



INITIATIVE FOR CLIMATE ACTION TRANSPARENCY – ICAT UGANDA
Expansion of the National GHG Inventory Management
System and Operationalization of NDC Tracking
Framework

Project no.: MoWE/CONS/2022-2023/00024

Consultancy Services for Development and Implementation of a Nationally Determined Contribution (NDC) Tracking and Monitoring Framework for Transport and Waste Sector Policies and Measures

Workshop for the Validation of the Roadmap for implementation of the NDC Tracking Framework in the Transport and Waste sectors

Report

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Abbreviations

BFP	Budget Framework Paper
BOD	Biochemical Oxygen Demand ²¹
CAA	Civil Aviation Authority
CCD	Climate Change Department
CDM	Clean Development Mechanism (under the UNFCCC's Kyoto Protocol)
CFU-MoFPED	Climate Finance Unit- Ministry of Finance, Planning and Economic Development
DAC	Development Assistance Committee
DLG	District Local Government
DWRM	Directorate of Water Resources Management
ELMIS	Environmental Licensing and Management Information System
GHG	Greenhouse Gas
GHGI	Greenhouse Gas Inventory
GHGMI	Greenhouse Gas Management Institute
GKMA	Greater Kampala Metropolitan Area
GLASS	UN Water Global Analysis and Assessment of Sanitation and Drinking Water Survey
ICAT	Initiative for Climate Action Transparency
iMRV	Integrated Monitoring Reporting and Verification
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
KCCA	Kampala Capital City Authority
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MoH	Ministry of Health
MoLG	Ministry of Local Government
MoLHUD	Ministry of Lands, Housing and Urban Development
MoTIC	Ministry of Trade, Industry and Cooperatives

MoWT	Ministry of Works and Transport
MEMD	Ministry of Energy and Mineral Development
MRV	Monitoring Reporting and Verification
MoLG	Ministry of Local Government
MoWT	Ministry of Works and Transport
MtCO ₂ e	Metric tons of carbon dioxide equivalent
MWE	Ministry of Water and Environment
MWE-CCD	Ministry of Water and Environment, Climate Change Department
NAMA	Nationally Appropriate Mitigation Action
NEMA	National Environment Management Authority
NDAs	National Designated Authorities
NDC	Nationally Determined Contribution
NDP	National Development Plan
NEMA	National Environment Management Authority
NIE	NAMA Implementing Entity
NMT	Non-Motorised Transport
NWSC	National Water and Sewerage Corporation
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OPM	Office of the Prime Minister
RGCs	Rural Growth Centres
SMART	Specific, Measurable, Achievable, Realistic, Time-bound
SDG	Sustainable Development Goal
SGR	Standard Gauge Railway
SIP	Strategic Implementation Plan
STs	Small Towns
UBOS	Uganda Bureau of Statistics
URC	Uganda Railways Corporation
URF	Uganda Road Fund

UNRA	Uganda National Roads Authority
UNICEF	United Nations Children’s Fund
USMA	Uganda Sugar Manufacturers’ Association
WESIP	Water and Environment Sector Investment Plan

1 Introduction

1.1 Project Background

The Government of Uganda, through the Ministry of Water and Environment - Climate Change Department (MWE-CCD) received financing from the Initiative for Climate Action Transparency (ICAT) through the United Nations Office for Project Services (UNOPS). Part of these funds have been earmarked for the development of a Nationally Determined Contribution (NDC) Tracking and Monitoring Framework for Transport and Waste Sector Policies. The project's main objective is to strengthen Uganda's capacity to expand its National Greenhouse Gas (GHG) Inventory Management System and operationalize an NDC tracking framework, allowing the country to track progress towards its NDC targets under the 2015 Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC).

The primary aim of the Paris Agreement is to hold "the increase in global average temperature to well below 2°C above pre-industrial levels" and to pursue measures "to limit the temperature increase to 1.5°C above pre-industrial levels" (UNFCCC, 2015). To achieve this goal, each country is required to develop and implement its national climate action plan, known as NDC, with specific targets and actions to reduce greenhouse gas (GHG) emissions and adaptation measures to the impacts of climate change. Uganda, as a party to the Paris Agreement, filed its Intended NDC (INDC) in October 2015, its first NDC in September 2016 and its Updated Nationally Determined Contribution in September 2022, in accordance with Article 4 of the Paris Agreement.

Achieving the collective target set by the Paris Agreement (PA) relies on the effective implementation of consecutive and increasingly ambitious NDCs. Regular tracking of progress toward implementing and achieving each NDC is a key step in assuring effectiveness. This regular tracking is needed to identify implementation gaps and needs for achieving NDC targets.

A crucial stage in the monitoring and tracking of NDC actions, is the implementation of a tracking framework, which is detailed in this roadmap report. The roadmap highlights the importance of data collection and analysis in tracking NDC actions and identifies the key data sources and gaps in the transport and waste sectors. It also outlines the institutional arrangements necessary for effective data collection and analysis, including the roles and responsibilities of various institutions to be involved in the process.

1.2 Objectives of the Workshop

The purpose of the validation workshop, held on 26th September 2024 at Rider Hotel in Mukono, was to review the Roadmap for the Implementation of Uganda’s NDC Tracking Framework for the Transport and Waste Sectors. The identified key stakeholders for the Waste and Transport sector were invited to specifically critique the proposed roadmap, the tracking framework and the associated data collection templates for the two sectors. The stakeholders were invited to provide feedback to the structure of the Framework; the clarity, realism, and measurability of the performance indicators; identify any gaps in the data required or the proposed institutional arrangement, and in the monitoring systems; and propose solutions for effective implementation of the NDC Tracking Framework for the Waste and Transport sectors. The group work session employed a participatory approach with facilitated discussions based on guiding questions; data collection templates for both the adaptation and mitigation components NDC tracking framework; and the implementation roadmap, which were provided to the stakeholders before the workshop.

The target audience included the identified key stakeholders for the two sectors, often doubling as the key MDAs identified as the main sources of data for the data required for the NDC tracking of the two sectors, including MWE, CCD, NWSC, NEMA, MoLG, MoWT, UNRA, MEMD, KCCA, and URA.

1.3 Purpose of the Report

While the primary objective of the workshop was to validate the draft roadmap, which outlines a structured approach for implementing the NDC tracking framework, this report serves to present the proceedings of the workshop. It includes documentation of the workshop agenda, a list of participants, detailed stakeholder feedback, and the conclusions drawn from the discussions. Additionally, it outlines how this feedback will be integrated to refine and enhance the roadmap, ensuring it effectively supports systematic monitoring of actions against NDC targets across the Transport and Waste sectors.

2 Stakeholder feedback

2.1 Transport Sector

During the validation workshop, stakeholders from the transport sector provided feedback on the proposed Roadmap for the Implementation of the NDC Tracking Framework. This feedback is integral to refining the roadmap, ensuring it is both practical and effective in guiding the sector towards achieving Uganda's NDC targets. Detailed feedback provided by the stakeholders is outlined below, highlighting key areas for improvement and specific recommendations for enhancing the roadmap's effectiveness:

i). Data duplication and synergies:

It was pointed out that multiple MDAs are currently collecting data relevant to the NDC Tracking Framework for the transport and waste sectors. In order to enhance efficiency and prevent redundancy, there is a need to establish a unified data management framework that ensures synergies between these entities. Such a unified data management system would enable seamless data integration, ensuring that the same data points are not entered multiple times by different entities. Implementing a unified data management framework will help avoid duplication and streamline the process of data collection, thereby improving the accuracy and reliability of the data inputs into the NDC Tracking Framework.

ii). Cost Implications:

One of the stakeholders recognized that the current roadmap lacks specific details regarding the costs associated with its operationalization. This omission poses a risk of the roadmap being well-conceived yet impractical if it remains unfunded and thus, only theoretical. It is crucial to consider and outline a budget that can be integrated within existing financial frameworks of the relevant MDAs. This consideration should assess whether the roadmap can be accommodated within current budget allocations or if additional resources will be necessary. Establishing clear financial plans will ensure the roadmap is actionable and sustainable.

iii). Work schedule adjustments:

It was highlighted that the scheduling of critical activities within the roadmap needs reconsideration, particularly the development of legal frameworks for sharing and reporting on NDC actions within the transport and waste sectors. These frameworks are currently slated for

the later stages of the implementation phase, presenting a significant risk. Since legal frameworks are crucial for facilitating the entire process, it is essential that they be prioritized and initiated at the forefront of the implementation. Moreover, because policy development and legislative processes can be extensively time-consuming, starting earlier will provide adequate time for thorough development, discussion, and adoption.

iv). Incorporation of the Energy Transition Plan:

A stakeholder from the MEMD raised a pertinent question regarding the alignment of the NDC Tracking Framework with the Energy Transition Plan. This plan emphasizes the strategic use of bio-energy to reduce the country's reliance on oil and gas. The concern highlighted was whether the tracking framework and its data templates currently include considerations for this shift towards bio-energy. It was asked whether the frameworks incorporate indicators and data collection strategies that reflect the goals of the Energy Transition Plan.

v). Fuel economy measurement:

It was also recommended that a revision in the unit of measurement for fuel economy used within the NDC Tracking Framework's data templates be done. The current format, which is expressed in kilometres per litre (km/L), was advised to be changed to litres per 100 kilometres (Litres/100km).

vi). Clarity of Indicators:

Feedback from the transport sector group discussion, appreciated the clarity and measurability of most indicators used in the transport sector NDC Tracking Framework. It was noted that the indicators provided are well-defined and measurable, which facilitates effective monitoring and evaluation of progress towards the NDC targets.

vii). Data Requirements:

The feedback from the transport sector group discussion highlighted the significant challenge of data scarcity within the transport sector, attributing this issue primarily to the multitude of stakeholders and the inadequate mechanisms for information sharing among institutions. To address these challenges, a structured approach to data collection and sharing was proposed. It was suggested that the MoWT should serve as the central source for sector data, with all relevant institutions required to submit their data to a designated focal person within MoWT.

For this to be effective, the CCD-MWE should formally communicate the specific data needs to MoWT. Subsequently, MoWT will coordinate with various transport sector institutions to appoint and brief focal persons responsible for supplying the necessary data for NDC tracking within the sector.

Additionally, concerns were raised about the lack of data on Bus Rapid Transit (BRT) systems, noting that political issues and protracted land acquisition processes have impeded the project.

viii). Institutional Arrangement:

It was highlighted during the discussion that the Ministry of Energy and Mineral Development (MEMD) plays a key role in providing energy balance data and fuel data, which is integral to the NDC Tracking Framework in the transport sector. Consequently, it was expressed that MEMD should be clearly included as a key party within the roadmap's institutional arrangements.

ix). Data recording/reporting periods:

It was expressed that the current annual data recording intervals in the data templates are insufficient for timely and effective monitoring. It was recommended a shift to quarterly data recording and reporting. This change would align the data collection schedule with the quarterly budgeting and accountability cycles of government institutions, facilitating more frequent data updates and improved synchronicity with governmental financial processes.

x). Capacity Building:

It was noted that while training is essential, the capacity building efforts for the NDC Tracking Framework should also extend to equipping the data entry personnel. It recommended that provisions for necessary equipment be clearly included to support effective data collection and management. This equipment should encompass laptops and other relevant technological gadgets that the data entry focal points in various MDAs require.

2.2 Waste Sector

This section summarizes the outcomes of the Waste Sector group work session at the validation workshop that was aimed at reviewing the Roadmap for the Implementation of Uganda's NDC Tracking Framework for the Waste sector. These Stakeholders provided critical feedback on the clarity and feasibility of the proposed indicators, data collection methods, institutional arrangements, and the linkage between the existing iMRV system and the developed NDC Tracking Framework. This section

provides a summary the key findings, comments and recommendations. A detailed breakdown of the feedback received from the stakeholders is capture in Annex IV. The consultant’s strategy for integrating stakeholder feedback into the framework and roadmap is also included in the same file.

The key feedback can be summarized in the following sub-categories:

i). Data collection Gaps and layout of the forms:

NEMA indicated that the data collection template for estimating the total waste disposed of, from which the amount of methane avoided is estimated, should record the volume of waste in cubic meters (m³) and the density in the two main seasons. It was also proposed to disaggregate the data for wastewater and for solid waste, for clarity. NWSC and NEMA also proposed to estimate the methane from faecal sludge digestion based on the kg CH₄/kg BOD rather than kCH₄/faecal sludge. For the total quantity of bagasse and the total electricity from bagasse, it was proposed to include MEMD and ERA as a key data source, in addition to USMA.

These proposals will be put into consideration in the revised NDC Tracking Framework and the Data Collection Templates.

ii). Institutional Arrangements for NDC Tracking in the Waste Sector:

The proposed institutional arrangement for the Waste Sector under the National GHGI, with NEMA as the lead institution, was viewed as realistic. However, stakeholders observed a potential risk posed by an overlap in the mandate of various Ministries, Departments, and Agencies that might hinder effective coordination of the waste sector by NEMA.

The consultants proposed a medium-term revision to legislation to ensure that NEMA is clearly appointed as the lead Agency for all waste data collection. In the short term, it was proposed for MWE to write to the returning officers of the key MDAs for NDC tracking, requesting then to appoint a focal person that would submit the relevant NDC tracking data/information to NEMA possibly through NEMA’s proposed ELMIS centralized web-based electronic system. The consultants have purposed to involve as many MDAs as possible to ensure that there’s an understanding of what would be required from the various MDAs.

iii). Capacity Building:

Capacity building of the key MDA staff responsible for generating the data for NDC tracking of both the transport and waste sectors will be crucial for the successful implementation of the NDC

Tracking Framework. The scope of capacity building should be expanded to include; relevant staff data management skills, provision of hardware equipment like laptops; and financial compensation for time spent on these data collection exercises which are mostly add-ons to their primary roles and responsibilities.

CCD informed participants about an upcoming Capacity building workshop aimed at training stakeholders on how to utilize the developed data collection templates. This hands-on workshop will target personnel from the identified MDA data sources. CCD agreed to provide the concerned MDAs with sufficient time to familiarize themselves with the tools, prior to the workshop. Subsequently, periodic workshops will be organized to ensure continuous capacity building of the relevant stakeholders.

3 Integration of Stakeholder Feedback

3.1 Transport Sector

This section outlines how feedback from stakeholders, gathered during the validation workshop, has been incorporated into the roadmap for the NDC Tracking Framework in the Transport Sector. Stakeholder input is vital for ensuring that the framework is not only comprehensive and practical but also reflects the specific needs and realities of the transport sector. The following details demonstrate the adjustments made to the roadmap in response to the insights and recommendations provided by the stakeholders.

i). Data duplication and synergies:

In response to concerns raised about data duplication across various MDAs, the roadmap includes establishing a centralized data collection and sharing platform. This platform will be managed by the MoWT, which will serve as the central hub for all data related to the NDC Tracking Framework. By centralizing data collection, MoWT will ensure that there is no duplication of roles or data entries. Each MDA will appoint focal persons responsible for data provision, and MoWT will coordinate these efforts to streamline the process and maintain data integrity across all channels.

ii). Cost Implications:

A collaborative approach has been planned to address this cost consideration gap. The Consultant, together with CCD, will initiate discussions with the project funder-ICAT/UNOPS, to explore potential funding opportunities. These discussions will focus on outlining the financial resources necessary for implementation and determining whether these can be included as a priority in the next funding call.

iii). Work schedule adjustments:

In line with this, significant adjustments have been made to the work schedule. Key activities, such as the development of legal frameworks for sharing and reporting on NDC actions related to the transport sector, have been rescheduled to commence earlier in the project timeline. This strategic change ensures that these critical tasks begin in 2025, allowing sufficient time for thorough development and implementation.

iv). Incorporation of the Energy Transition Plan:

The Transport sector NDC Tracking Framework and its data collection templates already include indicators for the volume of alternative fuels consumed and the development of alternative fuel infrastructure, such as the number of fuelling stations. These existing indicators ensure that the framework is aligned with the strategic elements of the Energy Transition Plan, supporting national goals for diversifying energy sources and reducing reliance on traditional fossil fuels or oil and gas.

v). Fuel economy measurement:

The units for measuring fuel efficiency within the NDC Tracking Framework have been updated to include both litres per 100 kilometres (L/100km) and kilometres per litre (km/L). This revision ensures that both standard units for representing fuel economy are utilized, accommodating various preferences and aligning with international reporting standards.

vi). Data Requirements:

It was agreed upon that MoWT will be the designated source for all sector-related data under the NDC Tracking Framework. This decision mandates that all relevant MDAs channel their data through a designated focal person at MoWT. Adopting this centralized approach allows MoWT to efficiently manage the influx of data and ensures its subsequent integration into the centralized data management platform. This will in turn increase on the data required for tracking NDC actions in the sector.

vii). Institutional Arrangement:

The MEMD has been formally recognized as a key stakeholder within the NDC Tracking Framework due to its pivotal role as the provider of energy balance and fuel data. In the revised institutional setup, MEMD has been specifically tasked with supplying this critical data directly to the Energy Task Force's QA/QC unit. This arrangement ensures that the data flows efficiently from the source to the point of analysis, enhancing the accuracy and reliability of the energy data used in NDC tracking.

viii). Data recording/reporting periods:

The data recording intervals within the NDC Tracking Framework's templates have been updated from annual to quarterly periods. This revision is aimed at enhancing the practicality and

efficiency of data collection. By capturing data more frequently, stakeholders can respond more swiftly to trends, adjust strategies in a timely manner, and ensure more continuous monitoring and evaluation. This change will also align better with the quarterly budgeting and reporting cycles of many government institutions, thereby facilitating a more integrated and seamless data flow.

ix). **Capacity Building:**

The capacity building needs within the roadmap has been expanded to address the technological needs of data entry personnel across various MDAs. It now includes specific recommendations for the provision of essential equipment, such as laptops and other relevant technological gadgets, that are necessary to facilitate efficient and accurate data entry. This enhancement ensures that all personnel involved in data handling are adequately equipped to perform their duties effectively.

3.2 Waste Sector

This section outlines how feedback from stakeholders of the waste sector has been incorporated into the roadmap for the NDC Tracking Framework.

- i). Stakeholders identified gaps in certain data sources and proposed that partnerships with local authorities should be developed to improve data availability. For example CCD was encouraged to liaise with NEMA and share the data collection templates, to ensure that provision can be made within ELMIS Waste data module, for capturing the relevant data for NDC tracking of the Waste sector. NEMA pledged to follow this up with the ELMIS developers, if CCD can provide them with the required information.
- ii). The scope of capacity building has been expanded to include; relevant staff data management skills; provision of hardware equipment like laptops; and financial compensation for time spent on these data collection exercises which are mostly add-ons to their primary roles and responsibilities.

The detailed responses from the waste sector stakeholders are found in Annex IV.

4 Conclusions and Next Steps

This section presents the agreed-upon actions and next steps that emerged from the roadmap validation workshop. These include the following:

- i). Finalizing the roadmap and associate documents: The roadmap report, the NDC Tracking framework and the associated data collection templates will be updated by the consultant, incorporating stakeholder comments, and finalized by Mid November.
- ii). Quarterly input of data: The CCD to draft letter to Accounting Officers of the key MDA stakeholders, requesting them to appoint focal persons that will provide quarterly updates on key data points that support the NDC tracking process, particularly in the waste and transport sectors. The data will be collected in alignment with the developed data collection templates.
- iii). Integrate NDC data requirements into NEMA's ELMIS: Expedite the integration of NDC tracking requirements for the waste sector into NEMA's Environmental Licensing Management Information System (ELMIS) to ensure real-time data access and management. This will not only improve NDC tracking, but also support other reporting obligations such as the Biennial Transparency Report (BTR). CCD to liaise with NEMA to influence the design of the ELMIS to ensure that the waste module architecture allows for the input of all the data relevant for NDC tracking.
- iv). Capacity building: CCD to organize more training sessions for stakeholders to familiarize them with the process of inputting relevant data into the tracking framework. This training will be crucial in ensuring that stakeholders understand their role in the NDC tracking process and can efficiently provide the required data.
- v). Roles and Responsibilities: NEMA will take the lead in the collection of all waste data relevant for NDC tracking of the waste sector, while MoWT will take the lead in the collection of all data that is relevant for NDC tracking of the Transport sector.

Annexes

Annex I: Agenda - Validation Workshop for the Roadmap

Validation Workshop for the Implementation Roadmap of the NDC Tracking Framework in the Transport and Waste Sectors

Date: 26th September 2024, Venue: Rider Hotel-Mukono

Time (EAT)	Activity	Responsible person
09:00 – 09:30	Registration	CCD
09:30 – 09:40	Introductions	CCD
09:40 – 09:50	Welcome Remarks	CCD
09:50 – 11:00	<p>Overview of the Roadmap for NDC Tracking Framework for the Transport and Waste Sectors</p> <ul style="list-style-type: none"> • Requirements • Gaps and challenges 	MEIR
11:00 – 11:20	Tea/Coffee break	
11:00 – 12:20	Stakeholder feedback session: Open discussion for stakeholders to provide feedback and suggestions on the Roadmap	MEIR
12:20 – 13:00	<p>Group work: validating key elements of the roadmap</p> <ul style="list-style-type: none"> • Participants divide into groups (Waste and Transport) to validate and provide suggestions on how to refine the implementation plan. 	All
13:00 – 14:00	Lunch	
14:00 – 15:00	Group Presentations: Each group presents their feedback	All
15:00 – 15:30	Open Discussion on integrating feedback into the roadmap.	MEIR

Time (EAT)	Activity	Responsible person
15:30 – 15:50	Tea/coffee	
15:50 – 16:30	Continuation of the Discussion on integrating feedback into the roadmap.	MEIR
16:30 – 17:00	Way forward	CCD
17:00	Close of workshop	CCD

Annex III: Workshop Photography





Annex IV: Stakeholder Feedback-Waste Sector

Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
Clarity of Indicators for the Various NDC waste sector priority Mitigation and Adaptation Actions	Are the proposed Indicators for tracking the indicated NDC targets clear, realistic and quantifiable?	Stakeholders agreed that the indicators for both the Mitigation and Adaptation NDC actions were generally clear and quantifiable	The Consultant should adopt the IPCC Schema of sub-categorizing the waste sector by emission sources, i.e. solid waste disposal, wastewater treatment; biological treatment of solid waste and incineration; so as to better organize the worksheets of the validated indicators within the developed waste sector NDC tracking framework.	The Consultant adopted this as advise, although the IPCC categorization was already being used. The layout has been improved for clarity..



Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
	If not, could you indicate how these can be improved?		Adjustments of some measurement units or the specific data to be used to calculate some indicators, were proposed e.g., waste generation rates; quantifying waste handled at solid waste disposal facilities (Volume and density Vs. Mass);disaggregation wastewater and solid waste, for clarity	Some of the measurement units or data used to calculate various performance indicators have been adjusted as per the stakeholder's comments- to ensure that whatever is proposed is more realistically implementable on the ground. The Consultant adopted this as advised and indicated that the disaggregation of faecal sludge handling was covered under the adaptation component of the Framework under the indicator of "proportion of population with access to basic sanitation"
	Could you propose better indicators for tracking the different NDC targets?		Stakeholders requested CCD for more time to share the developed NDC Tracking framework with their colleagues within MDAs for the final comments	CCD will circulate the relevant documents to all the relevant stakeholders and MDAs.

Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
Data for populating the templates for the NDC tracking Framework.	Are the Data Collection templates for tracking NDC targets clear?	Data collection templates were considered clear but required more specificity on data sources	Enhance the templates with examples of data sources and collection methods	Links to web-based international statistical databases on indicators of SDG 6 in line with water, sanitation and hygiene, will be incorporated into the relevant data-collection worksheets
	Is the data required for the Data Collection Templates available?	Stakeholders identified gaps in certain data sources, particularly the data that's to be collected by local government actors. More data sources were provided and the Consultant was advised to be aware of similar data being under the custody of different and independent MDAs	Develop partnerships with local authorities to improve data availability	Representatives from the National Environment Management Authority (NEMA) informed the workshop participants about the Environment Licensing Management Information System (ELMIS)-a web-based data management platform run by NEMA. Data in this system will be collected nationwide, including from private sector actors. This will mitigate against the risk of inadequate data sources. However, even when the ELMIS is envisaged to be a comprehensive system, only few of its modules have been developed and are functional, that is, EIAs, Environmental



Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
				<p>Audits and Licensing of Waste handlers. The Waste data collection module is yet to be developed due to insufficient funds. CCD was encouraged to liaise with NEMA and share the data collection templates, to ensure that provision can be made within ELMIS Waste data module, for capturing the relevant data for NDC tracking of the Waste sector. NEMA pledged to follow this up with the ELMIS developers, if CCD can provide them with the required information.</p>



Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
	<p>Have we identified all the data sources, or do you see any gaps?</p>		<p>Within existing government structures, the Ministry of Water and Environment should formally write to the various Accounting/returning Officers in the key MDAs indicating the type of data that is required from them as per the indicator data collection templates. This will enable CCD to hit the ground running in the shortest time possible, rather than waiting for adjustments to the current legislation to enable the operationalization of the Institutional framework for NDC tracking.</p>	<p>CCD informed participants of the ongoing development of a Regulation under the National Climate Change Act that will require lead agencies to report data relevant to the development of the Biennial Transparency Reports (BTRs) in the context of the Enhanced Transparency Framework of the Paris Agreement.</p>

Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
	How can any data gaps identified be filled to ensure accurate tracking of the NDC?		Plan data collection exercises to be carried out on a quarterly basis, since GoU disburses funds for activities on a quarterly basis	For the same reporting period, each indicator's data collection template can be shared with multiple data sources, whose input can then be compared and harmonized by the institutions that will be charged with Waste sector data management QA/QC responsibility (NEMA), as reflected in the Institutional Arrangement
Institutional Arrangement	Is the proposed institutional arrangement for NDC Tracking realistic?	The proposed institutional arrangement under the National Greenhouse Gas (GHG) Inventory for the Waste Sector, with NEMA as the lead institution, was viewed as realistic.	The consultants proposed a medium-term revision to legislation to ensure that NEMA is clearly appointed as the lead Agency for all waste data collection. In the short term it was proposed for MWE to write to the returning officers of the key MDAs for NDC tracking, requesting them to appoint a focal person that would submit the relevant NDC tracking data/information to NEMA possibly through the ELMIS	This was noted. CCD accepted to follow this up, in consultation with the relevant stakeholders or MDAs.
	Are the roles and responsibilities for NDC tracking for the two sectors clear?	However Stakeholders observed a potential risk posed by an overlap in the mandate of various Ministries, Departments and Agencies that might hinder effective coordination of the waste sector by NEMA.		

Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
	<p>If not, how can this be improved?</p>	<p>it was proposed to include Ministry of Health (MoH) as a key stakeholder, especially for sanitation-related data in the waste sector.</p>	<p>centralized system. The consultants also have to involve as many MDAs as possible to mitigate against this</p>	
	<p>What Capacity building needs do you envisage for the various institutions involved in data collection , compilation and reporting</p>	<p>Clarification of roles and responsibilities is necessary to avoid overlap and ensure accountability</p>	<p>The scope of capacity building should be expanded to include; relevant staff data management skills; provision of hardware equipment like laptops; and financial compensation for time spent on these data collection exercises which are mostly add-ons to their primary roles and responsibilities</p>	<p>CCD informed participants about an upcoming Capacity building workshop on how to utilize the developed data collection templates. This hands-on workshop will target personnel from the identified data sources. CCD agreed to provide the concerned MDAs with sufficient time to familiarize themselves with the tools, prior to the workshop, which would also give ample time to the consultants to revise the tools, incorporating the stakeholder comments. Subsequently periodic workshops will be organized to</p>

Key Area	Guiding Questions	Waste Sector Stakeholder Query/Comment	Waste Sector Stakeholder Recommendation	Consultant's Response
				ensure continuous capacity building of the stakeholders.
MRV System	<p>Is the current iMRV system robust enough for tracking NDC targets alongside tracking the nationwide GHGs for the different sectors?</p> <p>Can you identify any Gaps? How can these be filled?</p>	Stakeholders were concerned about the manner of data integration across the different sectors in the iMRV	Stakeholders are unaware of the existing iMRV system	CCD informed participants that the iMRV isn't fully operational at the moment and is not yet available to the general public. Access to it at the moment is by prior authorization, hence the failure to be accessed external stakeholders. Once integration of the iMRV system and the NDC Tracking framework has been finalized, it is hoped that the key MDAs constituting the major data sources will be given special permissions to access and infill the relevant data, which will be validated by CCD or a selected focal person, before it can be published.
Other Areas	How can we ensure transparency and accountability in the NDC tracking and reporting process?	Provision for regular reporting mechanisms and stakeholder engagement processes	Ensure that the highest number of relevant stakeholders is involved from the inception of the project to ensure legitimacy	CCD agreed to follow this up

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	How can non-state actors including the private sector, civil society and NGOs be involved in the NDC tracking process?			
	Are there any sector specific challenges you envisage in implementing the NDC Tracking Framework? Can you propose any solutions?	Barriers such as lack of funding and resources were discussed	Participants proposed that the consultants cost the implementation framework and also develop a subsequent resource mobilization plan to guarantee funding and so, operationalization of the NDC Tracking Framework and the Road Map	The consultant indicated that in as much as costing the framework and the road map are crucial, this was outside the scope of their assignment. To which CCD agreed to follow this up with a possible assignment to cost it and estimate other resource requirements for its implementation.
	What financial barriers may exist for implementing the NDC Tracking Systems and how can these be overcome?			