

## Quality Control Report

### Sector

Production of charcoal supplied to households/communities/small and medium enterprises

### Name of DNA

Ministry of Water and Environment, Climate Change Department/DNA Secretariat  
P. O. Box 28119 Kampala, Uganda

### Primary Person Responsible for QC Procedures

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### Implementation Dates of QC Procedures

The QC procedures were implemented on 15<sup>th</sup> September, 2016

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## Implementation of QC procedures

The implementation follows the requirements of the QC procedures of the DNA of Uganda.

In the future, any corrective actions concerning data and information will be triggered by the database installed at the Ministry of Energy and Mineral Development (MEMD) -see last chapter.

## Check of the credibility of the data sources

1. The data for the threshold of the additionality and baseline were taken from the **National Charcoal Survey for Uganda 2015**. This survey was conducted by the MEMD under the Green Charcoal Project in 2015.

According to chapter 4. of this survey, the data were obtained following a sampling approach especially, the data about the technology of charcoal kilns are based on interviews of 2708 persons (communication by Felix Wamono, School of statistics, Makerere University, Kampala and consultant for sound sampling of this survey).

The key aspects of the sampling approach of this survey are quoted here:

#### *4.12 Data analysis and reporting*

*a) Development of Data Entry Screens Data entry screens were developed in EPIDATA and Excel for the purpose of data entry. The screens were accompanied by corresponding check programs and logical checks to minimise data entry errors.*

#### *b) Data Cleaning and Validation*

*To ensure accuracy of the data being captured, check programs with in-built logical checks and skip patterns were developed to minimize errors in data entry. In addition, simple descriptive statistics were used to identify and correct any missing cases, outliers and any other peculiarities in the data before data processing and analysis began. In addition, double data entry was used on a sample basis for purposes of validating the data and further eliminating any data entry errors. Computerized data validation bolstered the quality of data entered.*

*c) Data Management and Processing*

*The data was then exported to STATA for further management, processing and analysis. Appropriate value labels were assigned to all the categorical response variables to make the datasets user-friendly. In addition, labels were assigned to all variables in the datasets for ease of identification. Unique identifiers in each dataset were clearly spelt out to facilitate merging and linking of data in the different datasets to facilitate analysis.*

*d) Data Analysis*

*The analysis was largely descriptive using frequencies, totals, ratios, rates and graphs organized according to statistical regions. However, some bivariate and multivariate analyses were done to get a better understanding especially of the key variables. The results of the quantitative analysis were triangulated with the results of the qualitative analysis to get a better understanding of the results. Since, the analysis was based on survey data, appropriate weights were applied during the analysis. In addition, the analysis took into account the sampling design using the survey analysis options in STATA.*  
End of quotation.

2. The description of the improved kilns to be added to the positive list was taken from the project proposal. The estimate of the improved output (efficiency) of the added kilns were copied from the project proposal titled **“Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land Management Practices through an Integrated Approach”** herein called Green Charcoal Project.

## **Check of the accuracy of the data**

As the number of improved kilns are 0.1% of all kilns the level of confidence is very high.

## **Achieving the consistency in particular where multiple secondary data sources were used**

As only one secondary set of data was used consistency of data is not a topic of the update. However, the update data are compared for consistency with the study submitted as PSB0001 as follows:

The percentage of improved kilns of the recent survey is 0.1% only whereas the study of PSB0001 assumed that the percentage of improved kilns is less than 10%. The 10% is based on many publications but only one narrative about Uganda. Information about the statistical approach of those publications is not available. Thus, it is deemed that the data from the survey reflect the actual situation better.

## **Compliance with the “Standard for data coverage and validity of standardized baselines”**

As the standardized baseline does not contain any activity data the standard is not applicable.

## **Achieving completeness**

The survey was the most comprehensive study ever about charcoal production in Uganda.

The consultants claim that this survey covered all of Uganda even it focussed on four districts only. This assertion was justified as follows:

### *Study and sampling design*

*A quasi-cross-sectional research design was used given that this was a baseline for the national charcoal survey. The sample was selected from all the 10 statistical regions in order to achieve a representative scenario of charcoal consumption in the entire country. The design also ensured that both urban and rural households were represented in the sample.*

### *Focus Group Discussions*

*Focus Group Discussions (FGDs) were held with charcoal burners, charcoal transporters, charcoal vendors and charcoal consumers throughout the study districts. The purpose of the FGDs was to bring together a homogenous section of the community to discuss issues affecting them. One FGD per category of target group was carried out per district.*

### *Traffic survey*

*A charcoal traffic survey was conducted, aimed at estimating the quantity of charcoal supplied to Kampala district, given that the large percentage of charcoal is consumed in the district. Also, the survey was conducted in Gulu, Mbarara and Mbale districts as major districts for each of the Northern, Western and Eastern regions respectively.*

End of quotation.

## **Achieving transparency**

A public consultation was organized and took place on 4. August 2016. All relevant stakeholders have been invited and were almost all were present. The industrial charcoal producer Green Resources and New Forest Company representatives did not attend the meeting. However, they were included in the feedback round and useful comments from NFC were received. Further information about the public consultation can be retrieved from the minutes attached to this document.

## **Major issues and uncertainties identified during the QC procedures**

The specifications of the improved kilns are vague and partly narrative. The methane destruction potential has not been proven yet. It is planned that the Green Charcoal Project includes testing of improved kilns.

## **Major corrective actions taken during the QC procedures**

No corrective actions were required during the update process.

## **Justification of the conservativeness of the approaches taken during the QC procedures**

In addition to conservative measures taken into consideration when dealing with data gaps, the approach for SBL establishment follows the approved UNFCCC tool “Guidelines for the establishment of sector specific standardized baseline”.

## Summary of key findings and plan to improve the data quality in the future

The update of the Charcoal SB was not based on a survey or data collection. The update used secondary data collected as part of the Green Charcoal Project.

The data quality will be ensured by the Green Charcoal Project designed in the project documents follows:

*Data collection and improved coordination and enforcement of regulations governing the biomass energy sector, in particular those related to sustainable charcoal, with the outcome that functional biomass database is established and hosted at MEMD and published in Uganda Bureau of Standards reports and used for a sustainable charcoal NAMA.*

Date 02/06/2017

Signature of DNA

