trainings/mentoring and coaching to build capacities to identify and design bankable agricultural climate resilient NDC related projects and to address critical barriers to finance.	3.1.5 Number of bankable NDC projects developed and linked to funding sources	Activity well aligned with and directly linked to specific output indicator
Sub-Output 3.2 Enabling environment established for private and public sector investment mobilization			
16	3.2.1 Provide technical assistance to MINAGRI to oversee NDC	No specific output indicator	No specific output indicator, however,

	implementation across agriculture sector		technical assistance was carried out throughout various aspects of the project's implementation.
17	3.2.2 Conduct risk mapping and develop mitigation measures to orient private investment opportunities in climate resilient agriculture and piloting best practices	3.2.2 Number of best practices piloted to mitigate investment risks	Activity well aligned with and directly linked to specific output indicator
18	3.2.3 Implement gender mainstreaming strategy for climate resilience agriculture sector and address any potential bottlenecks facing the sector	3.2.3 Number of climate resilient actions that are gender sensitive.	Activity well aligned with and directly linked to specific output indicator

6.2.3. Consideration of gender mainstreaming

The project design and implementation took adequate consideration of gender mainstreaming. At design level, the NDC project considered planned to rely on the Gender Monitoring Office (GMO) to track gender-related interventions in all NDC sectors and carry out year-to-year monitoring and evaluation using the gender mainstreaming strategy that was under development at the time when the NDC project was conceived. The strategy provided clear actions to be taken to mainstream gender in NDC implementation. Activity 1.5 under output 1 focused on conducting a gender gap analysis in three key NDC sectors as well as develop and facilitate the implementation of a gender mainstreaming strategy in the selected NDC priority sectors. As the chair of the ENR sector, UNDP pledged continued support to mobilize funding for the implementation of the strategy. Gender mainstreaming was further considered at the implementation level, where a gender gap analysis was conducted in three sectors, namely; agriculture, water resources and off-grid electrification. Additionally, five gender-related performance indicators were integrated into the results-based monitoring and evaluation framework of the ENR sector (RB M&E) to enable collection of gender-disaggregated data for effective planning.

There was also gender-targeted capacity building through training, mentorship and coaching for the development of bankable climate-resilient agriculture projects to ease the constraints of access to agriculture finance faced by female and male farmers. The project further attempted to consider gender balance in the selection of trainees for capacity building interventions. However, there was a limitation in certain circumstances where the existing gender composition of officials in the respective beneficiary institutions could not permit appropriate gender balancing in the selection of participants.

6.2.4. Coordination mechanisms

The NDC Project took measures to ensure the joint implementation of the project with substantial engagement of stakeholders through various consultative and capacity building workshops, high level dialogues and awareness events. To begin with, a National Implementing Modality (NIM) was adopted throughout the project implementation where UNDP provided technical and financial support to enhance the planning, implementation and monitoring of project delivery. In order to ensure adherence to project outputs and activities in line with project objectives, regular steering committee meetings were held. Composed of UNDP as the lead, MoE, MINAGRI, Rwanda Housing Authority (RHA), Rwanda National police (RNP), Environment and the Fund for Climate Change (FONERWA), Rwanda Investigations Bureau (RIB) and the Cleaner Production and Climate innovation Center, the committee acted as a platform for stakeholders in the ENR sector to share regular updates on the progress and challenges in implementation of NDCs.

Joint sector review meetings were also held regularly to further strategize and align the project implementation to intended objectives and make adjustments whenever deemed necessary. For example, in 2021, two meetings were held to discuss NDC financing and implementation (25th June) and MRV frameworks (27th October). In the same year, a two-day high-level workshop was held between 9th and 10th for Permanent Secretaries from MoE and MINECOFIN and Director Generals of planning from MINAGRI and Ministry of Infrastructure (MININFRA) to discuss avenues to integrate NDCs in the respective sector annual action plans for the fiscal year 2022/2023. In a similar initiative, four districts were supported to integrate NDC priorities in District Development Strategies (DDS). Additionally, during the preparation of technical reports, various stakeholders from public and private sectors as well as local and international organizations were often engaged and consulted. For example, the reports on gender-targeted capacity building for bankable climate-resilient agriculture projects and analysis of investment and financial flows in agriculture were prepared in close collaboration among UNDP, USAID, FAO, WFP, and the World Bank. This was instrumental in quickening the production of respective reports and raising their overall quality.

The project further maintained strong partnership with and engagement of the private sector which was very useful in quickening and easing the identification and implementation of best practices especially with regards to climate-resilient actions in the agriculture sector. The stakeholder engagement mechanisms further helped build synergies and reduce duplication of interventions by various development partners. For example, a workshop held on 20th October 2021 at Marriott Hotel to launch the NDC implementation framework helped to build synergies, identify responsibilities and financial contributions needed to effectively implement the NDCs. Overall, the NDC Project's focal persons in the implementing institutions appreciated the coordination mechanisms of UNDP. One focal person mentioned that “*Sometimes the project coordinator from UNDP would sit down in our office to jointly work with us on study questionnaires, work plan approval and other tasks*”. Joint planning and knowledge sharing as well as additional facilitation like linking the focal persons to various sector experts from other institutions was always helpful in the effective and timely implementation of the project's interventions.

Notwithstanding the good performance, there were a few weaknesses or loopholes. To begin with, information gathered from key informant interviews reveals that the project assigned inadequate human resources in the implementing ministries, which created overload as the focal persons had to do administrative, supervisory, monitoring, evaluation and reporting and other tasks of the project in addition to their routine/mandated duties. Secondly, in some instances, when a milestone was delayed in one quarter, the next quarter reporting did not give updates on the current status of the delayed milestone in addition to reporting on the current quarter's achievements. This was the case with the system to track financial flows which was supposed to have updates in the last quarter of 2021 but didn't.

6.3. Efficiency

This section discusses the efficiency aspects of the project, including examining the quarterly budget execution rates for the key partner institutions and assessing the value-for-money aspect as well as the extent to which activities were implemented in the most cost-effective manner compared to alternatives. To begin with, the implementing ministries often considered public finance management and procurement frameworks, including public announcement of tenders for consultancy services followed by appropriate assessment of technical and financial proposals of

bidders. For non-consultancy services like purchase of equipment and supplies including hiring of venues for training, consultative and dissemination workshops, service providers like hotels with existing memoranda of understanding (MoUs) with the respective ministries were considered. These measures not only reduced the time and cost of contracting but also ensured accountability and transparency. An additional indicator of the project's efficiency is the use of local experts to review project proposals and consultancy reports, which was a relatively cheaper option than reliance on international experts. The use of virtual platforms was an additional cost-saving approach as opposed to physical meetings and workshops – although the former approach has challenges of limited participation and interaction. Additionally, the project devised cheaper means of implementation, for example hiring a consultant rather than recruiting a full-time technical assistant to support in resource mobilization.

With regards to budget performance, Table 11 provides the budget execution rate, comparing the project annual expenditure with the allocated budget for the respective years; 2020, 2021 and 2022. Overall, performance was relatively good despite a few shortfalls especially COVID-19 which disrupted the routine operations of the implementing partner institutions. The biggest shortfall for MINAGRI was experienced in the third quarter of 2020 when COVID-19 disrupted the timely and normal delivery of some activities like hiring a national expert to support MINAGRI in implementing NDCs in agriculture (part of Activity 3.1.4). For MoE, the following activities experienced the most critical differences between plan and actual expenditure which, however, were approved by the project steering committee.

- ❖ Strengthening the capacity of the MoE and other NDC sectors through training/workshops. Expenditure was far below the allocated budget because training sessions were conducted virtually instead of being in-person;
- ❖ Consultancy to support resource mobilization for NDC implementation;
- ❖ Supporting MINECOFIN to establish a tracking system for climate finance flows from all sources to ensure consistent NDC budget statements and NDC sustainable financing;
- ❖ The activity to support MoE, MINECOFIN and NDC priority sector experts to participate in international transparency and reporting meetings for experience sharing and learning was not undertaken due to COVID-19 and hence the allocated funds were not utilized for this activity.

Table 11: Annual budget execution performance for the NDC Project

Year	Allocated budget	Expenditure	Execution Rate (%)
2020	327,884	170,009.46	51.9
2021	715,233	538,185.52	75.2
2022	541,633	612,996.12	113.2
Total	1,624,750	1,321,281.1	81.3

Source: Annual Combined Delivery Reports (CDRs) from UNDP

6.4. Sustainability

This section assesses the extent to which the project considered both financial and environmental sustainability. With regards to financial sustainability, the NDC Project took measures at both design and implementation stages to ensure the continuation of results after donor funding ceases. At the project design level, the NDC project banked on the political will and policy commitment to implementing the NDC during the period 2021-2030. Additionally, the project’s approach was unique in such a way that it emphasized capacity building and establishment of systems, platforms and processes meant to improve coordination of NDC implementation with long-term results. The implementation approach coupled with political will guarantee to some extent the continuation of results created by the project beyond its duration. Further measures taken to ensure sustainability at design stage include tasking MoE, MIGEPROF/GMO to closely work with the NISR to continue collecting gender disaggregated data in different national surveys to support gender monitoring. Additionally, the project planned to strengthen the capacity of the Ministry of Gender and Family Planning and the Gender Monitoring Office to effectively participate in the formulation of gender-responsive targets and indicators as well as track gender-related NDC performance indicators. The design of the project anchoring key result areas to development priorities at the national level (e.g. NST1, Vision 2050, GGCRS, etc.) and at the sector level (e.g. Priority Area 2: increased productivity and resilience and Priority Area 4: enabling environment and responsive institutions under PSTA4 2018-2024) guarantee continued pursuit of the aspirations of the NDC project even after its completion.

At implementation level, the project took measures to ensure the financial sustainability of outputs in several ways. Firstly, developing a resource mobilization strategy, training of sector officials in proposal development and coaching of farmers to develop bankable projects were all crucial steps towards addressing challenges of limited access to finance for the implementation of climate-resilient projects in the agriculture sector. Financial sustainability was further enhanced by involving the private sector and supporting them to scale up best practices in climate-resilient farming. With regards to environmental sustainability, the NDC Project produced reports on climate resilient actions in agriculture, supported best farming practices that reduce GHG emissions from the agriculture and adapt the sector to climate change. Examples include agri-insurance and hydroponic production of fodder and horticultural products which, in some cases, was combined with solar-powered mini-irrigation systems.

The involvement of relevant stakeholders was a crucial step taken by the project to ensure ownership, accountability and continuity of the strategic interventions. For example, activities related to agriculture were coordinated by MINAGRI and were quite synergetic to the routine work of the ministry. This guarantees the continued implementation of such activities even after completion of the donor-funded NDC Project. The developed roadmap to implement low-carbon actions in agriculture as well as recommendations that came out of the various studies are indeed informing priority setting in MINAGRI's strategic plans. The findings have also revealed critical gaps, opportunities and challenges in low-carbon agriculture which will inform investment decisions of the private sector. Realizing full benefits would require continuous training for experts to cope with dynamic issues in the climate-agriculture nexus. In a recent internal survey within the ministry to identify missing indicators to add to the existing management information system (MIS), the NDC Project focal person raised indicators related to NDCs. If the recommendations are adopted, this will be a crucial step in the ownership of NDC-based reporting by the ministry, a move that would sustain the benefits and good practices initiated by the NDC Project.

Similarly, activities related to the system to track climate financial flows – including its feasibility study and associated capacity building – involved active participation of MINECOFIN while development of the results-based M&E framework for the environment and natural resource sector entailed active participation of administrators and data managers from MoE and other institutions. Such activities are part of the routine mandates of the respective partner institutions and as such,

they could continue to be implemented even when NDC Project funding ceases. In fact, the RBM&E system is already being upgraded and indicators will continue to be tracked beyond the project's life. Additionally, MoE and MINECOFIN are likely to pursue budgetary allocations and/or additional external funding for the continued implementation of climate budget tagging intervention based on the promising findings of the recently concluded feasibility study. There is also a possibility that the International Monetary Fund (IMF) will fund the operationalization of CBT in the public sector based on the potential benefits identified in the feasibility study.

All in all, discussions with stakeholders revealed that coordination at SPIU level ensures that results are sustained and future initiatives build on the previous achievements. Proper documentation of project activities and outcomes is a key motivating factor to raising stakeholder buy-in for continued implementation of the project activities. Some activities like results of technical studies or consultancies and support provided to small projects (piloted best practices) will be followed up by relevant stakeholders including MoE – through SPIU – and technical departments and private sector players. Furthermore, the developed concept notes and project proposals will be followed up by MoE, MINAGRI and UNDP for potential resource mobilization. Capacity building as an integral component of the project helped create knowledge that would continuously guide the various sector officials in their routine work related to climate change mitigation and adaptation, directly contributing to the country's NDC implementation.

6.5. Impact

The NDC Project already shows early signs of multi-dimensional impacts at different levels. At the ministerial/institutional level, the project enhanced the capacity of MoE and MINAGRI to coordinate and track the implementation of the NDC in general and NDC priority interventions in agriculture specifically. Specifically, MoE was able to work with various sectors to mainstream NDC priorities using a checklist of indicators, including integration of the results-based monitoring and evaluation framework of the environment and natural resources sector with reporting systems of other sectors. Indeed, officials at MoE believe that this will strengthen the ministry's capacity to not only coordinate and track NDC implementation but also foster compliance with international reporting requirements and reduce duplication of interventions. Capacity building in resource mobilization is anticipated to ease the funding constraints that often hinder implementation of climate change adaptation and mitigation projects. There were also other unintended benefits like

acquisition of video conferencing equipment for virtual meetings and workshops amidst the COVID-19 pandemic, which came in handy as such equipment were lacking in MINAGRI's conference hall. The facilities are indeed valuable and eased participation in virtual meetings by several teams at the ministry, beyond the NDC Project. Furthermore, the ministry was able to learn from the piloted best practices which alternative interventions and farmer support models are more effective – for example hydroponic farming, solar-powered irrigation, etc. – which information is critical for strategic planning purposes.

At the level of individual sector experts, impact has been in the form of augmented technical skills acquired through several training sessions which in turn have increased the ability of the respective officials to deliver upon their mandate for improved service delivery. This is coupled with exposure of the various sector experts to international movements on low-carbon growth. For example, the focal person in MINAGRI was nominated to attend the 27th Conference of Parties (COP 27) as a women negotiator in the agriculture sector.

A third dimension of the project's impact is in form of enhanced resilience and improved socio-economic outcomes for the beneficiaries of piloted best practices especially in agriculture. Through and together with MINAGRI, the NDC Project provided technical and financial support to owners of agriculture and agri-business ventures that were identified as best practices contributing towards minimization of greenhouse gas emissions and/or adapting to the adverse impacts of climate change. Discussions with beneficiaries revealed that benefits realized so far include expanded production of fodder and horticultural products, increased incomes from farming activities, employment creation, cost saving for example after switching from generator-powered to solar-powered mini-irrigation systems, among other impacts. The impact stories from these interventions are described in subsequent subsections.

Impact story 1: Hydroponic fodder production by Uruhimi Kagyeyo Ltd. in Gicumbi

The NDC Project, through MINAGRI, provided financial support to Uruhimi Kagyeyo Limited, a youth cooperative in Gicumbi district. The cooperative produces fodder for livestock and poultry using hydroponic farming methods – growing crops on water rather than soil as a medium. The cooperative attempts to solve two problems, namely, the high cost of fodder for farmers in the community and the limited land that cannot support large-scale growing of fodder. The process

begins with soaking of wheat and maize grain in water for two and three days, respectively in a plastic drum covered with a thick polythene paper for heat concentration. After 2-3 days, sprouts emerge from the soaked grain, which are then transferred to an aluminum tray measuring 25 centimeters in width and 75 centimeters in length. On every tray, two kilograms of grain are planted which yield 14 kilograms on average within five to seven days when the grass is ready to be fed to livestock and poultry. The farming technique is quite simple and purely organic as no chemical fertilizer and pesticides are applied and irrigation systems purely rely on natural gravity.

In terms of impact, the fund from UNDP coupled with technical support from MINAGRI enabled the cooperative to expand production by building a second greenhouse measuring 30 meters in length and eight meters in width, with a total production capacity of 60 tons of fodder per week. This was considerable expansion from the original single greenhouse from which the cooperative used to produce 25 tones of fodder weekly. The number of wheat and maize suppliers also increased from one to six, which has increased reliability and variety of supplies for continuous production by the cooperative. The second impact dimension is in terms of employment created for builders of the second greenhouse, plumbers that installed gravity-flow water systems and administrators of the cooperative. The cooperative currently employs eight operational staff including three females and five males. Hydroponic fodder production now provides a source of livelihood to 12 youth members of the cooperative, five of whom are female and seven are male. In terms of income, the newly acquired greenhouse helped increase the cooperative's net income from approximately 700,000 Rwandan francs (RWF) to the range of 900,000-1,200,000 RWF per month. During key informant interviews with cooperative officials, the Operations Manager, Mr. Tuyitegereze Benjamin emphatically appreciated the contribution from UNDP and MINAGRI (through the NDC Project) towards the cooperative's expansion. He mentioned that; *“We have managed to buy trays on which to grow the fodder and constructed a greenhouse with a production capacity of 60 tons per week. This would not have been possible without the financial and technical support from UNDP and MINAGRI”*



Besides the direct impact and benefits to the cooperative, the piloted best practice helped farmers within the communities served by the cooperative to reduce the cost of production as they acquire fodder at a reduced price of 150 RWF per kilogram, compared to the conventional price of alternative fodder like elephant grass averaging around 300 RWF. Secondly, production of milk increased for farmers who use the fodder, given the high nutritional content of wheat (protein) and maize (carbohydrates). According to the cooperative, a random survey of farmers in the community revealed increases in milk yield of 3-9 liters. Farmers also reported reduced expenditure on veterinary services due to increased health of their livestock. Clearly, the venture is having numerous socio-economic and environmental impacts for the cooperative and its members as well as farmers and the community at large. The achievements however have not come easily, as the cooperative still grapples with challenges to the expansion of its operations. These include the lack of adequate storage facilities for wheat and maize grain which limits bulky stocking for higher-volume production to serve the growing demand; insufficient supplies of grain especially wheat; high perishability of fodder which goes bad in five days since harvest. According to the cooperative, the latter challenge could be circumvented by acquisition of a machine that turns raw fodder into pellets that could be stored for a longer period and delivered to farmers in many parts of the country.

Impact story 2: Hydroponic growing of strawberry by Classic Farm Limited in Masaka

Another best practice that was piloted under the NDC Project is hydroponic farming of strawberries by Classic Farm in Masaka, Kigali City. The NDC Project, through MINAGRI, provided non-repayable financial support to the farm to support in expanding farming operations, specifically the growing of strawberries in a greenhouse using hydroponic farming technique involving the use of a rooting media rather than soil as a growth medium. The obtained funds were used to build a new greenhouse measuring six meters in width and 24 meters in length and install a solar-powered mini-irrigation system at the farm. By growing strawberries in a greenhouse rather than in open space, and by using hydroponic rather than conventional farming technology, the farm anticipates to benefit from enhanced ability to control the growth environment and associated ability to grow strawberries throughout the year irrespective of the season. Additionally, by adopting the vertical farming technique, the company attempts to address maximize strawberry grown on a relatively small piece of land.

In terms of progress, by the time of the field visit in early December 2022, the greenhouse was fully constructed and the vertical farming system was installed in the greenhouse. Actual farming had however not yet started as the farm was awaiting seeds whose order was delayed by the supplier. However, the investment has already produced some early impacts and shows signs of additional potential impacts in future. The first form of impact is that the solar-powered water pump helped the farm save between 100,000 to 125,000 Rwandan Francs (RWF) per month which was previously incurred on fuel for a generator to pump water for irrigation purposes. After switching to solar-powered pump, operational expenses on irrigation plummeted to zero. The second direct impact is temporary job creation including opportunities for the construction of the greenhouse and installation of vertical farming systems. To be precise, five workers – including two females – were hired to construct the greenhouse under the first disbursement of funds. The farm further plans to hire a permanent worker to specifically take care of strawberry farming under the newly constructed greenhouse. The farm also anticipates many potential benefits including expansion of production where the greenhouse could produce approximately 400 kilograms of strawberries per month. Considering average prices of 4,000-5,000 RWF, this could imply additional monthly income for the farm ranging between 160,000-200,000 RWF.

The representative of the farm, Ms. Uwineza Clementine expressed her gratitude for the financial and technical support from UNDP and MINAGRI, mentioning that; “*We owe the achievements so far to UNDP because of the financial support without which we would not have managed to construct a greenhouse that would later enable us grow crops across all seasons without worrying about rain and pests like birds.*” Besides the direct benefits, the farm believes the expanded production will help other players along the value chain access raw materials, as cake bakers for example have started showing interest in buying strawberries as a raw material in their production. Overall, Ms. Uwineza believes that the venture will greatly improve the wellbeing of the farm owners – including herself – and – their families. There are however remaining challenges including lack of reliable supplies of seeds. To illustrate the severity of this challenge, the company submitted its order for seeds in October 2022 but the earliest delivery by the supplier is supposed to be December the same year. With regards to future opportunities to expand production, the farm considers acquisition of bigger land and cold room storage facilities as quite important.



Greenhouse with vertical farming system (left); panels for solar-powered irrigation (right) at Classic Farm, Masaka

Impact story 3: Hydroponic farming by Germinate Rwanda company in Bugesera

Germinate Rwanda is one of the companies that received financial support to expand the growing of strawberry using hydroponic farming method. The financial support received as part of the NDC Project was used to obtain improved seeds of strawberry from Netherlands and automate farming activities including acquisition of a machine that helps in controlling the PH level and

electroconductivity. Part of the funding was also used to rehabilitate the existing greenhouse to increase its resilience against strong winds. Early signs of potential impact include increased harvest from nearly zero kilograms due to poor seeds and soluble fertilizer, to 15-18 kilograms after automation and obtaining improved seeds. The enterprise has also created employment for two full-time paid workers and about 25-30 female casual laborers especially at planning stage. The company is in the process of hiring a permanent worker with specific expertise in hydroponic farming. For future expansion, the company wishes to build more greenhouses and make use of the existing 2-3 hectares of land to maximize strawberry production.



Hydroponic system in greenhouse (left); harvested strawberries (right) at Germinate Rwanda

7. ENABLING FACTORS, CHALLENGES AND LESSONS LEARNT

7.2. Enabling factors to the realization of objectives and targets

Among the key factors that enabled the realization of objectives and outputs was the participatory approach adopted by the project. For example, the engagement of stakeholders from public, private and CSO sectors in the production of consultancy reports helped enhance the quality of reports. Similarly, engaging with the private sector was instrumental in quickening and easing the identification and implementation of best practices in climate-resilient agriculture. The willing leadership at UNDP and the implementing partner institutions as well as effective coordination and stakeholder engagement mechanisms came in handy for the successful implementation of the NDC Project. The responsible institutions actively participated in joint development of terms of

reference for various studies and capacity building sessions and convened biannually to evaluate project performance and jointly plan interventions to be implemented in the next half-year period. The agenda for the project steering committee was also always set jointly by the responsible institutions which created ownership and facilitated implementation of activities as well as regular reviews and quarterly reporting. Periodic technical meetings were also important with regards to timely adjustment of implementation strategies whenever necessary. The PSC was also responsive and supportive especially with regards to approving any necessary budget reallocations and programmatic changes. Existing partnerships between government and non-government institutions through MoUs helped ease procurement purposes. For example, MoUs between MoE and MINAGRI often eased procurement of venues for training, consultative and dissemination workshops. Additionally, the use of local sector experts in reviewing project proposals and consultancy reports was quite effective in easing and quickening implementation.

7.2. Constraining factors and challenges

The COVID-19 pandemic and associated containment measures like lockdowns adversely impacted the timely implementation of some project interventions. For training sessions, the pandemic's adverse effects were in the form of either reduced attendance or quality of the various training sessions. For example, the number of participants for the gender-targeted training lower than expected while the training on NDCs and MRV for sector experts could not be conducted physically and the virtual alternative limited the extent of networking, practical exercises and interactions among participants and in turn reduced their internalization of the content. This was exacerbated by the fact that the virtual platforms were quite new and both trainers and trainees were not yet well acquainted with them. According to officials from MoE, some beneficiaries admitted that even currently, they still find it difficult understanding some of the climate change and NDC concepts which they learned during the virtual sessions. Similarly, a planned consultative meeting with Parliamentarians was not possible because of the prevailing pandemic situation. The planned facilitation of technical team members to participate in international workshops and events was also not realized because it was planned in the first year of the project which was then affected by the outbreak of the pandemic. As a coping strategy, the project work plan was revised accordingly to focus on other activities that did not require physical interactions. For interventions in agriculture, several studies that were supposed to be done in 2020 were delayed by the pandemic

and one was postponed to 2021. It is important to note that these studies were the basis of subsequent interventions for example piloting of best practices, which were in turn delayed due to late recommendations from the respective studies.

The project faced critical human and financial resource constraints especially within the implementing ministries. For example, at MoE, SPIU didn't have enough staff and one focal person – with the support of the project manager – acted as the key technical personnel following up on the project implementation alongside other routine activities of the ministry. Similarly, the activities implemented by MINAGRI were overseen by one project manager/coordinator who had to oversee several simultaneous consultancies and undertake administrative and monitoring and evaluation duties which caused some implementation delays. Limited funding was another critical challenge and budget constraints limited the amount of money granted to each piloted best practices which, in turn, limited the intervention scope of the respective enterprises.

Procurement processes for some consultancies were quite prolonged and at times successful bidders were not found early enough for the timely implementation of intended activities while for some studies, the most technically qualified bidders had financial offers well above the budget allocated to the respective activities which necessitated readvertisement of tenders. Such delays often translated into late delivery upon certain outputs of the project. Closely related to this is the issue of insufficient funds for certain activities, which was however circumvented by reallocation of funds upon approval by the PSC.

7.5. Lessons learnt

Examining the project design and implementation through desk review and stakeholder consultations revealed several lessons that were learnt during the duration of the project. The lessons learnt are meant to further strengthen the design and implementation of future phases of the NDC Project and/or similar projects that could be conceived and designed in future. Specific lessons include but are not limited to the following.

- ❖ Collaboration among public, private and civil society institutions is crucial for raising awareness regarding the integration of NDCs in the plans of stakeholder institutions.

- ❖ Joint planning, monitoring and reporting is always very helpful for the effective implementation of the project and should hence always be pursued to foster stakeholder commitment and ownership.
- ❖ In the selection of best practices to be piloted and/or scaled up, community involvement is quite important in identifying the specific interventions that have potential to create substantial impact not only for the primary beneficiaries but also for the community at large;
- ❖ Consistency, close collaboration as well as quick and timely communication among stakeholders is quite important for effective project implementation of project activities;
- ❖ Using local sector experts to review funding proposal and consultancy reports helps in reducing implementation costs and facilitating knowledge transfer;
- ❖ Close monitoring of the project helps in identifying circumstances when changes in the implementation strategy are required and act accordingly;
- ❖ Early recruitment of consultants creates flexibility and eases contract management.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Conclusions

The “Deepening Efforts to Accelerate the NDCs Implementation” project was funded by UNDP and jointly implemented with the Ministry of Environment (MoE) and Ministry of Agriculture and Animal Resources (MINAGRI) between 2020 and 2022. The project was meant to address the capacity constraints that were hindering the effective coordination of NDC implementation by MoE. The project has substantially strengthened the capacity of MoE for the overall coordination of NDC implementation, while the capacity of MINAGRI has been strengthened to oversee agriculture-related NDC priorities including investment in low-carbon and climate-resilient agriculture. The project has indeed enhanced institutional strengthening including augmenting the results-based monitoring and evaluation (RBM&E) for the environment and natural resources sector which now comprehensively covers NDC, SDG and gender-related indicators for improved reporting and knowledge sharing among stakeholders. Institutional capacities have also been built regarding feasibility study on climate budget tagging that, once completed, would enhance tracking of climate financial flows from domestic and foreign sources; resource mobilization and

gender mainstreaming of climate change mitigation and adaptation actions in light of Rwanda's enhanced NDCs of 2020. By doing so, the project has indeed fostered cooperation, ownership and joint implementation of NDC interventions. The best practices piloted in agriculture have not only expanded production, generated income and created employment but also raised knowledge and awareness of low-carbon and climate-resilient agriculture practices among farmers and the private sector.

8.2. Recommendations

Based on the findings of the evaluation, and reflecting the views of the various stakeholders that were consulted during the evaluation exercise, the following recommendations were provided to improve the design and implementation of future phases of the NDC Project.

1. **Extensive stakeholder engagement in project design and allocation of sufficient human resources.** There is need for an extensive stakeholder engagement during the design of projects coupled with assigning dedicated personnel to support in implementation of the project's strategic interventions and activities. This requires UNDP and the partner institutions to convene and comprehensively discuss human resource requirements commensurate with the intended activities and identify contributing staff from various institutions for the effective delivery of the respective interventions.
2. **Refresher training for selected topics to be delivered physically for greater internalization of the subject matter.** Refresher training is required for sector experts to internalize key concepts on climate change, NDCs, MRV, tracking of climate financial flows, data collection and reporting and other important topics. Training sessions should not only target technical specialists like planners and budget officers but also policy makers to comprehensively raise knowledge and awareness as well as ensure policy support and buy-in for the various interventions. For some capacity building sessions that happened online, it was quite difficult for participants to internalize the subject matter. Therefore, whenever an opportunity emerges for refresher training, it is strongly recommended that the physical option be considered so as to improve learning experiences and create greater learning impacts for beneficiaries. This recommendation is a joint responsibility of UNDP,

MoE and MINAGRI to agree on the areas where refresher training is needed as well as timing and the delivery modalities.

3. **Scale up best practices in agriculture and support more best practices in other sectors.**

Building on the success stories of piloted best practices in agriculture, discussions with stakeholders revealed a critical need to expand the scale of financial and technical support. For hydroponic farming methods, increasing the amount of funding per project would increase the chances of production expansion while for agri-insurance, providing coverage for other activities along the farming value chain besides production would enhance resilience of different stages of the farmers' operations. Additionally, it would be great to pilot and scale up several best practices that contribute to the realization of NDCs across other sectors besides agriculture, which UNDP and MoE could jointly determine in consultation with key stakeholders in the respective sectors.

4. **Include specific outputs for the private sector in project design to foster ownership.**

The private sector needs to be supported to fulfil their responsibility in implementing NDCs. In this regard, it would be helpful for future project phases to include a specific output targeting the private sector. This could indeed raise knowledge and awareness of climate change and NDCs and guide the sector players in their efforts to contribute towards the realization of NDC targets. Working with MoE, the Private sector Federation and other relevant stakeholders, UNDP would consider identifying opportunities for the private sector to meaningfully contribute towards NDC implementation and hence set outputs and targets along with guidelines on doing the same.

5. **Work with local government authorities for decentralized project implementation.**

For more effective and decentralized implementation, the project ought to work with local governments like districts and sectors in addition to central government. Integration of NDC milestones into the performance contracts of local authorities could indeed enhance ownership and accelerate NDC implementation and local levels. Once the CBT system is operationalized, there is need to roll it out in district budgets as well in addition to central government budgets. Implementing these decentralization recommendations requires joint efforts by UNDP, MoE, MINECOFIN, the Ministry of Local Government (MINALOC) and local government entities like districts and sectors.

References

- Government of Rwanda, Ministry of Environment. (2019). National Environment and Climate Change Policy. Retrieved from <http://www.fonerwa.org/sites/default/files/2021-06/Rwanda%20National%20Environment%20and%20Climate%20Change%20Policy%202019.pdf>
- Government of Rwanda. (2011). Green Growth and Climate Resilience Strategy (GGCRS): National Strategy for Climate Change and Low-Carbon Development. Retrieved from https://www.rema.gov.rw/rema_doc/RGG&CRS%202011/Rwanda%20Green%20Growth%20Strategy%20FINAL%20high%20res.pdf
- Government of Rwanda. (2017). Seven-Year Government Programme: National Strategy for Transformation (NST1) 2017-2024. Retrieved from https://www.nirda.gov.rw/uploads/tx_dce/National_Strategy_For_Transformation_-_NST1-min.pdf
- Government of Rwanda. (2020). Updated Nationally determined Contribution. Retrieved from <https://www.ndcs.undp.org/content/dam/LECB/docs/pubs-reports/undp-ndcsp-rwanda-ndc2-2020.pdf?download>
- Government of Rwanda. (2020). Vision 2020. Retrieved from https://www.nirda.gov.rw/uploads/tx_dce/Vision_English_Version_2050_-_31_Dec_2020.pdf
- Government of Rwanda. (2020). Vision 2050. Retrieved from https://www.minecofin.gov.rw/fileadmin/user_upload/Minecofin/Publications/REPORTS/National_Development_Planning_and_Research/Vision_2050/English-Vision_2050_Abridged_version_WEB_Final.pdf
- Ministry of Agriculture and Animal Resources (MINAGRI). (2018). Strategic Plan for Agriculture Transformation 2018-2024. Government of Rwanda, Kigali, Rwanda. Retrieved from https://www.minagri.gov.rw/fileadmin/user_upload/Minagri/Publications/Policies_and_strategies/PSTA4_Rwanda_Strategic_Plan_for_Agriculture_Transformation_2018.pdf
- UNFCCC – United Nations Framework Convention on Climate Change. (2015). Paris Agreement. Retrieved from https://unfccc.int/sites/default/files/english_paris_agreement.pdf
- United Nations Evaluation Group (UNEG). (2016). Norms and Standards for Evaluation. Retrieved from <http://www.unevaluation.org/document/detail/1914>

ANNEXES

Annex 1: Contact list of respondents from KIIs for NDC Project Evaluation

S/N	Institution	Name of respondent	Position	E-mail address	Phone number
1	UNDP	Uwimana Immaculee	Focal Point	immaculee.uwimana@undp.org	0730772830 0788781527
2	UNDP	Sabiiti Fred		fred.sabiti@undp.org	0788681314
3	MoE	Dusengimana Theophile	Focal Point	tdusengimana@environment.gov.rw	0788799280
4	MINAGRI	Niyonsenga Petra	Focal Point	pniyonsenga@minagri.gov.rw	0788951818
5	MINAGRI	Joseph Ntezimana Museruka	NDC Project Manager		0788846904
6	MINECOFIN	Kabandana Benjamin		benjamin.kabandana@minecofin.gov.rw	0787320377
7	Uruhimi Kagyeyo Ltd.	Tuyitegereze Benjamin	Operations Manager		0785356660
8	Uruhimi Kagyeyo Limited, Gicumbi	Irudukunda Jean de Dieu	Cooperative member		0788518992
9	Classic Farm Limited, Masaka	Uwineza Clementine	Representative and co-owner		0787202121
10	Germinate Rwanda, Bugesera	Karehe Doreen	Co-owner		0788211264

Annex 2: Hydroponic fodder production in Gicumbi as a step-by-step process



Source: Taken by author during field visit

Annex 3: Guiding questions for KIIs with UNDP

Respondent's name.....**Position**.....

Email.....**Phone number**.....

Evaluation criteria #2: Effectiveness

Q1	How did the project's design and implementation consider a human rights-based approach?
Q2	How many sectors have so far integrated NDC priorities in their annual plans? The plan was to have 10 sectors by 2022.
Q3	How far is the operationalization of climate-budget tagging (CBT) in private sector and civil society organizations?
Q4	How many people have so far benefitted from the various capacity building interventions (training, coaching and mentorship)?
Q5	What criteria were used to select project beneficiaries (for capacity building and financial support in scaling up best practices)?
Q6	Did the project generate any additional outputs or realize outcomes that were not mentioned in the results framework?
Q7	What were the key factors that enabled the realization of project objectives and achievement of planned outputs?
Q8	Highlight the main challenges to project implementation and how these were mitigated
Q9	What key lessons have been learnt throughout the project's implementation (based on success and/or failure scenarios)
Q10	If the NDC Project were to be extended, what remaining key issues would you suggest to be prioritized during the next phase?

Evaluation criterion #3: Efficiency

Q11	Which outputs or activities experienced the most critical deviation between planned budget and actual expenditure? Were the deviations justified and approved by the project steering committee (PSC)?
Q12	How did the project ensure value for money and implementation of project activities more efficiently compared to alternatives?

Evaluation criterion #4: Sustainability

Q13	Exit strategy: What plans are in place to ensure continued ownership by beneficiaries after the donor-funded project ends?
Q14	What measures have been put in place to ensure the sustainability of benefits created by the NDC Project after its completion?

Evaluation criterion #5: Impact

Q15	What overall difference has the project made in terms of NDC coordination and implementation capacity?
Q16	To what extent is the project likely to create long-term social, economic, technical and environmental changes for the beneficiary individual, communities and institutions?

Annex 4: Guiding questions for KIIs with Ministry of Environment

Respondent's name.....**Position**.....

Email.....**Phone number**.....

Evaluation criterion #1: Relevance

Q1 Prior to the NDC Project, what capacity limitations did MoE have regarding coordination of overall NDC implementation?

Evaluation criterion #2: Effectiveness

Q2 Was the inventory report on actions contributing to NDCs completed? How has it informed the implementation of NDCs?

Q3 Was capacity building delivered by qualified trainers and yield the intended results?

Q4 How effective were UNDP's coordination and stakeholder engagement mechanisms during project implementation?

Q5 What key factors enabled the realization of project objectives and achievement of planned outputs?

Q6 Highlight the main challenges that constrained project implementation and how these were mitigated

Q7 Please highlight any loopholes or weaknesses in the design and/or implementation of the NDC Project

Q8 What recommendations would you make to improve the design and implementation of future phases of the NDC Project?

Q9 What key lessons have been learnt throughout the project's implementation (based on success and/or failure scenarios)

Q10 If the NDC Project were to be extended, what issues or priorities would you suggest to be prioritized during the next phase?

Evaluation criterion #3: Efficiency

Q11 How did the activities implemented by MoE consider value for money compared to alternative approaches?

Q12 Please highlight some activities or outputs whose expenditure differed substantially from the planned budget. Was justification given and approval secured from the project steering committee (PSC)?

Evaluation criterion #4: Sustainability

Q13 What measures have been put in place to ensure the sustainability of benefits created by the NDC Project after its completion?

Q14 How is MoE and the private sector considering continued implementation of some activities of the project after its completion?

Evaluation criterion #5: Impact

Q15 How has the enhanced RBM&E so far contributed to improved tracking of NDC implementation across NDC priority sectors?

Q16 What improvements in MoE's coordination of NDC implementation can be directly attributed to the NDC Project?

Q17 To what extent is the project likely to create long-term social, economic, technical and environmental changes for the beneficiary individual, communities and institutions?

Annex 5: Guiding questions for KIIs with Ministry of Agriculture and Anima Resources

Respondent's name.....Position.....

Email.....Phone number.....

Evaluation criterion #1: Relevance	
Q1	Prior to the project, what capacity limitations did MINAGRI have regarding coordination of NDC implementation in Agriculture?
Evaluation criterion #2: Effectiveness	
Q2	Besides agri-insurance and fodder production using hydroponic methods, which other best practices were pilots or scaled up?
Q3	How far is the implementation of a roadmap to implement low-carbon and climate-resilient actions in agriculture? Why delayed?
Q4	By Q2 of 2022, 3 proposals for bankable climate-resilient agriculture projects were drafted. Were they completed? Why were they delayed? How many were successfully completed and how many have been linked to funding sources as planned?
Q5	What were the key factors that enabled the realization of project objectives and achievement of planned outputs?
Q6	Highlight the main challenges to project implementation and how these were mitigated
Q7	Please highlight any loopholes in the design and/or implementation of the NDC Project
Q8	How effective were UNDP's coordination and stakeholder engagement mechanisms during project implementation?
Q9	Was capacity building delivered by qualified trainers and yield the intended results?
Q10	What key lessons have been learnt throughout the project's implementation (based on success and/or failure scenarios)
Q11	If the NDC Project were to be extended, what key issues would you suggest to be prioritized during the next phase?
Q12	What recommendations would you make to improve the design and implementation of future phases of the NDC Project?
Evaluation criterion #3: Efficiency	
Q13	How did the activities implemented by MINAGRI consider value for money compared to alternative approaches?
Q14	Please highlight some instances where spending on activities differed substantially from the planned budget. Was justification given and approval secured from the project steering committee (PSC)?
Evaluation criterion #4: Sustainability	
Q15	What measures have been put in place to ensure the sustainability of benefits created by the NDC Project after its completion?
Q16	How is MINAGRI and the private sector considering continued implementation of some project activities after its completion?
Evaluation criterion #5: Impact	
Q17	To what extent has the NDC Project enhanced the capacity of MINAGRI to coordinate NDC implementation in agriculture?
Q18	How have the studies on climate-resilient actions, resource mobilization strategy and investment flows facilitated or attracted private investment in climate-resilient agriculture projects?

Q19	To what extent is the project likely to create long-term social, economic, technical and environmental changes for the beneficiary individual, communities and institutions?
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Annex 6: Guiding questions for KIIs with Ministry of Finance and Economic Planning

Respondent's name.....**Position**.....

Email.....**Phone number**.....

Evaluation criterion #1: Relevance	
Q1	Prior to the project, what capacity limitations did MINECOFIN have in tracking financial flows for NDC implementation?
Evaluation criterion #2: Effectiveness	
Q2	How far has MINECOFIN gone in operationalizing climate budget tagging (CBT) in national budgets? Any benefits so far?
Q3	In 2021, 4 districts were helped to pilot integration of NDC priorities in their development strategies? Are they implemented?
Q4	How many sectors have so far integrated NDC priorities in their annual plans? The plan was to have 10 sectors by 2022.
Q5	How effective were UNDP's coordination and stakeholder engagement mechanisms during project implementation?
Q6	What key factors enabled the realization of project objectives and achievement of planned outputs?
Q7	Highlight the main challenges to project implementation at MINECOFIN and how these were mitigated
Q8	What recommendations would you make to improve the design and implementation of future phases of the NDC Project?
Q9	If the NDC Project were to be extended, what key issues or priorities would suggest to be worked on during the next phase?
Evaluation criterion #3: Efficiency	
Q10	How did the activities implemented by or at MINECOFIN consider value for money compared to alternative approaches?
Q11	Please highlight some activities or outputs whose expenditure differed substantially from the planned budget. Was justification given and approval secured from the project steering committee (PSC)?
Evaluation criterion #4: Sustainability	
Q12	How will MINECOFIN ensure the financial flow tracking system continues to operate after the NDC Project ends?
Evaluation criterion #5: Impact	
Q13	Is the system to track financial flows operational? To what extent has it enhanced the consistency of NDC budget statements and sustainable financing? Any other benefits or impacts created by the system so far?
Q14	To what extent is the project likely to create long-term social, economic, technical and environmental changes for the beneficiary individual, communities and institutions?