# Plastic Waste Reduction Standard

# JOINT VALIDATION AND VERIFICATION OF "PLASTIC WASTE RECYCLING & IMPROVING WASTE PICKER LIVELIHOODS IN KENYA"


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| **Project Title** | Plastic Waste Recycling and Improving Waste Picker Livelihoods in Kenya |
| **Project ID** | 3838 |
| **Project Location** | Kenya |
| **Monitoring Period** | 01-01-2022 to 31-08-2022 |

[1] Arpita Raj worked on the project as Trainee Assessor till 14-June-2023

## Summary


- **A description of the project**

The activities of project entitled "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" is being performed by Taka Taka Solutions Ltd (TTS) in different part of Kenya. The project activities involve collection of plastic waste through different mechanism (viz., operating buyback centers at Thika, Dandora, Kitengla, Mlongo, Mombasa, MRF centers at Ehothia, Lusigetti and Mombasa as well as different industrial establishments) and mechanical recycling at Ehothia. The aim of the project is to recover and recycle additional plastic waste throughout the host country i.e., Kenya. The project involves in performing two different activities i.e., plastic waste collection at different locations in various parts of Kenya and mechanical recycling at one location, i.e., Ehothia, Kenya. Thus, as per the approach described for finding out the configurations of the projects in section 3.3 of the Plastic Waste Reduction Standard v1.0 /B01/, the project is a multiple instances of multiple project activities. Further, the project is a grouped plastic waste reduction activity as Taka Taka Solutions Ltd has plan for expansion of collection & recycling activities within the geographical boundaries of host country Kenya. The multiple instances of multiple project activities project designed Plastic Waste recycling as per the Verra's Plastic Waste Reduction Standard v1.0 /B01/, PWRM0001 v1.1 /B03/, and PWRM0002 v1.1 /B04/ respectively.

Taka Taka Solutions Ltd. is collecting the waste plastic from different locations of the Kenya and for the smooth functioning of the collection of the plastic waste they have established three different collection channels i.e., Buyback Centers (for sourcing of plastic waste from waste collectors), Material Recovery Facilities (for sourcing of plastic waste from commercial and residential establishments) and Industrial Sources (for sourcing of plastic waste from factories and manufacturing facilities). Each Buyback Center, MRF and industrial source acts as an instance of collection activity under the definition of grouped project as per VERRA Plastic Standard.

The waste being collected through different collection channels is being transported to the "Mechanical Recycling" facility established at Ehothia, Kenya for further processing. At the recycling facility the received plastic waste undergoes through different processes viz., sorting, shredding, and washing lines before converting into pellets.

Under this project the estimated annual average quantity of plastic waste collected through different channels is 20,691 tons and the estimated annual average quantity of plastic waste recycling is 11,888 TPA as per the consent order /13/.

The implementation of the project will help in income-generating via sustainable jobs in the field of plastic waste recovery and recycling for both in the formal sector (workers in recycling facility) and the informal sector (waste pickers).

- **A description of the validation and verification**

South Pole Carbon Asset Management Ltd. had appointed /08/ the VVB, Carbon Check (India) Private Limited on dated 12/10/2022, to perform an independent joint validation and verification of the project "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" to assess the process of the project against the requirements of Plastic Waste Reduction Standard v1.0 (Dated 10-February-2021) /B01/. The combined validation and verification were conducted through the desk review of the Plastic Program Joint PD&MR v1.0 /01/, corresponding estimated plastic credit spreadsheet /02/ and other relevant supporting documents made available by the project proponent to the validation and verification team as well as with the observation made and interviews with different stockholders involved in the project during onsite visit. This verification of project was conducted for the period of 01/01/2022 to 31/08/2022.

- **The purpose and scope of validation and verification**

**Purpose:**

Carbon Check (India) Private Limited (CCIPL) is engaged in the project with its clear objective to perform a thorough and independent assessment and validation of the project activities to assess the conformance of activities as per the requirements of the VERRA Plastic Program guide v1.0 /B02/.

The purpose of this joint validation and verification was to assess the conformance of the project components i.e., 1st to 13th PAI for collection activities and 1st PAI for Recycling activities with respect to the requirements set out in the Plastic Program rules for project. During the joint validation and verification process, the project components were assessed whether they compliance with the Plastic Waste Reduction Standard v1.0 (dated 10-February-2021) /B01/ rules and requirements as well as the related methodologies PWRM0001 v1.1 (dated 30-June-2022) /B03/ & PWRM0002 v1.1 (dated 30-June-2022) /B04/.

**Scope:**

The scope of the validation and verification includes an independent and objective review of the Plastic Project Joint Project Description and Monitoring report (Plastic Project JPD&MR) v1.0 dated 21/11/2022 /01/ against the relevant criteria and guidance laid down in the documents under the Plastic Program which includes the following: the Plastic Waste Reduction Standard v1.0, (dated 10-February-2021) /B01/, PWRM0001 v1.1 (dated 30-June-2022) /B03/ and PWRM0002 v1.1 (dated 30-June-2022) /B04/ This review was also conducted to assess the claims and assumptions made in the Plastic Project JPD&MR v1.0 /01/, without limitation provided by the project proponent.

- **The method and criteria used for validation and verification.**

The method and criteria used for Validation:

I. A desk review of the project description documents.
   - A review of data and information.
   - Cross checks between information provided in JPD&MR and information from sources with all necessary means without limitations to the information provided by the project proponent.

II. Onsite interviews with project stakeholders
   - Interviews with relevant stakeholders in host country with personnel having knowledge of the project development via telephone, email, or direct on-site visits.
   - Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project proponent.

III. Taking reference from information available in public domain related to projects or technologies like the projects under validation and review and based on that approved methodology had been applied for the appropriateness of formulae and accuracy of calculations.

IV. The resolution of outstanding issues and the issuance of the final Joint Validation & Verification report and opinion.

The method and criteria used for verification.

(a) <u>Desk review, involving:</u>

(i) Review of the data and information presented to verify their completeness.

(ii) Review of the monitoring plans and its methodology with giving focused attention on the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance as well as quality control procedures.

(iii) Evaluation of data management system, quality assurance and quality control procedures in the context of their influence on the generation and reporting of emission reductions.

(b) Onsite assessment involving:

(i) Assessment of the implementation and operation of the proposed Plastic Project activity as per the Plastic Project JPD&MR.

(ii) Verification of implemented monitoring plan as per the Plastic Project Joint PD & MR as well as applied baseline and monitoring methodology.

(iii) Review of information flows for generating, aggregating, and reporting the monitoring parameters.

(iv) Interview with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the Plastic Project Joint PD & MR.

(v) To cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources.

(vi) To check the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the Plastic Project Joint PD & MR and the selected methodology.

(vii) Review of calculations and assumptions made in determining the GHG data and emission reductions.

(viii) Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

- **The number of findings raised during validation and verification.**

  27 Corrective Action Request (CAR)

  11 Clarification Requests (CLs).

  All the raised findings have been successfully resolved by the PP.

- **Any uncertainties associated with the validation and verification.**

  There are no uncertainties associated with the joint validation & verification of the project activity. The validation and verification have been done with a reasonable level of assurance.

  The Plastic Project Joint PD&MR v1.0 /01/, estimated plastic credit spreadsheet /02/ along with the supporting documents provided are in line with all the Plastic Waste Reduction Standard v1.0 /B01/. The validation and verification team has detected no further uncertainties or quality restriction.

- **Summary of the validation and verification conclusions**

  Carbon Check (India) Private Ltd. concludes the validation and verification with a positive opinion that the Plastic Project “Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya” in Kenya as described in the Plastic Project Joint PD&MR v1.0, dated 21/11/2022 /01/, meets all applicable Plastic Project requirements, including those specified in the Plastic Waste Reduction Standard v1.0 (dated 10/02/2021) /B01/, relevant methodology, tools, and guidelines.

The baseline and the selected monitoring methodology PWRM0002 v1.1 (dated 30/06/2022) /B04/ is applicable to the project and correctly applied. Carbon Check (India) Private Ltd., therefore, requests the registration of the project as a Plastic Project.

The average annual cumulative estimated quantity for collection of plastic waste under project is 20,691 tons/year and the average annual estimated quantity for recycled plastic waste is 11,888tons/year.

In CCIPL's opinion, the plastic credits reported for the "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" in the Plastic Project Joint PD & MR v1.0, dated 22/11/2022 /01/ are fairly and correctly stated. CCIPL is therefore able to certify for the plastic credits of the project "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya". According to the risk-based assessment conducted during the validation and verification, we can state that the project is in line with what was described in the project description as well as also is in line with the VERRAs plastic standard and applicable methodologies for plastic waste reduction. The average annual plastic waste credits for 07 years are estimated as 20,691 tons/year and 11,888 tons/year for collection and recycling respectively.

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# 1 VALIDATION AND VERIFICATION PROCESS

## 1.1 Objective

South Pole Carbon Asset Management Ltd. had commissioned /08/ the VVB, Carbon Check (India) Private Limited on dated 12/10/2022 to perform validation and verification of the project "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" as per VERRA Plastic Waste Reduction Standard v1.0 /B01/ to ensure its eligibility for registration.

The objective under this validation and verification process is to:

- Validate the methodology adopted by the PP for the project through evaluating the different components of project design against the requirements of Plastic Standards criteria, applicable methodology (including monitoring system, additionality, stakeholder engagement, baselines, and social and environmental impacts), among other factors.
- Verify the data provided by PP for quantity of plastic waste collected and/or recycled under this project activity during the project's monitoring period through assessment and cross verification of the monitoring period reports available. The verification checks whether the volume of plastic collected/ recycled during the monitoring period adheres to the requirements outlined in the methodologies PWRM0001 v1.1 /B03/, PWRM0002 v1.1 /B04/, VERRA Plastic Waste Reduction Standard v1.0, /B01/ and project description.

The Validation of the methodology involved in the project will provide confidence to the project stakeholders for the quality of the project and Verification of the data generated during the monitoring period of the project will provide assurance to the project stakeholders for the quantity of plastic wastes collected and recycled for the generate plastic credits.

## 1.2 Scope and Criteria

The scope under the validation and verification process includes conducting a thorough, independent, and objective review of the project description, project design, baseline scenario, monitoring plan and quantification approaches of recycled waste and other relevant documentation as relates to the multiple instances of multiple project activities project to provide a conclusion with reasonable level of assurance to the project stakeholders for the quality of the project and the quantity of plastic waste collected and recycled within a specified time.

To provide reasonable level of assurance to the project stakeholders, Carbon Check India (Private) Limited had applied a risk-based approach for the validation and verification of the activities of the multiple instances of multiple project activities project using the Plastic Waste Reduction Standard v1.0 /B01/ as the principal criteria to complete this exercise.

During the validation and verification process of the project, Carbon Check India (Private) Limited Team had reviewed and evaluated the project documents i.e., Plastic Project Joint PD & MR v1.0 /01/ against

the relevant criteria of the Plastic Waste Reduction Standard v1.0 /B01/, including approved baseline and monitoring methodologies.

The validation and verification exercise were not intended to extend consulting towards the project proponents, but it may have provided input toward improvement of the overall multiple project activities through seeking for clarifications and/or proposing corrective actions.

The validation and verification exercise were conducted based on the following requirements as applicable to the project:

- Plastic Waste Reduction Standard v1.0 /B01/
- Plastic Program Guide v1.0 /B02/
- Plastic Waste Collection Methodology (PWRM) 0001 v1.1 /B03/
- Plastic Waste Recycling Methodology (PWRM) 0002 v1.1 /B04/
- ISO 14064-3:2019 guidelines

## 1.3 Level of Assurance

A reasonable level of assurance has been achieved for this joint validation and verification, adhering to the ISO 14064-3: 2019 guidelines v. /B06/ and the requirements of the VERRA plastic standard. In order to achieve reasonable level of assurance, CCIPL Team had conducted thorough review of supporting documents and checking the monitoring records & interviewing the employees & stakeholders involved in the project during onsite visit of project activities. To ensure a reasonable level of assurance, site visits were conducted at multiple locations i.e., Thika, Ehothia, Dandora, Lusigetti and Industrial Plant in Kenya, where the project proponent showcased their collection and recycling facilities as per the VVB teams' requirements. Interviews with employees and stakeholders were also conducted during the on-site visits.

## 1.4 Summary Description of the Project

The grouped project activity involves collection and mechanical recycling /13/ of different kinds of plastic waste viz. PP, HDPE, LDPE and PET in Kenya. PP is collecting the waste plastic from different locations of the Kenya and for the smooth functioning of the collection of the plastic waste they have established three different collection channels i.e., Buyback Centres (for sourcing of plastic waste from waste collectors), Material Recovery Facilities (for sourcing of plastic waste from commercial and residential establishments) and Industrial Sources (for sourcing of plastic waste from factories and manufacturing facilities). Further the waste collected at different locations in Kenya is being transported to their recycling facility at Ehothia for its recycling into granules.

In order to recycle the received plastic waste at Ehothia, Kenya, it is being feed to conveyer for sorting of different type of plastic waste material as per their nature and colour using trommel screen, ballistic separator and optical sorters followed by manual quality check of sorted material. The sorted material finally goes to the recycling area where it is being shredded and extruded to make granules, lumps or flakes as per the consumers' requirement.

The grouped project employs the Plastic Waste Collection and Plastic Waste Recycling Methodologies PWRM0001 v1.1 and PWRM0002 v1.1, respectively. The facility has been operating from the date 01/01/2022. This is the start date as per the production records and electricity bills /03/ for operation received from the concern authority by TTS.

As per the approach described for the finding out the configurations of the projects in the section 3.3 of the Plastic Waste Reduction Standard v1.0 /B01/, the projects consist of multiple project activity at different locations should be considered as multiple instances of multiple project activities. Thus, project entitled "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" is a “Multiple Instances of Multiple Project Activities,” as the project activity involves two activities i.e., collection and recycling as well as project activity at different locations i.e., collecting waste from thirteen different locations in Kenya/13/ and recycling it at Ehotia, Kenya.

The grouped project entitled "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" was initiated by Taka Taka Solutions Ltd. with recycling at one location in Kenya /13/ as well as collection of plastic waste through three different channels from various location in Kenya.

The details of the 1st PAI of recycling activity and all 13 PAIs for collection activities of the project are as follows:

1. The project commenced on 01/01/2022, with an initial capacity of 1,647 TPA at Ehothia (1st PAI of recycling activity) as outlined in table 5b under section 1.11 of JPD&MR v1.0. Subsequently, the capacity was augmented to 16,998 TPA by incorporating palletisation capabilities of 2,621 TPA, 3,744 TPA, and 8,986 TPA in September 2022, May 2023, and November 2023, respectively, according to the details in the mentioned table.The details of all 13 PAIs of collection activities are as given in table below:

| Collection Channal | Location | Latitude Longitude coordinates | Start Date |
|---|---|---|---|
| Buyback centre | Dandora | 1° 15' 1.26" S<br>36° 53' 40.884" E | 1/1/2022 |
| | Thika | 1° 4' 37.992" S<br>37° 7' 2.604" E | 1/1/2012 |
| | Kitengela | 1° 29' 35.88" S<br>36° 58' 2.928" E | 1/1/2022 |
| | Kisumu | 0° 8' 8.1492" S<br>34° 47' 45.6792" E | 7/1/2022 |
| | Mlolongo | 1° 23' 24.936" S<br>36° 58' 32.88" E | 9/1/2023 |
| | Nakuru | 0°16' 42.8"S<br>36°02' 25.3"E | 9/1/2023 |
| | Kakuma | 3° 46' 2.3808" S<br>34° 49' 20.8596" E | 6/1/2023 |
| | Mombasa | 3° 49' 32.1276" S<br>39° 40' 51.24" E | 1/1/2022 |

| | | | |
|---|---|---|---|
| Material Recovery Facility (MRF) | Ehothia | 1° 8' 26.2068" S<br>36° 43' 59.016" E | 1/1/2022 |
| | Lusigetti | 1° 16' 39.954 S<br>36° 36' 15.044 E | 1/1/2022 |
| | Mombasa | 4° 1' 24.5136" S,<br>39° 40' 52.86" E | 1/12/2023 |
| Industrial Client | IC-01* | 1° 21' 48.715",<br>36° 54"41.00" | 1/1/2022 |
| | IC-02* | 1° 14' 7.587",<br>36° 52' 30.652" | 1/1/2022 |

Taka Taka Solutions Ltd. is the owner of the project activity which was cross checked from Electricity bills for recycling activity Ehothia site /03/, NEMA Licenses /13/ and Business Permit issued by Kenyan Government /04/ of recycling facilities and interview conducted with stakeholders to confirm ownership over the collection activity as well. In addition, South Pole Carbon Asset Management Ltd. is the project proponent along with the Taka Taka Solutions Ltd. as well since it is the carbon finance party which was cross checked from agreement between Taka Taka Solutions Ltd. & South Pole Carbon Asset Management Ltd. /05/.

The project crediting period is 7 years, and the project has opportunity to renew twice, each time for seven years, up to 21 years total. The crediting period starts from 01/01/2022 /03/ to 31/12/2028, which was coincides from the starting date of the project activity and last for 7 years.

## 1.5 Audit Team Composition

**Validation and Verification team member**

| No. | Role | Type of resource | Last name | First name | Affiliation (e.g. name of central or other office of DOE or outsourced entity) | Involvement in | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Document review | On-site inspection | Interviews | Verification findings |
| 1 | Team Leader | IR | Anand | Amit | CCIPL | Y | Y | Y | Y |
| 2 | Technical Expert | ER | Shekhar | Sumant | CCIPL | Y | Y | Y | Y |
| 3 | Trainee Assessor | IR | Raj | Arpita[2] | CCIPL | Y | N | N | Y |
| 4 | Trainee Assessor | IR | Attaluri | Abhinav | CCIPL | Y | N | N | Y |
| 5 | Local Expert | ER | Okumu | Willis | CCIPL | Y | Y | Y | Y |

[2] Arpita Raj worked on the project as Trainee Assessor till 14-June-2023

Technical reviewer and approver of the joint validation & verification report

| No. | Role | Type of resource | Last name | First name | Affiliation (e.g. name of central or other office of DOE or outsourced entity) |
|---|---|---|---|---|---|
| 1. | Technical reviewer | IR | Kumar Singh | Vikash | CCIPL |
| 2. | Technical Expert to Technical Reviewer | IR | Rai | Bhuvaneshwar | CCIPL |
| 3. | Approver | IR | Suman | Priya | CCIPL |

## 1.6 Method and Criteria

The validation and verification were conduct according to the verification plan and conduct the evidence-gathering activities according to the evidence-gathering plan.

**A) Pre-execution phase:**

- strategic analysis to understand the activities and complexity of the project,
- risk assessment,
- evidence-gathering activity,
- preparation of site visit plan to gather information needed to reduce verification risk.
- Preparation of validation and verification plan This plan includes the scope of the site visit, VV team information, schedule and locations of the validation & Verification activity, evidence-gathering plan, validation and verification approaches, risk assessment, sampling approach and list of documents to be reviewed.

**B) Execution phase:**

To obtain the evidence during validation and verification following process were adopted:

- Review of the data and information mentioned in the Joint Project Document and Monitoring Report for the applicability of the applied methodology.
- Cross checks between information provided in the JPD&MR and information from sources with all necessary means without limitations to the information provided by the project proponent authenticity of the data and information.
- On-site visit,
  - Assessment of the implementation and operation of the Plastic project activity as per the Plastic Program Joint PD&MR v1.0 /01/.
  - Assessment of the compliance as per legal/ statuary requirements, stakeholder engagement and safeguard policy/ procedures related to the EHS, Labour, HR, anti-discrimination, feedback, and grievance.
  - Verification of implemented monitoring plan adherence to the Plastic Program Joint PD&MR as well as applied methodology.

- ❖ Review of information flows for generating, aggregating, and reporting the monitoring parameters.
- ❖ Interview with stakeholders to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the Joint PD&MR v1.0 /01/.
- ❖ To cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources.
- ❖ To check the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the Plastic Program Joint PD&MR and the selected methodology.
- ❖ Review of calculations and assumptions made in determining the plastic waste recycled.
- ❖ Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

During the onsite visit of the execution phase the conditions were considered by the validation and verification team are Location/region, Project activity, Quantity/Volumes of plastic waste recycled.

**C) Compilation:**

- ➢ Resolving any findings which have to be clarified/corrected prior to final VVB's conclusions.
- ➢ Release of final validation and verification report

The certificate is based on the assessment of the Plastic Project Joint PD&MR v1.0 /01/ undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews and stakeholder interviews, review of the applicable/applied methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/ as well as their underlying calculations of plastic credits spreadsheet /02/.

**Plastic Program Validation and Verification Time Frame:**

**A time frame envisaged for this assignment is as follows:**

| Milestone description | Time |
|---|---|
| Date of contract signing with the VVB | 12/10/2022 |
| Submission of On-site audit plan to Client | 28/12/2022 |
| Submission of NOVS for to VERRA | 23/01/2023 |
| Submission of requisite documents to the VVB by client | 13/02/2022 |
| On-site Audit | 20/02/2023 – 24/02/2023 |
| Submission of FVR to Client | 13/12/2023 |

## 1.7 Document Review

CCIPL conducted a comprehensive document review using standard auditing techniques, which including but not limited to document review and on-site interviews. The assessment also involved evaluating the applied methodology, its underlying monitoring parameters, and calculations to ensure the accuracy and reliability of the information provided. The validation and verification process primarily relied on scrutinizing the Plastic Project Joint PD&MR v1.0 /01/ and the supporting documentation to assess the project's quality and compliance.

**For validation, this process includes:**

- A review of data and information presented to verify completeness and consistency in accordance with Plastic Waste Reduction Standard v1.0 requirements.
- A review of the project description and monitoring methodology, paying particular attention to the applicability conditions of the methodology, baseline, and additionality related requirements
- A review of the monitoring plan and the project's compliance with relevant requirements of applied methodology PWRM0001 v1.1 /B03/ and PWRM0002 v1.1./B04/

**For verification, this process includes:**

- A review of data and information presented by the PP to verify their completeness.
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the competency of personnel performing the monitoring, and the QA/QC procedures, and
- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of plastic waste collection and recycling.

The Joint PD&MR v1.0; Dated: 22/11/2022 /01/ was reviewed by the VVB team and CCIPL requested the PP to present the supporting list of documents mentioned in the Validation and Verification plan shared with the PP. The received supporting information and documents were reviewed by VVB team and sane has been cross verified during the onsite visit through cross checking the monitoring records and conducting interviews with the stakeholders. Through the process of the validation and verification, the PD&MR v1.0; Dated: 22/1/2022 /01/, monitoring report and the supporting documents was evaluated to confirm the actions taken by the PP against the CARs and CLs issued by the VVB team.

The list of documents referred during this verification has been provided in Appendix-1.

## 1.8 Interviews

| Sr. No | Date | Name | Organization | Designation | Topic |
|---|---|---|---|---|---|
| 1 | 20-02-2023 | Daniel Luis Paffenholz | TTSL/Project Proponent | Founder/ CEO | • Monitoring & Reporting Documentation<br>• Quality Assurance Management<br>• Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |
| 2 | 21-02-2023 | Dominic Juma | TTSL/Thika Buyback Center | Employee | • Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |
| 3 | 21-02-2023 | Karen Muthoni | TTSL/Thika Buyback center | Employee | • Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |
| 4 | 21-02-2023 | Agnes Muholo | TTSL/Thika | Employee | • Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |
| 5 | 22-02-2023 | John Kiarie | TTSL/Dandora Buyback center | Employee | • Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |
| 6 | 22-02-2023 | Phyllis Waithera | Waste Collector | Waste Aggregator | • Monitoring & Reporting Documentation<br>• Compliance with applicable health & safety and labor laws<br>Social and Environmental Impacts |
| 7 | 23-02-2023 | Lilian Nafula | TTSL/Factory | Employee | • Monitoring & Reporting Documentation<br>• Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |
| 8 | 23-02-2023 | Joseph Njuguna | TTSL/Lusiggeti MRF | Employee | • Compliance with applicable health & safety and labor laws<br>• Social and Environmental Impacts |

Out of the 13 collection centers,

- 08 are the Buyback center where general public use to deposit their waste,
- 03 are the MRF centers where waste collector/aggregator is used to supply the waste material.
- 02 are the industrial establishment from where PP use to collect and transport the material to recycling facility.

In order to ensure the sufficient representation of all the three categories of the collection center, following personals were interviewed:

- 01 waste collector/aggregator was interviewed as they are involved in the supply of material to the 03 MRF facilities only,
- 03 employes involved in operation of 08 buyback centers as at these centers general public use to deposit their used plastic under by back scheme run by PP. Although we interviewed the general public during the onsite visit, their names are not included as they are not willing to disclose their identity.
- 01 employs involved in the handling i.e., collection & transportation of the industrial waste as they are responsible for material being collected from 02 industrial establishments.

## 1.9 Site Inspections

On-site inspections were carried out between February 20th, 2023, to February 23rd, 2023, to accomplish the following objectives.

- Determine the physical project location as well as establish the status of the project as per the Plastic Project Joint PD&MR v1.0; Dated: 21/11/2022 /01/, conduct interviews with relevant personnel including staff members to determine that the existing scenario is consistent with the baseline information as provided by the Project Proponent (PP)
- Cross-check the information provided by PP in the Plastic Project Joint PD&MR v1.0; Dated: 21/11/2022 /01/ with other relevant data sources.
- Review appropriateness of the calculations and assumptions made, if any, regarding determining the volumes of plastic waste collected and recycled and the corresponding plastic credits claimed.

| Date | Site(s) Inspected | Nature of Operations |
|---|---|---|
| 21/02/2023 | Thika | Buyback centre |
| 21/02/2023 | Ehothia | Recycling Plant |
| 22/02/2023 | Dandora | Buyback |
| 22/02/2023 | Lusigetti | MRF |
| 23/02/2023 | Industrial Plant | Collection - Industrial |

## 1.10 Public Comments

The public commenting period held from 30/11/2022 to 30/12/2022. There were no public comments received during the public comments period. Nonetheless, it was noted that a stakeholder consultation meeting was conducted on August 5th, 2022, in accordance with the requirements of Section 3.13 of the Plastic Waste Reduction Standard Version 1.0. This information is as provided under section 2.1.3 of the Plastic Project JPD&MR v1.0 */01/*.

## 1.11 Resolution of Findings

In this section findings of the joint validation & verification of the project activity including, but are not limited to, document review, assessments and onsite interviews are summarized. Material discrepancies identified during the validation are addressed either as CARs, CLs or FARs.

Material discrepancies identified during the validation are addressed either as CARs, CLs or FARs.

- **Clarification requests (CLs):** Project reporting lacks transparency and further information is needed to determine if a material discrepancy is present.
- **Corrective action requests (CARs):** The VVB has identified a material discrepancy or non-conformance that the project proponent must address.

The VVB on every issue raised during the validation process has used the table format given below:

| | | | | |
|---|---|---|---|---|
| **CL/CAR/FAR ID** | | **Section no.** | | **Date:** DD/MM/YYYY |
| **Description of CL/CAR** | | | | |
| | | | | |
| **Project participant response** | | | | **Date:** DD/MM/YYYY |
| | | | | |
| **Documentation provided by project participant** | | | | |
| | | | | |
| **VVB assessment** | | | | **Date:** DD/MM/YYYY |
| | | | | |

A total of 27 CARs & 11 CLs were identified and raised during this joint validation & verification by the Carbon Check (India) Private Limited team, all of which have been resolved by the PP.

Please refer to Appendix-3 below for the details of the CARs/CLs and their closure.

### 1.11.1 Forward Action Requests

Forward Action Request (FAR) is to be raised when the monitoring and reporting require attention and/or adjustment for the next verification period.

01 FAR has been raised during this joint periodic validation and verification.

Please refer to Appendix-3 below for the details of the FAR.

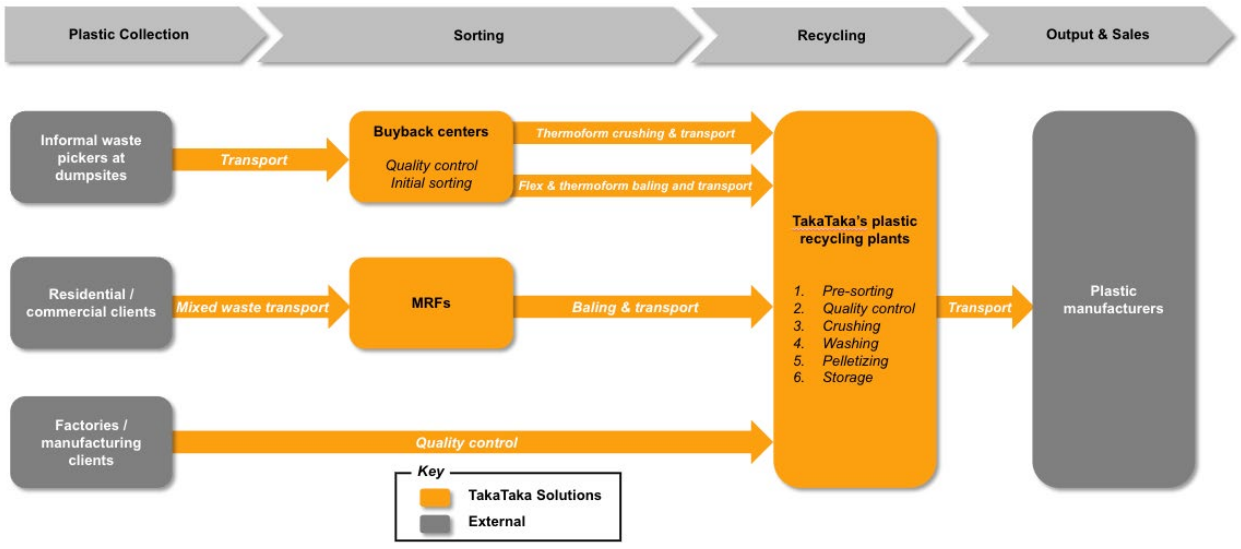
# 2 VALIDATION FINDINGS

## 2.1 Project Details

### 2.1.1 Description of the Project Activity

The project is a grouped project as indicated in section 1.3 of the JPD&MR v1.0 Dated: 21/11/2022 /01/, the project activity involves collection /13/ and mechanical recycling /13 of plastic wastes in Kenya (Section 3.4 of the JPD&MR v1.0 Dated: /01/. Taka Taka Solutions Limited (hereinafter referred to as TTS) is the Project Proponent (PP) of the project "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya", which was verified through the documents /13/ provided by PP related to approvals received for operations from relevant authorities /13/. The grouped project activities are within the scope of the Plastic Program as defined under section 2.1.2 of the Plastic Waste Reduction Standard v1.0 /B01/.

As per the activities described under 1.11 of the Plastic project JPD&MR v1.0 /01/, grouped project entitled "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" initiated by TTS involves two activities i.e., collection and recycling of plastic waste viz. PP, HDPE, LDPE and PET in Kenya. Under this project TTS have established one (01) recycling facility at Ehothia which is involved in mechanical recycling of plastic waste and referred as 1st PAI for recycling activity as well as collecting plastic waste from thirteen (13) different locations through three different channels i.e., Buyback Centres, Material Recovery Facility (MRF) & Industrial Collection Centres in various City of Kenya and referred as 1st to 13th PAIs for collection activity (Section 1.3 of the JPD&MR v1.0 /01/).



The details of the 1st PAI of recycling activity and all 13 PAIs for collection activities of the project are as follows:

1. Initially project was started on 01/01/2022 with an installed capacity of 1,647 TPA at Ehothia (1st PAI of recycling activity) /03/ and subsequently it was increased to 16,998 TPA till November 2023 by adding palletisation capacity of 2,621 TPA, 3,744 TPA and 8,986 TPA in September 2022, May 2023 and November 2023 respectively.

2. The details of all 13 PAIs of collection activities are as given in table below:

| Collection Channal | Location | Latitude Longitude coordinates | Start Date |
|---|---|---|---|
| Buyback centre | Dandora | 1° 15' 1.26" S<br>36° 53' 40.884" E | 1/1/2022 |
| | Thika | 1° 4' 37.992" S<br>37° 7' 2.604" E | 1/1/2022 |
| | Kitengela | 1° 29' 35.88" S<br>36° 58' 2.928" E | 1/1/2022 |
| | Kisumu | 0° 8' 8.1492" S<br>34° 47' 45.6792" E | 7/1/2022 |
| | Mlolongo | 1° 23' 24.936" S<br>36° 58' 32.88" E | 9/1/2023 |
| | Nakuru | 0°16' 42.8"S<br>36°02' 25.3"E | 9/1/2023 |
| | Kakuma | 3° 46' 2.3808" S<br>34° 49' 20.8596" E | 6/1/2023 |
| | Mombasa | 3° 49' 32.1276" S<br>39° 40' 51.24" E | 1/1/2022 |
| Material Recovery Facility (MRF) | Ehothia | 1° 8' 26.2068" S<br>36° 43' 59.016" E | 1/1/2022 |
| | Lusigetti | 1° 16' 39.954 S<br>36° 36' 15.044 E | 1/1/2022 |
| | Mombasa | 4° 1' 24.5136" S,<br>39° 40' 52.86" E | 1/12/2023 |
| Industrial Client | IC-01* | 1° 21’ 48.715”,<br>36° 54”41.00” | 1/1/2022 |
| | IC-02* | 1° 14’ 7.587”,<br>36° 52’ 30.652” | 1/1/2022 |

Under this project, PP is collecting the waste plastic from different locations /13/ of the Kenya and for the smooth functioning of the collection activity they have established three different collection channels i.e., Buyback Centres (for sourcing of plastic waste from waste collectors), /13/ Material Recovery Facilities (for sourcing of plastic waste from commercial and residential establishments) /13/ and Industrial Sources (for sourcing of plastic waste from factories and manufacturing facilities) /06/. After

collecting the waste of quantity, which is feasible for transportation at collection points, PP use to bring the waste to their recycling facility at Ehothia for further processing.

In order to recycle the received plastic waste, it is being feed to conveyer for sorting of different type of plastic waste material as per their nature and colour using trommel screen, ballistic separator and optical sorters followed by manual quality check of sorted material. The sorted material finally goes to the recycling area where it is being shredded and extruded to make granules, lumps or flakes as per the consumers' requirement.

The grouped project employs the Plastic Waste Collection and Plastic Waste Recycling Methodologies PWRM0001 v1.1 and PWRM0002 v1.1, respectively. The facility has been operating from the date 01/01/2022. This is the start date as per the consent order /13/ for operation received from the concern authority by TTS.

The project crediting period is 7 years, and the project has opportunity to renew twice, each time for seven years, up to 21 years total. The crediting period starts from 01/01/2022 to 31/12/2028 /03/, which was coincides from the starting date of the project activity and last for 7 years.

The completeness and accuracy of the joint project description and validation was validated through review of the documents provided by PP as well as on-site visit interviews stakeholders, involved in entire process at different stages to confirm the information mentioned in the Joint project description and monitoring report including involvement of South Pole Carbon Asset Management Ltd as the project consultant as per the project details.

After reviewing the Plastic Program JPD&MR v1.0 /01/ as well as documents provided by PP and interview conducted with stakeholders, VVB confirms that the information provided in the project description is well described and provided complete understanding of the project activity. Further, based on the observation made and interviews conducted with stakeholders during the on-site visit, of both collection points i.e., Buyback centre at Thika & Dandora, MRF at Lusigetti, Industrial and recycling facilities at Ehothia VVB confirms that the project has been implemented as described in the project description.

### 2.1.2 Project Type and Eligibility

It is mentioned in the section 1.2 of the Plastic Project Joint PD&MR v1.0 /01/, provided by PP, the project is eligible under the scope of the plastic program based on the following criteria:

a) Type of Plastic waste being managed under the project.

b) Activities being performed under the project.

c) Process involved in the project.

d) Demonstration that the project has not generated plastic waste primarily for the purpose of its subsequent collection and/or recycling.

During the validation and verification process, team reviewed the section 1.2 of the Plastic Project Joint PD&MR v1.0 /01/, as well as checking the monitoring records & interviewing the employees and stakeholders for cross verification of information during onsite audit. The findings outlined by VVB are as:

1. During the site visit and review of the tax invoices /06/ team observed that project activities involved in managing post-consumer plastic waste under the project activity. The materials being handled under the project are covered in the section 2.1.1 & Table 1 of Plastic Waste Reduction Standard V1.0 /B01/.
2. The review of documents tax invoice for purchase /06/ of waste as well as sale /06/ of recycled plastic and interviews conducted with stakeholders VVB observed that project involved in the collection of waste plastic and collected waste plastic is being recycled by the projects on their own. The activity involved under the project are covered in the section 2.1.2 of Plastic Waste Reduction Standard V1.0 /B01/.
3. The review of documents viz. approvals received from authorities /13/, equipment technical specifications and tax invoices /06/ confirms that at the project activity involved in collection, sorting and mechanical recycling of post-consumer plastic waste. The same was also observed during the site visit. The activities involved in the project are covered in the section 2.1.2 of Plastic Waste Reduction Standard V1.0.
4. The plastic waste materials are not being generated primarily for the purpose but are being collected through three different collection channels i.e., Buyback Centres (for sourcing of plastic waste from waste collectors), Material Recovery Facilities (for sourcing of plastic waste from commercial and residential establishments) and Industrial Sources (for sourcing of plastic waste from factories and manufacturing facilities). Which was confirmed by VVB through reviewing the documents Tax Invoice of purchased waste /06/ and interview conducted with stockholders during site visit.

Above observations made by VVB Team during validation and verification process, shows that the project compliance meeting with the project type and eligibility criteria laid down in requirements of VERRA Plastic Waste Reduction Standard v1.0.

### 2.1.3 Project Configuration

It is mentioned in the section 1.2 of the Plastic Project Joint PD&MR v1.0 /01/, the project configuration is “Grouped Project Activities,” as the project activity involves two different activities i.e., collection and recycling of plastic waste at different locations in Kenya and project has been configured to allow for future expansion and inclusion of new project activity instances subsequent to project validation. Under this project TTS have established one (01) recycling facility at Ehothia which is involved in mechanical recycling of plastic waste and referred as 1st PAI for recycling activity as well as collecting plastic waste from thirteen (13) different locations through three different channels i.e., Buyback Centres, Material Recovery Facility (MRF) & Industrial Collection Centres in various City of Kenya and referred as 1st to 13th PAIs for collection activity.

The details of the 1st PAI of recycling activity and all 13 PAIs for collection activities of the project are as follows:

1. As per the details provided in table 5b under section 1.11 of JPD&MR, initially project was started on 01/01/2022 with an installed capacity of 1,647 TPA at Ehothia (1st PAI of recycling activity) /08/ and PP had planned to increase the recycling capacity by adding palletisation capacity of 20,967 TPA by December 2023.

2. The details of all 13 PAIs of collection activities are as given in table below:

| Collection Channal | Location | Latitude Longitude coordinates | Start Date |
|---|---|---|---|
| Buyback centre | Dandora | 1° 15' 1.26" S<br>36° 53' 40.884" E | 1/1/2022 |
| | Thika | 1° 4' 37.992" S<br>37° 7' 2.604" E | 1/1/2022 |
| | Kitengela | 1° 29' 35.88" S<br>36° 58' 2.928" E | 1/1/2022 |
| | Kisumu | 0° 8' 8.1492" S<br>34° 47' 45.6792" E | 7/1/2022 |
| | Mlolongo | 1° 23' 24.936" S<br>36° 58' 32.88" E | 9/1/2023 |
| | Nakuru | 0°16' 42.8"S<br>36°02' 25.3"E | 9/1/2023 |
| | Kakuma | 3° 46' 2.3808" S<br>34° 49' 20.8596" E | 6/1/2023 |
| | Mombasa | 3° 49' 32.1276" S<br>39° 40' 51.24" E | 1/1/2022 |
| Material Recovery Facility (MRF) | Ehothia | 1° 8' 26.2068" S<br>36° 43' 59.016" E | 1/1/2022 |
| | Lusigetti | 1° 16' 39.954 S<br>36° 36' 15.044 E | 1/1/2022 |
| | Mombasa | 4° 1' 24.5136" S,<br>39° 40' 52.86" E | 1/12/2023 |
| Industrial Client | IC-01* | 1° 21’ 48.715”,<br>36° 54”41.00” | 1/1/2022 |
| | IC-02* | 1° 14’ 7.587”,<br>36° 52’ 30.652” | 1/1/2022 |

VVB team had crossed check the above statements through the verification of tax invoices /06/, different approvals received from concern authorities /13/ and commissioning certificates /08/ of the mechanical recycling of respective instance.

From the above observation made by the Validation and Verification team during the review of the documents as well as site visit, it can be concluded that project entitled "Improving waste collection and recycling services" is a “Grouped project activities,” as per the description made in the section 3.3 of the Plastic Waste Reduction Standard v1.0 /B01/.

**Eligibility criteria of the grouped project activity:**

The eligibility criteria have been provided clearly in section 1.3 of the Plastic Project Joint PD&MR v1.0 /01/, and then justification provided for inclusion of project activity instances as per Plastic Waste Reduction Standard v1.0 /B01/.

| Eligibility criteria | Required condition | Means of verification/supporting evidence for inclusion | VVB team assessment |
|---|---|---|---|
| Applicability Conditions | The project activity shall meet applicability conditions for the applied methodology or methodologies (PWRM0001 v1.1 and PWRM0002 v1.1) | Project activity shall demonstrate compliance with PWRM0001 v1.1 and PWRM0002 v1.1.<br><br>Section 3.2 of the Joint PD MR provides justification for the applicability criteria of the applied methodology PWRM0001 v1.1 | Review of the Documents /Annexure - 1/ provided by PP and on-site assessments by the VVB team, it is determined that the project activities to be included in the grouped project will meet the applicability conditions of PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/ as satisfactorily demonstrated in Section 3.2 of the Joint PD&MR v.1.0 /01/ |
| Geographical Area | The project activity shall be located within the geographical boundary of the grouped project | Project activity instances shall demonstrate that they are located within the geographical boundaries of Kenya.<br><br>The project activity geodetic coordinates/KML files | Observations made and interviews conducted with stakeholders during on-site visit assessments as well as review of project activity locations co-ordinates/KML files /07/ by the VVB team, it is established that the project activity instances are located in Kenya as satisfactorily demonstrated under Section 1.3.1 of the Joint PD&MR v.1.0 /01/ |
| Baseline Scenario | Project activity instances shall meet the baseline scenario definition and be determined in accordance with section 3.9 of the Plastic Standard and sections 6 of PWRM 0001 v1.1 and PWRM 0002 v1.1 methodologies. | Project activity instances shall demonstrate fulfilment of the definition of the baseline scenario as required under section 6 of both PWRM0001 v1.1 and PWRM0002 v1.1 methodology. | Review of the Documents /Annexure -1/ provided by PP and observations made as well as interviews conducted with stakeholders during on-site visits by the VVB team determined that the baseline scenario requirement is fulfilled as sufficiently demonstrated under Section 3.5 of the Joint PD&MR v.1.0 /01/ |

| | | | |
|---|---|---|---|
| Technology Type | The project activity instance shall use the technologies or measures specified in the Joint PD MR | Project activity instances shall demonstrate that they are activities that involve plastic waste collection and mechanical recycling technologies.<br><br>On-site visits and review of applicable documentation | The VVB team, through document review /Annexure - 1/ and on-site visits, established that the project activity involved in recycling at one location referred as 1st PAI for recycling activity and collection at 13 different locations wit in the project boundary referred as 1st to 13th PAI for collection activity. This criterion is fulfilled as demonstrated in Section 1.3.1 of the Joint PD&MR v.1.0 /01/ |
| Additionality | The project activity instances to be added as part of the grouped project shall demonstrate additionality consistent with the initial project instances as per the PWRM 0001v1.1 and PWRM 0002v1.1 methodology. | The project activity instance shall be demonstrated as additional by the following means;<br>a. There are no laws or regulations that enforce collection of plastic waste or the laws and regulations are not systematically enforced and non-compliance is widespread (>50%)<br>b. The collection/recycling activity is on the positive list<br>The penetration rate of the collection/recycling activity is <20% | On the basis of the review of the documents /Annexure - 1/ VVB team confirm that all the project activity instances have demonstrated additionality via regulatory surplus and penetration rate which is <20% in Kenya. This is demonstrated under section 3.6 of the Joint PD&MR v.1.0 /01/. This eligibility criterion has been fulfilled. |
| Start Date | Project activity instance start date shall be the same as or later than the grouped project start date | Project activity instance shall demonstrate that its start date is on or after 01/01/ 2022<br><br>Project commissioning records. | In order to confirm the project activity, start date, VVB team had reviewed the commissioning records of the pelletizer /08/ and found that the start date of the operation is 01/01/2022 which is inline with the date indicated in Plastic Program Joint PD&MR v.1.0 /01/ under Section 1.7. Start date of future project activity instances-after 01/01/2022 shall be confirmed through |

| | | | |
|---|---|---|---|
| | | | appropriate review of documentation. |
| Crediting Period | The project activity shall have a crediting period of 7 years, twice renewable for a total of 21 years, or 10 years fixed. | The project activity instance shall determine and adopt the project activity crediting period.<br><br>Reference to section 1.8 of the Joint PD&MR v.1.0 /01/. | Based on the interviews conducted with stakeholders during on-site visits, VVB team confirms that the project activity has adopted a renewable crediting period as indicated in Section 1.8 of the Joint PD&MR v.1.0 /01/. This eligibility criterion is thus fulfilled. |
| Project ownership | The project proponent shall demonstrate the legal right to control and operate project activities in accordance with section 3.4 requirements of the Plastic Standard. | The project proponent shall demonstrate evidence of project ownership for each project activity instance.<br><br>Review of project activity legal ownership documents and plastic credits contractual agreements. | Based on the review of the ownership documents /09/, VVB team confirms that the PP has sufficiently demonstrated the legal right to control and operate the project activity instance. This eligibility criterion is thus fulfilled. |
| Stakeholder Engagement | Project activity shall identify all stakeholder groups and shall be described in the project description. Project activity stakeholders shall be effectively consulted to influence the design and implementation of the project activity | The project proponent shall demonstrate that stakeholder groups affected by the project activity have been identified and effectively engaged in the design and implementation of the project.<br><br>Review of Joint PD&MR v.1.0 /01/ and stakeholder consultation reports/minutes and meeting attendance records. | Based on the interviews conducted with stakeholders during on-site visits, VVB team confirms that stakeholder groups have been identified as per the project need and are in line with the documented in Section 2.1.2 of the Joint PD&MR v.1.0 /01/. Further, based on the review of the minutes /19/ VVB team also confirms that a stakeholder consultation meeting was held on 05/08/2022 in Nairobi. |

Above observations made by VVB Team during validation and verification process, shows that the project compliance meeting with the project type and eligibility criteria laid down in requirements of VERRA Plastic Waste Reduction Standard v1.0.

### 2.1.4 Project Proponent and Other Entities Involved in the Project

As per the section 1.4 of the Plastic Program JPD&MR v1.0 /01/, Taka Taka Solution Ltd is acting as the Project Proponent and whereas South Pole Carbon Asset Management Ltd is the Project Consultant

| | |
|---|---|
| **Organization name** | Taka Taka Solution Ltd |
| **Contact person** | Daniel Luis Paffenholz |
| **Title** | CEO |
| **Address** | Laikipia Townhouses No1&2, Laikipia Road<br>Kileleshwa, Nairobi, Kenya |
| **Telephone** | +254 (0) 710 342 203 |
| **Email** | daniel@takatakasolution.com |

| | |
|---|---|
| **Organization name** | South Pole Carbon Asset Management Ltd |
| **Role in the project** | Project Consultant |
| **Contact person** | Rohit Garg |
| **Title** | Regional Director, Climate Projects - South Asia & Middle East |
| **Address** | Technoparkstr 1, 8005 Zurich, Switzerland |
| **Telephone** | +41-43 501 35 50 |
| **Email** | registration@southpole.com |

Validation and Verification team had cross examined the above statement through the verification of agreement /05/ made between Taka Taka Solution Ltd and South Pole Carbon Asset Management Ltd. for the project during the review of documents as well as interviews with stakeholders during site visit. Based on the outcome of the observations made, VVB confirms that Taka Taka Solution Ltd and South Pole Carbon Asset Management Ltd. are the project proponents.

### 2.1.5 Ownership

TTS, as the parent firm and project proponent (PP), holds the ownership/09/ to control and manage all the project activities and instances in line with the requirements of Section 3.4.1 of the Plastic Waste Reduction Standard v1.0 /B01/.

TTS exclusively owns and oversees the collection and recycling activity. In order to prove the ownership of activities, project proponent (PP) has duly provided the ownership documents i.e., Electricity bills for recycling activity Ehothia site /03/, NEMA Licenses /13/ and Business Permit issued by Kenyan Government /04/, in compliance with Section 3.4.1 of the Plastic Waste Reduction Standard V1.0 /B01/.

From the above observation made by the Validation and Verification team during the review of the documents as well as onsite visit, it is concluded that Taka Taka Solution Ltd. is the owner of the collection and recycling activity.

In order to confirm the ownership of the collected quantity of plastic waste as well as recycling activity, VVB had reviewed the ownership documents i.e., electricity bills for recycling activity Ehothia site /03/, NEMA Licenses /13/ and Business Permit issued by Kenyan Government /04/

Based on the observations made, VVB team confirmed that Taka Taka Solution Ltd had the rightful owner of the project.

### 2.1.6 Project Start Date

The collection and recycling facility has been operating from the date 01/01/2022. This is the start date as per the commissioning certificate /03/, NEMA Licenses /13/ and Business Permit issued by Kenyan Government /04/ provide by the PP.

The start date of the project was verified with the review of the commissioning certificate /08/, NEMA Licenses /13/ and Business Permit issued by Kenyan Government /04/ and the same was further cross verified during site visit through interview with stakeholders. Based on the observation VVB team confirms the project start date as 01/01/2022.

### 2.1.7 Project Crediting Period

The project crediting period is 7 years, and the project has opportunity to renew twice, each time for seven years, up to 21 years total. The crediting period starts from 01/01/2022 to 31/12/2028, which was coincides from the starting date of the project activity /03/, and last for 7 years. This has been cross checked with the VVB by reviewing the commissioning certificate /08/ provided by the PP and found that the same is in accordance with section 3.6 of the Plastic Waste Reduction Standard v1.0 /B01/.

Based on the outcome of the review of the documents and interview conducted during onsite visit, VVB team confirms that from 01/01/2022 to 31/12/2028.

### 2.1.8 Estimated Collected and/or Recycled Plastic Waste

The initial quantity of plastic waste collected and recycled, and the estimated annual addition quantity of waste to be collected and recycled are described in the Plastic Project Joint PD&MR v1.0 /01/, The total quantity of plastic waste is being collected at 1$^{st}$ to 13$^{th}$ PAIs of collection activities and recycled at 1$^{st}$ PAI of recycling activity is falls under the material type PP, HDPE, LDPE and PET which falls under the material mentioned in section 2.1.1 of Plastic Waste Reduction Standard, version 1.0 /B01/.

The numerical values described in the Plastic Project Joint PD&MR v1.0 /01/, for quantity of plastic waste collected, and recycling were cross verified through the supporting document provided by the PP i.e., Estimated plastic credit spreadsheet /02/. Based on the findings of the validation and verification process, the VVB team concluded that the estimated recycled plastic waste mentioned in Plastic Project Joint PD&MR v1.0 /01/, is in conformance with the requirements in section 3.11 of Plastic Waste Reduction Standard, version 1.0 /B01/.

The estimated quantities listed in the tables below are based on verification conducted during site visits for the period of 2022-2023. For the subsequent period from 2023-2024 to 2026-2028, the estimated quantities are derived from the provided estimated plastic credit spreadsheet /02/.

In order to ensure the consistency of the application of the equations, a comparison between the equations presented in the Plastic Project JPD&MR v1.0 dated /01/. and those given in the spreadsheets against the requirements of the methodologies PWRM0001 v1.1 and PWRM0002 v1.1 was carried out.

Based on the review of the data, VVB team determined that the methods and equations provided in the Sections 4.1 of the Plastic Project JPD&MR v1.0 dated /01/ for the calculation of the baseline of collection and recycling of plastic wastes have been calculated in accordance with the formulae provided under Sections 8.1 of the methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/.

Estimated annual net amounts of plastic waste collected within all the 13 instances of collection activity and recycled in 1st instance of recycling activity of the Project is given in below table.

**Table 1: Estimated Annual Net Collected & Recycled quantities, (Start date: 01/01/2022, End Date: 31/12/2028)**

| Year | Estimated Net Collected Plastic Waste (tonnes) | Estimated Net Recycled Plastic Waste (tonnes) |
|---|---|---|
| 2022 | 2383 | 1331 |
| 2023 | 6048 | 3476 |
| 2024 | 21366 | 12280 |
| 2025 | 24653 | 14170 |
| 2026 | 27940 | 16059 |
| 2027 | 31225 | 17949 |
| 2028 | 31225 | 17949 |
| **Total estimated amount** | **144840** | **83214** |
| Total number of crediting years (where applicable) | 7 | 7 |
| **Average annual amount** | **20691** | **11888** |

### 2.1.9 Project Location

This is a grouped project activity and Kenya is the geographical boundary of the project.

**Recycling activity:**

The recycling facility for the project is in Ehothia, Kenya, and the geo coordinates of Ehothia is 1° 8' 26.2068" S 36° 43' 59.016" E. The project location and geographic boundaries are designated in the KML files attached as part of this document /07/.

**Collection activity**

The recycling facility for the project is scattered at thirteen (13) different locations in various City of Kenya and referred as 1st to 13th PAIs for collection activity. The details of all 13 PAIs of collection activities are as given in table. The project location and geographic boundaries are designated in the KML files attached as part of this document /07/.

| Collection Channal | Location | Latitude Longitude coordinates | Start Date |
|---|---|---|---|
| Buyback centre | Dandora | 1° 15' 1.26" S<br>36° 53' 40.884" E | 1/1/2022 |
| | Thika | 1° 4' 37.992" S<br>37° 7' 2.604" E | 1/1/2012 |
| | Kitengela | 1° 29' 35.88" S<br>36° 58' 2.928" E | 1/1/2022 |
| | Kisumu | 0° 8' 8.1492" S<br>34° 47' 45.6792" E | 7/1/2022 |
| | Mlolongo | 1° 23' 24.936" S<br>36° 58' 32.88" E | 9/1/2023 |
| | Nakuru | 0°16' 42.8"S<br>36°02' 25.3"E | 9/1/2023 |
| | Kakuma | 3° 46' 2.3808" S<br>34° 49' 20.8596" E | 6/1/2023 |
| | Mombasa | 3° 49' 32.1276" S<br>39° 40' 51.24" E | 1/1/2022 |
| Material Recovery Facility (MRF) | Ehothia | 1° 8' 26.2068" S<br>36° 43' 59.016" E | 1/1/2022 |
| | Lusigetti | 1° 16' 39.954 S<br>36° 36' 15.044 E | 1/1/2022 |
| | Mombasa | 4° 1' 24.5136" S,<br>39° 40' 52.86" E | 1/12/2023 |
| Industrial Client | IC-01* | 1° 21’ 48.715”,<br>36° 54”41.00” | 1/1/2022 |
| | IC-02* | 1° 14’ 7.587”,<br>36° 52’ 30.652” | 1/1/2022 |

Each of the collection and recycling centres of Project Activity Instance has been specified using a single geodetic coordinate as required under section 3.7.1 of the Plastic Waste Reduction Standard v1.0 /B01/.

Additional geographic information (names of the locations of the instances) has also been provided in Plastic Project JPD&MR v1.0 dated /01/.

In order to identify and validate the project location, VVB had taken GPS coordinates during the onsite inspection, these were aligned with the GPS locations provided in JPD&MR v1.0 and also locations indicated for Project Instances in the KML file provided by PP. Further, the same was cross verified through reviewing the approval for project activities in the indicated project locations as given by the concerned authorities.
Based on the observations, VVB confirms that the locations mentioned in the approval documents are in line with the project locations as indicated by the Project Proponent.

### 2.1.10 Conditions Prior to Project Initiation

The conditions existing prior to project initiation was determined to be the same as the baseline scenario as described in Section 3.5 of Plastic Project JPD&MR v1.0 dated /01/. Despite of the interference of the NEMA to the municipal bodies to designate areas of waste disposal and undertake basic actions to manage the sites, there is lack of proper collection and recycling of plastic waste in Kenya. The reason behind this is, they lack appropriate technologies and disposal facilities leading to lack in the proper collection practices as well as its recycling.

VVB team cross checked the various government policy documents and published non-governmental reports cited by the Project Proponent and found them reliable.

Conditions of the labour, working conditions human health, energy consumption, greenhouse gas (GHG) emissions, air quality, soil quality, and biodiversity and ecosystem health prior to the project was confirmed through the observations made by VVB team during the onsite visit as well as interviews conducted with the stakeholder including, TSS employees and informal/ formal collectors. Based on the findings, VV team concludes that the description of labour, working conditions human health, energy consumption, greenhouse gas (GHG) emissions, air quality, soil quality, and biodiversity and ecosystem health prior to project initiation as provided by the Project Proponent (PP) is appropriate and true to reality.

### 2.1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

Kenya has Environmental Management and Coordination Act, 1999 (EMCA) (Rev. Ed. 2018) and Sustainable Waste Management Act 2022 /13/ that establish guidelines and regulations for the Law provides for the establishment of a Waste Management Board, mandatory extended producer responsibility programmes, recovery of household waste and the closure of illegal landfills in all 47 counties of the East African country. The Rules and Regulations for the same will be formulated and notified within 2 years from the date of Notification of the law, that is July 2022, therefore, currently while EPR exists as a direction, it is currently not in force yet.

VVB team reviewed the NEMA licence /13/, received by PP from concern authority related to project compliance against applicable legal and regulatory requirements. The same had also been confirmed through face-to-face interviews with various project stakeholders during on-site inspections to verify information in the Plastic Program JPD&MR v1.0 /01/.

Based on the review of the documents and the observations made during the physical on-site inspections, the VVB team confirms that the grouped project activity activity adheres to the applicable laws, statutes, and regulatory frameworks outlined in environmental laws of Kenya i.e., Environmental Management and Coordination Act, 1999 (EMCA) (Rev. Ed. 2018), Sustainable Waste Management Act 2022, Kenya

Employment Act of 2007 and Legal Notice Number 125-Regulation of Wages (General) Amendment Order, 2022..

### 2.1.12 Additional Information Relevant to the Project

In the section 1.14 of JPD&MR, it is mentioned that “The Stakeholder Consultation Meetings list has been removed due to names and contact details being supplied.”

During the onsite visit, VVB reviewed the documents related to stakeholder consultation meetings and observed that the documents contain the list of the stakeholder, along with their contact details, with whom PP is involved into the business viz feedstock suppliers and buyers of collected/ recycled material. Further, during the stakeholder interview it was communicated by PP that making public this document may affect the business. Based on the assessment results, VVB has concluded that removing the list of Stakeholder Consultation Meetings from the JPDMR is acceptable. In the JPD&MR it is mentioned that implementation of project entitled, "Plastic Waste Recycling and Improving Waste Picker Livelihoods in Kenya” by TTS contributes to the sustainable development of surrounding communities, offering social and economic benefits. This includes increased job opportunities and a boost in local and regional economies.

In order to verify the statement given in the section 1.14 of the JPD&MR, VVB conducted interview with the stakeholders involved in the collection of the plastic waste. From the findings of the assessment, VVB confirms that the implementation of project activity resulted into the employment generation and is in line with statement given in the JPDMR.

## 2.2 Stakeholder Engagement

### 2.2.1 Stakeholder Identification

All relevant stakeholders were identified following the guidelines outlined in Section 3.13.1 of the Plastic waste reduction standard v1.0 /B01/. Under this a comprehensive approach was taken to identify all the relevant stakeholders of the project.

The VVB team considered the legal, environmental, and socio-economic impacts associated with the grouped project in assessing and analysing the stakeholders and stakeholder groups, including marginalized and vulnerable groups, as identified by the project proponent. During the onsite visit, the VVB had conducted own analysis of (potential) stakeholders (among others through cross checking and stakeholder interviews) to find out the possibility of new (potential) stakeholders. No new (potential) stakeholders were identified through the stakeholder interviews and on-site activities during the validation/verification.

Following this assessment conducted, it is concluded that the stakeholder identification process has proven to be effective to identify all (potential) stakeholders, and the approach to stakeholder identification is deemed appropriate for the project’s context.

Further, based on the assessment, VVB confirms that all relevant stakeholders were identified following the guidelines outlined in Section 3.13.1 of the Plastic Standard. In evaluating and analysing stakeholders and their respective groups, including marginalized and vulnerable communities as highlighted by the PP, the validation and verification assessment team confirms the consideration of the legal, environmental, and socio-economic conditions linked with various instances of multiple project activities.

### 2.2.2 Stakeholder Description

As per the section 2.1.2 of the JPD&MR v1.0 /01/, the following key stakeholder groups have been identified, by the PP, who are involved in the project activities and invited for active participation during the stakeholder engagement process:

1) **Informal Waste pickers:** The waste collectors are employed and paid to collect waste. All waste collectors are local to the buyback centres and benefit from the cleaner local environment.
2) **Recyclers:** Recyclers are the local people who are employed in the recycling sites for sorting and recycling and who benefit from the healthy work environment.
3) **Local community:** The local population which is directly affected by project collection and recycling instances locations such as neighbours. These communities are usually not registered with a formal waste collection service provided by the government or other entity.
4) **NGOs:** NGOs such as the Kenya Association of Waste Recyclers, Trash Care Services, which care about the environment, waste collectors, and recyclers, are also impacted by the project.
5) **Local Government bodies** such as local municipalities and their county representatives where the project's collection centres and recycling centre has been set up.
6) Kenyan Plastic Businesses including Kenyan Plastic Buyers and Associations.

In order to assess that the stakeholders are appropriately identified the role of the identified stakeholders were verified through review of the documents viz. purchase invoices/ agreements for stakeholders involved in supply of plastic waste, sale invoices for the stakeholders involved in purchase of recycled plastic, etc. Further, the same was cross checked by conducting interviews with the stakeholders during the onsite visit. The VVB team interviewed all identified stakeholders except the companies to whom recycled plastic was being sold and government officials who were not available during the time of the visit. The validation and verification team interviewed all stakeholders privately without presence or interference of TTS management.

Based on the observations made, VVB confirms that the project proponent as sufficiently described about the stakeholders.

### 2.2.3 Stakeholder Consultation

The validation and verification were carried out both telephone and oral interviews with identified stakeholders in the plastic Program JPD&MR v1.0 /01/ alongside review of documentation presented to the team to assess the project's process for conducting effective consultation with the identified stakeholders. From reviewing the documents (viz. invitation, minutes of meeting) provided by PP, VVB was able to determine that a physical stakeholder consultation meeting was conducted on, in Nairobi on 05/08/2022 as described under section 2.1.3 of the plastic program JPD&MR v1.0 /01/. The Stakeholder's consultation process included face-to-face meetings with the identified stakeholders such as waste pickers, collectors, women's groups that collected, washed and sorted the plastic waste, and the day workers and was open to NGOs and Plastic Businesses and Manufacturing Associations along with local government officials who may raise any concerns at any point of time with the help of Grievance/Feedback Mechanism.

Interview had been conducted with the stakeholders on their experience with the contact with the project and its management to assess the plan for continued consultation and adaptive management.

To evaluate stakeholder involvement in the project, VVB conducted interviews with stakeholders during the onsite visit. Observations from these interviews and discussions with management revealed that the Project Proponent (PP) regularly organized meetings with stakeholders to update them on project activities and gather feedback.

The assessment of consultation procedures, involving a review of the JPD&MR and interviews with stakeholders during the onsite visit, led to the following conclusions:

a. Traditional communication methods were employed, tailored to each stakeholder group's composition (e.g., phone calls, public notice and verbal communication). This approach was deemed appropriate for engaging with each stakeholder group.

b. PP effectively shared information concerning potential costs, risks, and benefits with each stakeholder group.

c. VVB observed, through stakeholder interviews, that the project's activities provided a regular income to those involved in waste collection and recycling, particularly benefiting marginalized and vulnerable groups.

Based on these observations during assessments, VVB affirms that the

- local community was actively invited for consultation, and the Project Proponent (PP) effectively utilized social media to update the community about project activities.
- project dedicated specific attention to optimizing benefits for marginalized and vulnerable groups, and the stakeholder consultation procedures and operations align with the requirements of the Plastic Standard.

The VVB confirms that the statement mentioned in the Section 2.1.1 of the Plastic Program Joint PD&MR v1.0 /01/ for stakeholder consultation adheres to the guidelines outlined in section 3.13.5 of the Plastic Waste Reduction Standard v.1.0 for consultation and participation.

Informal waste workers and Formal waste workers communication session






local stakeholder Consultation




### 2.2.4 Free, Prior and Informed Consent

TSS, as the parent firm and project proponent (PP), holds the ownership to control and manage all the project instances /04 & 09/ and PP had legal agreement with the owner of the land acknowledging that they permit the recycling activities to take place. Hence there is no property right are impacted by the Project as the facility is owned by the project Proponent. The same had been verified through review of the land agreement documents, approvals received from the concerned authorities for operating the

facilities. Further, the same was cross checked through conducting interviews with stakeholders during onsite visits.

Based on the observation made, VVB confirms that no property right was affected by the implementation of the project and hence, no consent was required.

### 2.2.5 Continued Consultation and Adaptive Management

As per the statement given in section 2.1.5 of the JPD&MR v1.0 /01/, TTS team constant communication is maintained as the informal waste workers are an essential stakeholder influenced by the project. These continuous feedback and grievance modes include grievance registers maintained at all project sites of collection and recycling instances for all stakeholders identified to freely register their issues or contribute their suggestions or recommendations.

The adaptive management plan further includes online mode to register their grievance or feedback which is freely and equitably accessible and was described in depth during the LSC and as part of the continuous consultations and adaptive management. All the local government bodies are consulted and updated for requisite license renewals annually or more frequently if any conversations or inspections as required.

VVB team has conducted review of documents i.e., documented grievance mechanism/09/ for verifying the above statements and VVB team also verified the same during onsite visit through interviews with the stakeholders.

In order to the verify of the above statement mentioned in JPD&MR regarding the plan for continued consultation, stakeholder as well as effectiveness, appropriateness and completeness of this plan, VVB conducted interview with stakeholders on their experience with the contact with the project and its management. Further, to access the effectiveness of the grievance mechanism, documented procedures were reviewed and the same was further cross verified during the interviews with the stakeholders on their experience.

Based on the review of the documents and observation made as well as interviews conducted with stakeholders during on-site visit, VVB concluded that project's plan for continued consultation allows the project proponent to effectively communicate with and consult all stakeholder groups using an adaptive management approach.

Based on the on-site interviews with stakeholders and the PP, in addition to a review of documents pertaining to the grievance mechanism /09/, VVB concluded that project's plan for continued consultation allows the project proponent to effectively communicate with and consult all stakeholder groups using an adaptive management approach.

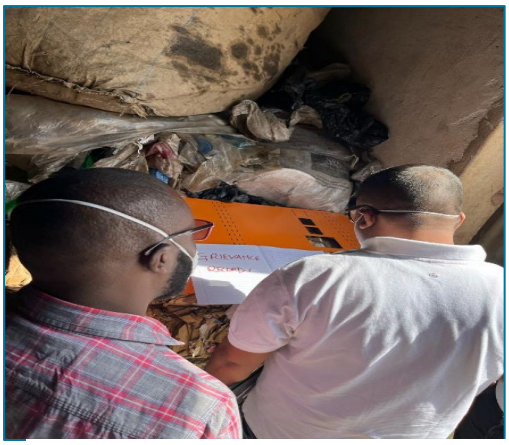
### 2.2.6 Anti-Discrimination

The validation and verification assessment team reviewed and analysed project-development and implementation documentation on discrimination /09/. To verify the accuracy of the information provided in the project proponent's policy documentation, on-site interviews with marginalised and stakeholders were also conducted. The assessment team also found that the project proponent has established Code of Conduct /09/ for handling and reporting instances of discrimination in their policies.

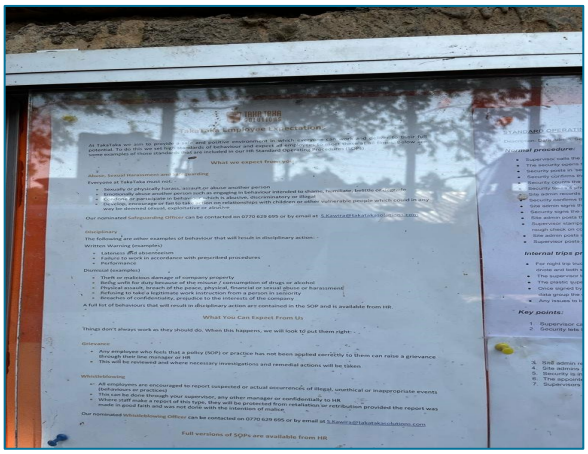
The statement mentioned above is confirmed by the validation and verification team through both on-site interviews and a thorough desktop verification of TTS's documentation on discrimination internal Code of Conduct policy.

### 2.2.7 Feedback and Grievance Redress Procedure & Accessibility

The VVB team thoroughly examined the SOP for project feedback /09/ and grievance redress procedure documentation /09/. Additionally, they conducted interviews with various stakeholders to gauge their comprehension of these procedures.



Grievance Record at Project Collection Site Dandora



SOP for grievance registration mechanism at Ehothia Main Office

Further, in order to validate and verify the awareness about the grievance redress procedure among the stakeholders and the accessibility of the contact details to stakeholders, VVB examined their website to ensure the availability of contact details for raising grievances and providing feedback.

Additionally, this information was cross verified through interviews conducted during the on-site visit to assess stakeholders' awareness.

Based on these observations, VVB confirms that the feedback and grievance redress procedure is established, stakeholders are aware of the same and contact information is available on the website and is easily accessible to stakeholders.

### 2.2.8 Stakeholder Access to Project Documentation

The project proponent makes project documentation available to all project stakeholders, stakeholder groups and interested parties by providing the access through the email request for the project documents.

In order to verify the above statement mentioned in the JPD&MR, VVB team had conducted face-to-face interviews with the sampled project stakeholders during site visits. Furthermore, during the interviews it was observed that they were further explained about the project documents in a simpler way to understand the process in more details.

Based on the above observations, VVB team confirms that the chosen measures are appropriate and sufficient to guarantee continued stakeholder access to project documentation.

### 2.2.9 Information to Stakeholders on Validation and Verification Process

As per Section 2.1.10 of Plastic Program JPD&MR v1.0 /01/, PP has informed the stakeholders about the audit through e-mail and public notice. VVB team had conducted in-person interviews with stakeholders during onsite visit to gauge their comprehension of the validation and verification audit process, which had been communicated to them during the meetings.

The statement made in the JPD&MR was verified by cross checking the e-mail sent to the stakeholders regarding the visit of VVB for validation and verification. The same was further cross-checked through the interview conducted with the stakeholders.

Based on the above observations, VVB confirms that confirmed that they were given information concerning the validation and verification teams visit.

## 2.3 Safeguards

The program aims to reduce the amount of plastic waste that stays within the environment through the recycling of as much plastic waste as possible to limit the impact on nature. The program aims to cut down the quantity of the plastic waste that is being dumped at landfills and leaking in rivers, oceans, etc. as well as utilization of recycled plastic to replace the virgin plastic.

Validation and Verification team had cross verified the information through review of the tax invoice for sale of the recycled granules. The same were further verified while made interactions with staff members and stakeholders during the site visit.

Based on the desk review and on-site inspection/interviews, VVB confirms the information mentioned above is correct.

### 2.3.1 Health and Safety

The project activity within the project boundary poses hazards and risks may occur during the collection and recycling of the waste by rag pickers and the employees working in the recycling facility since it involves the collection and recycling of plastic wastes into plastic pellets with emission of any hazardous gases or effluents. Standard Operating Procedures (SOPs) /09/ are in place to ensure proper machine handling, minimizing any potential accidents related to health and safety. To further safeguard workers, they are provided with PPE kits viz. hand gloves, hair nets, and face masks, as well as providing regular training and briefings /10/ on health and safety risks associated with direct waste contact.



PPE distribution by TTS team for informal waste workers

The Validation and Verification team had cross verified the statement through reviewing the relevant health and safety documentation and the training records /10/related to the project, direct interviews with project stakeholders and physical observation of work site.

Based on the desk review and on-site inspection/interviews, VVB confirms the information mentioned above is correct.

### 2.3.2 Labor

During the on-site visit with the interviews with stakeholders viz. workers, it was confirmed that the TSS complies with labour and human rights laws and practices applicable in the host country. Employees at all the project instances are at least 18 years old. As a result, they are opposed to child labour. Furthermore, the organization provides trainings /10/ on different aspects of the project activities.

The assessment above is based on on-site inspection interviews with the stakeholders and through desk review of the above-mentioned documents.

Based on the findings of the assessment, VVB confirms that project activity complies with Kenyan Employment Act of 2007 and The National Social Security Fund (NSSF) Act, No.45 of 2013.

### 2.3.3 Energy Efficiency and Greenhouse Gas Emissions

The main source of GHG emissions is the energy consumption of machinery used in the recycling facilities and the transportation involved in the project activity. PP had installed solar PV system in Ehothia campus to supply electricity for pelletiser machines.

During the assessment above statement was verified by VVB through the review of the calculation made for the estimation of the emission reduction and installation certificate of PV system and conducting interviews with staff involved in project activities during site visit.
Further, the emission calculation was verified by the monitoring records detailing electricity consumption and the plans aimed at minimizing usage. This assessment was further validated by cross-referencing electricity bills with records of electricity consumption and machine working hours during the onsite visit.

Following these observations, VVB confirms that the statement given in the Plastic Program JPD&MR is in place.

### 2.3.4 Condition of Natural Resources

As per Section 2.3.4 of Plastic Program JPD&MR v1.0 /01/, the project activities have no effect on air quality, water quality, soil quality, biodiversity, or endangered species of any kind. The project involves collecting plastic wastes and recycling them into plastic pellets for reuse in order to prevent their indiscriminate disposal in landfills, which could affect the quality of the soil, and in rivers, oceans, etc., which could affect the quality of the water. The implementation of the project will reduce the need to incinerate plastic wastes or dispose of the plastic wastes into oceans and landfill, hence not impacting the air quality, water quality and the soil quality respectively in a negative manner. Soil quality is improved by avoiding the disposal of plastic waste in landfills. This also prevents chemicals from leaching into the soil from microplastics and degrading plastics. The threatened and endangered species are further protected as well. With less plastic pollution, there is less harm to wildlife and other organisms.

VVB had cross verified the statement through reviewing the recycling process documents with best practices being adopted and conducting interviews with staff involved in operation activities during the onsite visit.

Based on the document review and onsite inspection interviews with the stakeholders, VVB confers that the statement given in the Plastic Program JPD&MR are correct.

### 2.3.5 Additional Impact Certifications

TTS has not applied any additional impact certifications for project entitled, " Plastic Waste Recycling and Improving Waste Picker Livelihoods in Kenya".

## 2.4 Application of Methodology

### 2.4.1 Title and Reference

The project has applied both on Plastic Waste Collection Methodology PWRM0001 v1.1/B03/ and Plastic Waste Mechanical Recycling Methodology PWRM0002 v1.1 /B04/.

### 2.4.2 Applicability

The eligibility criteria have been provided clearly in section 3.2 of the Plastic Program JPD&MR v1.0 /01/ and then justification provided for inclusion of project activity instances as per Plastic Waste Reduction Standard v1.0 /B01/.

Here are the applicability criteria of PWRM0001 v 1.1. /B03/.

| Applicability criteria of the methodology (PWRM0001, version 1.1) | Justification in Joint PD and MR | DOE assessment |
|---|---|---|
| 1. Project activities result in plastic waste collection from the environment through one or more of the following activities: a) Informal collection: Collection of plastic waste by the informal sector for recycling or other waste management purposes b) Formal collection: Collection of plastic waste streams under the ownership and oversight of the formal sector for recycling or other waste management purposes. There may be participation of the informal sector in some activities of the value chain, but the ownership and management of the project activity lies with the relevant local authorities (e.g., government, quasi-government). | The TTS PWRP Collection Instance comprising of Buy Back centres, Material Recovery Facilities and Industrial Clients with | The TTS PWRP Instances 1 to 13 involve in collection of waste from the "Informal Sector". VVB has assessed the statement mentioned in Plastic Program JPD&MR v1.0 /01/ through reviewing the purchase invoices /06/ and conducting interviews with stakeholders involved in activity particularly waste collection during the onsite visit. |
| 2) The collection activity is a new activity or a capacity addition activity resulting in | The Collection Instance activities listed above are a | VVB has verified the justification provided in |

| | | |
|---|---|---|
| an increase in the total capacity of the collection activity. The collection process may be accomplished manually or by electro-mechanical equipment (automatic or semi-automatic). | new activity carried out for the recycling of plastic waste under the Recycling Instance component of the TTS Recycling project at Ehothia. This is because the project's collection ownership is owned entirely by TTS. | the JPD&MR v1.0 /01/ thorough review of the consent order of operation /13/ issued by concerned authority and conducting interviews with stakeholders involved in activity during the onsite visit. |
| 3) The sources of the collected waste are clearly identifiable and are existing or potential sources of plastic waste that would have been left or dumped in the environment (including open burning, dumpsites) or incinerated without energy recovery in the absence of the project activity.13 This can be demonstrated by using the most recent official government data, third-party independent surveys and research, academic research/papers, independent market research, data from industry bodies or local authorities or other credible evidence. | The sources of the collected waste are clearly identifiable and are existing or potential sources of plastic waste that would have been left or dumped in the environment or openly burned in the absence of the project activity. This is demonstrated by using the PLASTEAX database as demonstrated with the Penetration Rate for Collection Instance. | Publicly available literature i.e., IUCN-EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country report Kenya and The Toxic Plastic Waste Trade – A case Study of of Muoroto Slum in Mombasa, Kenya, state that 92% of plastic waste produced in the Kenya is mismanaged and only 8% of the plastic waste is collected and recycled. Which demonstrate that enough quantity of unattended/ unrecycled material is available in the region.<br>Based on the above observations, VVB confirms that Project activity meets Applicability condition 3 |
| 4) The collected waste is disposed of directly in a landfill or transferred directly (with or without commercial transactions) to a processing/recycling/manufacturing facility or to a chain of intermediary agencies that transfer the material to an appropriate end destination (e.g., identifiable processing/recycling/manufacturing facilities and/or landfills). | The collected waste is sorted by type, weighed and transferred to a mechanical recycling facility at Ehothia, under Recycling Instance, where it is processed into pellets and sold to plastic manufacturing facilities. | VVB has assessed this information by cross checking the supply chain (source to end users) and found that the information provided by the PP is correct.<br>Purchase invoices of the collected plastic /06/. |
| 5) The dry weight of the final output of collected plastic waste that reaches an | The dry weight of the final output of collected plastic | The dry weight of the final output of collected plastic |

| | | |
|---|---|---|
| appropriate end destination is directly measured and recorded. Where it is not possible to directly measure the output, measurement records may be obtained from the end destination (i.e., the purchasing or receiving entity of the collected plastic waste). Evidence such as sales invoices generated by the project proponent or goods receipt notes generated by the plastic waste recipient are acceptable records for accounting purposes. | waste that reaches to all TTS PWRP Collection Instance and Recycling instance for mechanical recycling facility is directly measured and recorded.<br>Evidence such as sales invoices generated by the project proponent or goods receipt notes generated by the plastic waste recipient are submitted. | waste that reaches mechanical recycling facility is directly measured and recorded. This was conformed during the site visit and by cross checking the plastic product sales invoices /06/ generated by the project proponent or goods receipt notes generated by the plastic waste recycler. |
| 6) The output of the collection activity is not used in any unauthorized, illegal or non-statutory activities within the project boundary (e.g., the manufacturing of products that do not conform to the quality criteria set by the relevant statutory/regulatory bodies, including the manufacturing of unauthorized products in a planned manner or as exceptions/rejects in the production line). This can be achieved by monitoring the output of the collection activity and demonstrating that collected waste goes to an authorized or licensed entity. Contractual documents between the project proponent and the recipient of the collected waste are sufficient to demonstrate the same. | The output of the collection activity is not used in any unauthorized, illegal or non-statutory activities within the project boundary. Payment invoices are recorded and used to verify that the collected waste goes to the recycling facilities. | At all the three project instances, the collected waste plastic is being mechanically recycled with in the project boundary and a part of this is being sent to other recycling facility.<br>VVB team had conformed the same through review of the sale invoice /06/ of recycled materials and plastic waste as well as conducting interviews with stakeholders involved in activity during the onsite visit |
| 7) The material collected in the project activity is taken to one or more of the end-of-life destinations listed below, referred to as appropriate end destinations throughout this methodology. Compliance of the activities of the end destination facility with relevant local or national regulations must be demonstrated.<br>-reprocessing,<br>-mechanical recycling,<br>-Incineration with energy recovery,<br>-Chemical recycling and (landfilling). | The waste material collected in the project activity is taken to an end-of-life facility defined as in the TTS PWRP Collection and Recycling Instances as a mechanical recycling facility where the collected waste is reprocessed into plastic pellets and/or flakes and sold to displace consumption of virgin plastic polymers. | Plastic waste being collected excluding PET at all the thirteen collection instances of collection activity of project is being mechanically recycled at 1st PAI of recycling activity within the project boundary.<br>VVB team had conformed the same through review of the machine installation certificate /08/, sale invoice /06/ of recycled materials and plastic waste as well as |

| | | |
|---|---|---|
| | | conducting interviews with stakeholders involved in activity during the onsite visit |
| 8) There is plastic waste available in the region that would not have been collected in the absence of the project. Availability of plastic waste may be demonstrated by, among others, using the most recent publicly available data on plastic waste generation and collection rates in the region to show that there is plastic waste that is not being collected. | The availability of plastic waste is demonstrated by defining the baseline scenario and penetration rate using the publically available PLASTEAX database and Plastic Waste Baseline Report for Kenya. | Based on the review of the literature available /11/ in public domain and interviews with stakeholders involved in activity during the onsite visit, VVB team had confirmed the statement given in JPD&MR v1.0 /01/ is in line with the methodology. |
| 9) The project activity does not compete with other collection activities or include plastic waste that has been diverted from a historically existing collection activity. Evidence, such as proof of how the plastic waste was managed over the three-year period prior to implementation of the project activity, must be provided to demonstrate that the project activity does not divert plastic waste from any historically existing collection activity. | Plastic waste collection and recycling are negligible in scope due to a lack of formal waste collection services and coordinated government resources. As defined in the project eligibility, the plastic waste recovery is below 20% for all project polymers as demonstrated in the Penetration Rate calculations. The PLASTEAX database is the reference dataset along with peer reviewed and open-source data. | Publicly available literature i.e., IUCN-EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country report Kenya and The Toxic Plastic Waste Trade – A case Study of of Muoroto Slum in Mombasa, Kenya, state that 92% of plastic waste produced in the Kenya is mismanaged and only 8% of the plastic waste is collected and recycled. Which demonstrate that enough quantity of unattended material is available in the region.<br>Based on the findings, VVB confirms that Project activity meets Applicability condition 9 |
| **This methodology is not applicable under the following conditions:** | | |
| 10) Project activities include any of the following end-of-life destinations of plastic waste:<br>a) Open burning;<br>b) Dumping on open land; | Plastic waste collected in the project activity is taken to an end-of-life facility i.e., the project's Recycling Instance comprised of mechanical recycling pelletisers. Also, | Based on the interviews conducted with stakeholders involved in project activities and observation made during onsite visit VVB confirmed |

| | | |
|---|---|---|
| c) Dumping in water bodies and/or dumpsites; or<br>d) Incineration without energy recovery | not recycled or is lost during the recycling process (e.g., due to contamination) is managed in a way that does not include dumping on open land, in water bodies and/or at dumpsites; open burning; or incineration without energy recovery. Contaminated plastic waste is either not accepted by the recycling facilities or is stored for later disposal by the authorized agency as per the relevant regulations.<br>Records are maintained by the TTS. | that project activity does not include open burning, dumping on open land and water bodies etc. |
| 11) Transboundary movement of collected plastic waste occurs between countries, except in the following circumstance: a) Projects involve collection of plastic waste in a Least Developed Country (LDC)20 or Small Island Developing State (SIDS)21 and its export to any country after completing at least one pre-processing requirement (i.e., sorting by material, removal of impurities, shredding and resizing, identification/testing and/or separation), where the waste is taken to an appropriate end destination in the importing country. A robust and transparent chain of custody from the source of plastic waste in the exporting country to the appropriate end destination must be provided. | The collected plastic waste is mechanically recycled/reprocessed into plastic pellets and/or flakes within the host country i.e., Kenya. Thus, transboundary movement of collected plastic waste does not occur between the countries | In order to assess the fulfillments of the applicability condition 11, VVB has reviewed the purchase invoices for waste plastic and conducted the interviews with the stakeholders involved in the collection, procurement and transportation of the waste during on-site visit. Based on the findings of the assessment, VVB confirms that the cross-border transportation of plastic waste between countries is not taking place. |

Here are the applicability criteria of PWRM0002 v1.1. /B03/.

| Applicability criteria PWRM0002 | Justification in Joint PD and MR | VVB assessment |
|---|---|---|
| 1) Project activities result in mechanically recycled plastic waste through one or more of the following: (a) new facility (b) Capacity addition (c) incentivising and facilitating an | The TTS PWRP Recycling Instance involves the installation and operation of new mechanical recycling facilities comprising of | Based on the review of the installation certificate /08/ VVB has found that the project involves in installation and operation of |

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| increase in collection and/or sorting of plastic to enable an increase in recycling. | plastic pelletisers for the project's collected plastic waste under Collection Instance justified above. | a new mechanical recycling facility for collected plastic waste. |
| 2) The plastic waste being recycled is either collected or diverted from: a) The environment; b) Landfill; c) Open burning; d) Incineration with energy recovery; e) Households and/or commercial entities; f) Incineration without energy recovery; or g) Any other waste management option that does not allow for a second life of the plastic waste | Under the Collection Instance, the plastic waste is collected by informal waste workers from untreated landfills, open dumpsites, public areas, streets, near waterways, industries as well as through buyback centres as explained above in Section 3.2 Table 9. | In order to access the collection process VVB conducted interviews with the waste aggregators and workers associated involved in the collection process, to know about the source from where they are getting the material, how they are selling it to the PP.<br>Based on the observation made, VVB confirms that project compliance with the applicability condition 2 of the PWRM0002 v1.1. |
| 3) Project activities include mechanical and/or chemical recycling as defined in the latest version of the Plastic Program Definitions. | The TTS PWRP Recycling Instance involves the installation and operation of new mechanical recycling facilities composed of plastic pelletisers for the project's collected plastic waste under Collection Instance as defined in Sec 3.2 Table 9. | On the basis of review of the purchase order of machines /08/ and machine installation certificate /08/, VVB team confirmed that the project involves the installation and operation of a new mechanical recycling facility for collected plastic waste. |
| 4) The plastic waste stream is sorted before it enters the recycling process. The project proponent must provide a sorting description (i.e., documentation of the sorting process implemented by the sorting facility prior to the recycling process). The sorting process must result in a plastic waste stream (homogeneous or heterogeneous) that is appropriate for the recycling technology used in the project. The sorting description must include the following: a) Source of the plastic waste (e.g., household, industrial entity); b) Technologies and methods used to sort the plastic waste; c) Detailed description of the sorting criteria; and d) Expected | The collected waste is sorted by type, weighed and transferred to a mechanical recycling facility at Ehothia, where it is processed into pellets and sold to plastic manufacturing facilities. The intent of sorting is to ensure that only relevant plastic waste enters the recycling process. It also aims to ensure increased efficiency of plastic waste recovery.<br>The sorting process description include:<br>a) the source of the plastic waste; | This was confirmed through observation made during the onsite visit and cross checked during the review of the technical information /08/ provided by PP for machinery installed in the recycling facility. |

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| material composition of output waste streams post-sorting, according to material types defined in the latest version of the Plastic Standard. Technologies and/or methods for sorting plastic waste include, but are not limited to, manual sorting (i.e., based on color, size or other physical features), automatic sorting techniques (e.g., near infrared, X-rays), electrostatic sorting, sink-float separation and selective dissolution. This methodology does not prescribe or limit the technology and/or method used to sort plastic waste. Credible evidence such as manufacturer specifications or good practice guidance (GPG) must be provided to demonstrate that the technology and/or method used to sort plastic waste is appropriate for the collected plastic waste and the technology or technologies used to recycle the plastic waste. | b) the technologies and methods used to sort the plastic waste;<br>c) a detailed description of the sorting criteria; and<br>d) the expected material composition of output waste streams post-sorting. | |
| 5) Plastic waste intended for recycling is not mixed with hazardous materials or substances (e.g., coatings, adhesives or colorants) that could become unsafe if compressed, combined or exposed to high temperatures during the recycling process. If the plastic waste contains hazardous materials or substances, it must be treated following relevant national, regional and local regulations, industry best practices and/or internationally or nationally available GPG before entering the recycling process. | The process involved in the recycling facility includes sorting of the material as per the material type and colour, washing to remove contamination from it and drying before entering into the recycling process. Thus, plastic waste intended for recycling is not mixed with hazardous materials or substances that could be unsafe. | During the onsite visit, VVB made the observations of the process involved and interviews conducted with the stakeholders, to conform the Plastic waste intended for recycling is not mixed with hazardous materials or substances. |
| 6) It is possible to directly measure and record the final output of the recycling facility (i.e., the weight of recycled plastic waste or any other kind of raw material derived from plastics using chemical processes) segregated by material type as defined in the latest version of the Plastic Standard. Where | The different types of plastic are recycled separately, and the final output of the recycling facilities is measured and recorded. The plastic, after being recycled into pellets, is placed into clear bags for sale to plastic | In order to verify the final output of the recycling facility VVB had reviewed the inventory maintained for the final output of the recycling process as well as the calibration records for the weighing balance being |

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| the output is of a chemically decomposed form of plastics and the material type can no longer be determined (i.e., in the case of chemical recycling), the material type must be determined based on the input to the depolymerization process, using a mass balance approach. | manufacturers for remanufacturing into plastic products for local consumption and displace virgin plastic. | used. The same was further cross verified by the cross checking the sale invoices of the materials being sold to the third party.<br>Based on the observation made VVB confirms that project activity meets the applicability criteria 6. |
| 7) The quality of the recycled plastic waste allows it to be used as feedstock in the manufacture of recycled products, thereby displacing the use of virgin plastic. Properties of the output of the recycling facility (e.g., presence and/or type of contamination, characteristics of macromolecules, chemical stability) may be used to demonstrate quality. Only the fraction of the output of the recycling facility that is or can be used to produce recycled plastics is eligible for WRCs. Any output that is used as a fuel, for energy recovery and/or as a chemical for any purpose other than plastic production is not eligible for WRCs.<br>Credible evidence such as contractual agreements, receipts of sale of recycled material, third-party audits, third-party survey results or chain of custody certification (e.g., ISCC PLUS) must be provided to demonstrate compliance with this applicability condition. In all cases, credible evidence must be provided from a source that can be verified by the validation/verification body (VVB). | The quality of the recycled plastic waste allows it to be used as feedstock in the manufacture of recycled products, thereby displacing the use of virgin plastic. The recycled plastic pellets are sold in bags to manufacturers. All sales receipts are processed and stored. | The recycled plastic quality that allows feedstock is confirmed through the review of sale invoices of the recycled materials /06/. |
| 8) There is recyclable plastic waste available in the region that would not have been recycled in the absence of the project. Availability of recyclable plastic waste may be demonstrated by, among others, using the most recent publicly available data on plastic waste generation and recycling rates in the region to show that there is plastic waste that is not being recycled. | The availability of plastic waste is demonstrated by defining the baseline scenario and using the most recent publicly available data on plastic waste. | On the basis of the review of information provided in the JPD&MR v1.4 /01/, reference articles & data available in public domain /11/ on the plastic waste, VVB confirms that there are very few recycling facilities prior to the implementation of the project which are |

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| | | insufficient for recycling of plastic waste being generated in the project area. |
| 9) Project activities that include any depolymerization of sorted plastic waste streams must justify why the materials in the sorted plastic waste stream cannot be recycled using any other technology or technologies resulting in a smaller relative reduction in (macro) molecular mass. | TTS PWRP Recycling Instance does not include any depolymerization of sorted plastic waste streams. Only mechanical recycling process is followed. | On the basis of review of the documents viz. machine specification /08/ and observations made during onsite visit, VVB confirmed that the project does not include any depolymerization of sorted plastic waste streams. |
| 10) The project activity does not compete with other recycling activities or include plastic waste that has been diverted from a historically existing, legally recognized recycling activity. Evidence, such as proof of how the plastic waste was managed over the three-year period prior to implementation of the project activity, must be provided to demonstrate that the project activity does not divert plastic waste from any historically existing, legally recognized recycling activity. | As defined in the project eligibility criteria for additionality and demonstrated in the penetration rate calculation using PLASTEAX database and Plastic Waste Baseline Report the plastic waste recovery for all polymer fractions is well below 20%. The same is submitted.<br>Therefore, the project activities do not compete with other collection activities. The availability of plastic waste is demonstrated by defining the baseline scenario and using the most recent publicly available data on plastic waste. Without the project activities, there would be mismanaged plastic waste, which would be at significant risk of entering the ocean. Thus, the TTS PWRP Recycling Instance does not divert plastic waste from any historically existing, legally recognized recycling activity. | Publicly available literature i.e., IUCN-EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country report Kenya and The Toxic Plastic Waste Trade – A case Study of of Muoroto Slum in Mombasa, Kenya, state that 92% of plastic waste produced in the Kenya is mismanaged and only 8% of the plastic waste is collected and recycled. Which demonstrate that enough quantity of unattended/ unrecycled material is available in the region.<br>Based on the findings, VVB confirms that the project activities do not compete with other recycling activities. |
| 11) Plastic waste that enters the project recycling facility but is not recycled or is lost during the recycling process (e.g., due to contamination) is | Plastic waste that enters the project recycling facility but is not recycled or is lost during the recycling process (e.g., | It was observed by VVB during the site visit to the recycling facility that the materials which are not |

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| managed in a way that does not include dumping on open land, in water bodies and/or at dumpsites; open burning; or incineration without energy recovery. Where a project can reasonably only access one of these excluded end destinations, the project proponent must demonstrate that the nature of the end destination is comparable to the plastic waste source and must provide justification for why the project is not reasonably able to access an alternative end destination. In all cases, open dumping of plastic waste onto open land or into water bodies is not permitted.<br>If the plastic waste that was not recycled in the facility or the waste from the recycling activities contain hazardous substances, the waste must be managed through environmentally and socially appropriate technologies and processes in accordance with relevant national, regional, or local regulations or guidelines. | due to contamination) is managed in a way that does not include dumping on open land, in water bodies and/or at dumpsites; open burning; or incineration without energy recovery. Contaminated plastic waste is either not accepted by the recycling facilities or is stored for later disposal by the authorized agency as per the relevant regulations.<br>Records are maintained by the TTS and invoices for the same are submitted. | recycled, or the waste materials left after recycling are being disposed by the authorized agency as per the relevant regulations. This has also been cross-checked through review of the sale invoice /06/ |
| **This methodology is not applicable under the following conditions:** | | |
| 12) The plastic waste to be recycled has been collected in and imported from other countries, except in either or both of the following circumstances: a) The project recycles plastic waste (using sustainable waste management practices) imported from a Least Developed Country (LDC) or Small Island Developing State (SIDS). b) The project imports plastic waste from other countries for further processing where there is insufficient plastic waste available in the exporting country to enable development of recycling infrastructure at the time of project validation. Project proponents must demonstrate the same through primary surveys or secondary literature available in the public domain and/or certified by a | This grouped project activity does not involve any import from other countries. All plastic waste is fully traceable. | As mentioned in the section 1.11 (Project Location) of JPD&MR v1.4 /01/ the grouped project activity does not involve any import from other countries. The source and end destination of the plastic waste is in Kenya.<br>Based on the review of documents viz. purchase invoice /06/ and interview conducted with stakeholders involved in project during onsite visit, VVB conforms that the statement made in the JPD&MR v1.4 /01/ is in line and project activities fulfils this eligibility criteria. |

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| competent authority. Where either or both of the above circumstances exist, a robust and transparent chain of custody from the source of plastic waste to the end destination of the project activity must be provided. | | |

### 2.4.3 Project Boundary

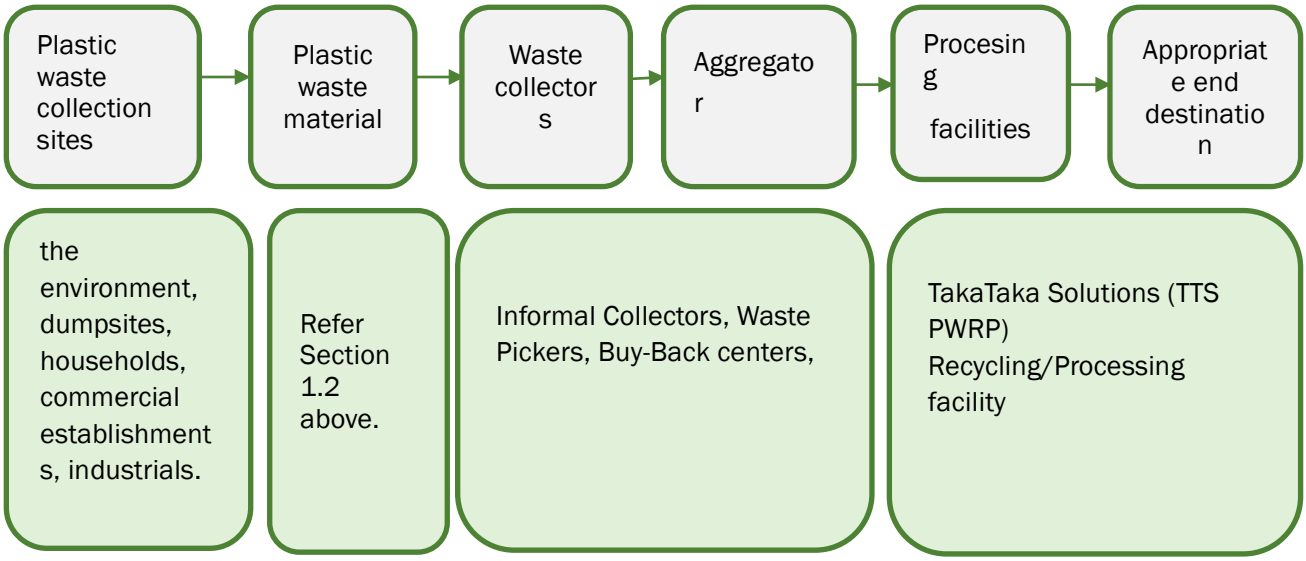
The Grouped Project boundary is as defined under Sections 5 of both Plastic Waste Collection Methodology PWRM 0001 v1.1 /B03/ and Plastic Waste Recycling Methodology PWRM 0002 v1.1 /B04/.

The grouped project boundary as described under section 3.4 of the Plastic Project JPD&MR v1.0 /01/ was assessed to be in conformity with the requirements of Sections 5 of both the PWRM 0001 v1.1 /B03/ and PWRM 0002v1.1 /B04/. The project boundaries were assessed as below.

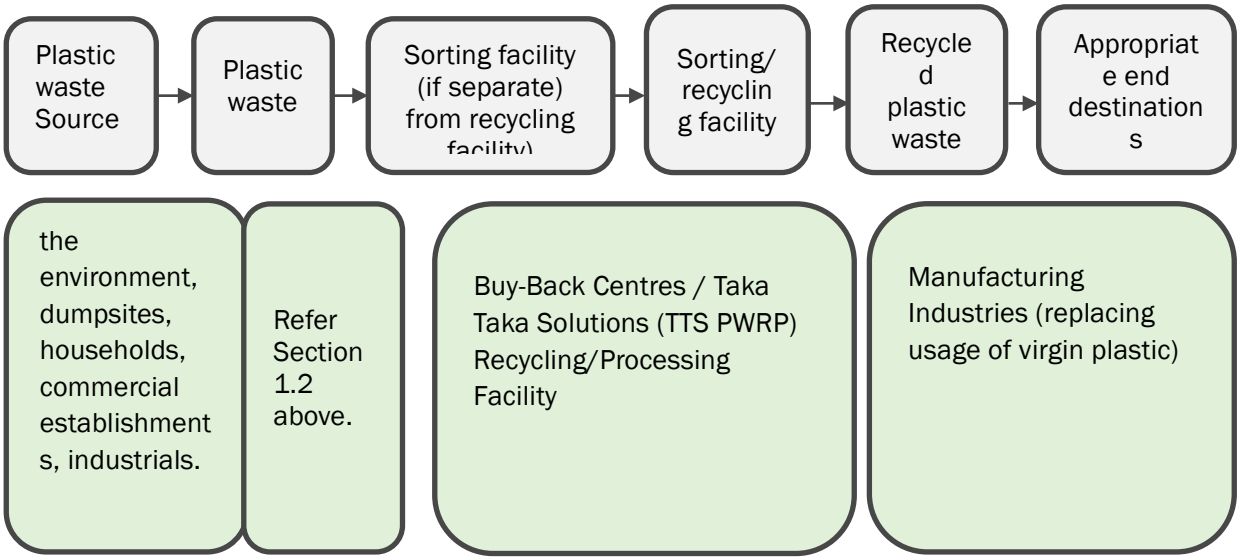
| Source | | Material Type | End-of-Life | Explanation |
|---|---|---|---|---|
| Baseline | Unregulated disposal sites | Other plastics (O) | General environment: public areas, streets, open dumpsites, unregulated and untreated landfill, open burning and leaking back into the environment, and incineration without energy recovery | Minimal to no collection activities depending on region. Plastic waste is mainly found in the environment. In Kenya, the landfill is an unsanitary landfill, regulated by the government, and the mismanagement rate is high, so, there is a chance of leakage of plastics back into the environment, and the incineration of waste is predominant in landfills, causing air pollution. |
| | | PVC | | |
| | | PP | | |
| | | PET | | |
| | | HDPE | | |
| | | LDPE | | |
| | | PS | | |
| | Environment | Other plastics (O) | | |
| | | PVC | Environment, possibly recycled or taken to a landfill | |
| | | PP | | |
| | | PET | | |
| | | HDPE | | |
| | | LDPE | | |
| | | PS | | |
| Project | Collection Instance through | Other plastics (O) | - | - |
| | | PVC | - | - |

| Source | | Material Type | End-of-Life | Explanation |
|---|---|---|---|---|
| | following collection channels<br>i) Buy Back Centres<br>ii) Material Recovery Facility<br>iii) Industrial Clients | PP | Collected and Recycled into pellets | Under Collection Instance 1 : Through single and combination of buy back centres ,MRFs and Industrial Clients, the collected polymers are diverted from the environment and sent to the Recycling Instance at Ehothia for mechanical recycling. |
| | | PET | Collected and Recycled into pellets | |
| | | LDPE | Collected and Recycled into pellets | |
| | | HDPE | Collected and recycled into pellets | |
| | | Other plastics (O) | - | |
| | Recycling Instance | PVC | - | - |
| | | PP | Collected and recycled into pellets | Under Recycling Instance, the plastic polymers are sorted, washed, dried and weighed and through mechanical recycling, and then turned into pellets, and sold for manufacturing units. The plastics which are collected but not recycled are sent to scientific landfills. |
| | | PET | Collected and recycled into pellets | |
| | | LDPE | Collected and recycled into pellets | |
| | | HDPE | Collected and recycled into pellets | |

**Project boundary diagram of collection methodology (PWRM0001)**




**Project boundary diagram of recycling methodology (PWRM0002)**




In order to assess the project boundary, VVB conducted interview with the stakeholders involved in the collection of material, recycling of collected waste and sale of the recycled material.

Based on the findings, VVB team determined that the project boundary consists of the plastic waste sources, sorting facilities, recycling facilities as well as entities that purchase recycled plastic waste and is therefore justified for the project and well defined in accordance with the methodologies PWRM0001 v1.1 and PWRM0002 v1.1.

### 2.4.4 Project Region

This is a grouped project activity and Kenya is the geographical boundary of the project.

Recycling activity:

The recycling facility for the project is in Ehothia, Kenya, and the geo coordinates of Ehothia is 1° 8' 26.2068" S 36° 43' 59.016" E. The project location and geographic boundaries are designated in the KML files attached as part of this document /07/.

**Collection activity**

The recycling facility for the project is scattered at thirteen (13) different locations in various City of Kenya and referred as 1st to 13th PAIs for collection activity. The details of all 13 PAIs of collection activities are as given in table. The project location and geographic boundaries are designated in the KML files attached as part of this document /07/.

| Collection Channal | Location | Latitude Longitude coordinates | Start Date |
|---|---|---|---|
| Buyback centre | Dandora | 1° 15' 1.26" S<br>36° 53' 40.884" E | 1/1/2022 |
| | Thika | 1° 4' 37.992" S<br>37° 7' 2.604" E | 1/1/2022 |
| | Kitengela | 1° 29' 35.88" S<br>36° 58' 2.928" E | 1/1/2022 |
| | Kisumu | 0° 8' 8.1492" S<br>34° 47' 45.6792" E | 7/1/2022 |
| | Mlolongo | 1° 23' 24.936" S<br>36° 58' 32.88" E | 9/1/2023 |
| | Nakuru | 0°16' 42.8"S<br>36°02' 25.3"E | 9/1/2023 |
| | Kakuma | 3° 46' 2.3808" S<br>34° 49' 20.8596" E | 6/1/2023 |
| | Mombasa | 3° 49' 32.1276" S<br>39° 40' 51.24" E | 1/1/2022 |
| Material Recovery Facility (MRF) | Ehothia | 1° 8' 26.2068" S<br>36° 43' 59.016" E | 1/1/2022 |
| | Lusigetti | 1° 16' 39.954 S<br>36° 36' 15.044 E | 1/1/2022 |
| | Mombasa | 4° 1' 24.5136" S,<br>39° 40' 52.86" E | 1/12/2023 |
| Industrial Client | IC-01* | 1° 21’ 48.715”,<br>36° 54”41.00” | 1/1/2022 |
| | IC-02* | 1° 14’ 7.587”,<br>36° 52’ 30.652” | 1/1/2022 |

Each of the collection and recycling centres of Project Activity Instance has been specified using a single geodetic coordinate as required under section 3.7.1 of the Plastic Waste Reduction Standard v1.0 /B01/. Additional geographic information (names of the locations of the instances) has also been provided in the JPD&MR v1.0 /01/.

### 2.4.5 Baseline Scenario

The condition of applicability of the baseline scenario, as described in Section 6 of the methodology PWRM0001 v1.1 /B03/, is, "without project implementation, the plastic waste would have remained in the environment, been disposed of by open burning, been incinerated without energy recovery and/or disposed of in a dumpsite".

The condition of applicability of the baseline scenario, as described in Section 6 of the methodology PWRM0002 v1.1 /B04/, is, "without project implementation, the plastic waste would not have been recycled".

Both of the above methodologies use the project method to determine the crediting baseline IUCN-EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country report Kenya.

The plastic waste collection and recycling baseline is the existing plastic use consumption and plastic waste generation and limited capacity for solid waste management by both the national and sub-national governments.

VVB reviewed the literature cited by PP in the section 3.5 of the JPD&MR i.e. IUCN-EA-QUANTIS, 2020, National Guidance for plastic pollution hotspotting and shaping action, Country report Kenya and The Toxic Plastic Waste Trade – A case Study of of Muoroto Slum in Mombasa, Kenya. Which state that 92% of plastic waste produced in the Kenya region is mismanaged and only 8% of the plastic waste is collected and recycled. Based on the review, assessment team determined that the documentation evidence /13/ were relevant, correctly cited and interpreted in the project description. The baseline scenarios were also determined through on-site interviews with the representative of the manufacturing facilities as well as project proponent staff.

The VVB team therefore confirm that the baseline scenarios for the collection and recycling of plastic wastes adopted in the project activity and described in Section 3.5 of the JPD&MR v1.0 /01/ complies with the requirements of the applied methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/.

### 2.4.6 Additionality

The project proponent has demonstrated additionality of the grouped project under Section 3.6 of the Plastic Project JPD&MR V1.0 /01/ in accordance with the requirements of the methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/. The project proponent has demonstrated regulatory surplus in accordance with the requirements of both of the applied collection and recycling methodologies.

In order to verify the statement given in the JPD&MR, VVB reviewed the Environmental Management and Coordination Act, 1999 and Sustainable Waste Management Act notified in 2022, and found that both of these lows not enforce PP for the collection and recycling of the plastic waste.

Based on the findings, validation and assessment team determined that the grouped project is not mandated by law, statute, or regulatory requirement to engage in the collection and recycling of the plastic waste materials. The project proponent is engaging in this project activity under a voluntary basis and is under no law or statute mandated to engage in the collection and recycling of plastic wastes.

The grouped project does not fulfil the conditions of Step 2 of the decision tree for the demonstration of additionality under both PWRM0001 v1.1 /B03/ and PWRM0002 v.11 /B04/ methodologies. The grouped project is therefore not included in the positive list. However, the project proponent has demonstrated additionality under Step 3a (Penetration Rate) in accordance with the decision trees for demonstrating additionality as illustrated in methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/. The project proponent, under Section 3.6 of both PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/ methodology, has assessed the penetration rates of the project activity.

PP had calculated the penetration rate for the collection activities at for each material type using data available in the PLASTEAX 2019 database of Kenya for total plastic waste being generated and collected for the respective material type. Based on the calculation made for penetration rate (%), which is the ratio between plastic waste collection (tons/year) and plastic waste production (tons/year), the penetration rate claimed is LDPE (Rigid + Flex.) = 19 %, PP = 15%, HDPE (Flex.) = 2%, PET = 9%, PS = 3% & EPS = 3% respectively.

Further, for the calculation of the penetration rate for the recycling activity PP used the data available in the PLASTEAX 2019 database of Kenya for the total plastic waste being generated and recycled and claimed the penetration rate LDPE (Rigid + Flex.) = 16 %, PP = 13%, HDPE (Flex.) = 4.6%, PET = 7%, PS = 0% & EPS = 0% respectively.

In addition, the additionality criterion has also been included in the eligibility criteria under the grouped project under section 1.3.1 of the JPD&MR V1.1 /01/. Each project activity shall be required to meet the eligibility criteria to be considered for inclusion in the grouped project.

To assess the claim made for the penetration rate of collection and recycling activities, VVB reviewed the calculation made by the PP and verified the data available in PLASTEAX 2019 database of Kenya during the zoom meeting (as the copyright has been purchased by PP and is with them). It was found that the formula used for calculation is as per the methodologies and source of data is authentic.

Further the same was confirmed based on the review of the National Guidance for Plastic Pollution Hot spotting and Shaping Action, 2020 Report, Which state that states that the penetration rate of recycling activities is less than 20%. Specifically, 8% of total collected plastic waste recycled in the host country and 92% of plastic waste remains unmanaged. Thus, assessment team determined that the penetration rate is less than 20%.

Based on the findings of the assessment of the additionality, VVB can conclude that:

a) The project has correctly followed the procedure for demonstrating additionality as lined out in Plastic Waste Reduction Standard v1.0, and thus complies with the additionality requirements of the applied methodologies Plastic Waste Collection Methodology /B03/ and Plastic Waste Recycling Methodology v1.1 /B04/.

b) Additionality is successfully demonstrated for plastic waste collection and recycling activities in both the activities as covered under the project.

### 2.4.7 Estimated Collected and/or Recycled Plastic Waste

As per the plastic waste standard, the quantification of baseline for collected, and recycled plastic waste of all the project instances to be calculated in accordance with the formulae provided under Sections 8.1 of the methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/.

Based on the review of the documents, VVB confirmed that the methods and equations provided in the section 4.1 of the Plastic Program JPD&MR v1.0 /01/ for the estimation of baseline of collection and baseline of recycling of plastic wastes are in line with the respective methodologies.

The parameters and data used in the equations as presented in the Plastic Project JPD&MR v1.0 /01/ and other relevant documents were compared against the requirements of the respective methodologies. To ensure consistency of the application of the equations, a comparison between the equations presented in the Plastic Project JPD&MR v1.0 /01/ and against those in the spreadsheets /02/ and methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/ was carried out.

**Estimated quantity of plastic waste collected at all 13 Project Activity Instances (PAIs) of collection activity.**

| Year | Estimated baseline collected plastic waste (tonnes) | PET Collected (Tonnes) | PP Collected (tonnes) | HDPE Collected (tonnes) | LDPE Collected (tonnes) | PS | EPS | Total Estimated project net collected plastic waste (tonnes) |
|---|---|---|---|---|---|---|---|---|
| Year 1 | 0 | 71 | 1495 | 226 | 591 | 0 | 0 | 2383 |
| Year 2 | 0 | 181 | 3793 | 574 | 1500 | 0 | 0 | 6048 |
| Year 3 | 0 | 641 | 13397 | 2029 | 5299 | 0 | 0 | 21366 |
| Year 4 | 0 | 739 | 15458 | 2342 | 6114 | 0 | 0 | 24653 |
| Year 5 | 0 | 838 | 17519 | 2654 | 6929 | 0 | 0 | 27940 |
| Year 6 | 0 | 936 | 19579 | 2966 | 7744 | 0 | 0 | 31225 |
| Year 7 | 0 | 936 | 19579 | 2966 | 7744 | 0 | 0 | 31225 |
| **Total** | **0** | **4342** | **90820** | **13757** | **35921** | **00** | **00** | **144840** |

**Estimated quantity of plastic waste recycled at 1st Project Activity Instances (PAIs) of recycling activity.**

| Year | Estimated baseline recycled plastic waste (tonnes) | PET Recycled (tonnes) | PP Recycled (tonnes) | HDPE Recycled (tonnes) | LDPE Recycled (tonnes) | PS | EPS | Total Estimated project net recycled plastic waste (tonnes) |
|---|---|---|---|---|---|---|---|---|
| Year 1 | 0 | 0 | 954 | 268 | 109 | 0 | 0 | 1331 |
| Year 2 | 0 | 101 | 2421 | 678 | 276 | 0 | 0 | 3476 |
| Year 3 | 0 | 357 | 8550 | 2396 | 977 | 0 | 0 | 12280 |
| Year 4 | 0 | 412 | 9865 | 2765 | 1128 | 0 | 0 | 14170 |
| Year 5 | 0 | 467 | 11180 | 3134 | 1278 | 0 | 0 | 16059 |
| Year 6 | 0 | 522 | 12495 | 3503 | 1429 | 0 | 0 | 17949 |
| Year 7 | 0 | 522 | 12495 | 3503 | 1429 | 0 | 0 | 17949 |
| **Total** | **0** | **2381** | **57960** | **16247** | **6626** | **00** | **00** | **83214** |

### 2.4.8 Methodology Deviations

There are no methodology deviations applied in this grouped project.

### 2.4.9 Data and Parameters Available at Validation

In order to ensure compliance with the formats of PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/, the data and parameters were verified throughout project validation. All data and parameters are shown within the Section 4.1 of the Plastic Project JPD&MR v1.0 /01/ of "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya".

| Sr. No | Parameter | Unit | Value | Assessment |
|---|---|---|---|---|
| 1 | $B_{collected,d,y}$ | Tonnes/year | 0 | The grouped project is a new project and hence $B_{collected,d,\ y} = 0$ in accordance with equation 2 of the methodology PWRM 0001 v1.1. |
| 2 | $B_{recycled,i,y}$ | Tonnes/year | 0 | The grouped project is a new project and hence $B_{recycled,i,y} = 0$ in accordance with equation 2 of the methodology PWRM 0002v1.1. |

The validation and verification assessment team determined that the parameter and data (values) used to estimate plastic waste collection and plastic waste reduction under the grouped project and as mentioned in Section 4.1 of the Plastic Project JPD&MR v1.0 /01/ are appropriate and meet the requirements of the methodologies PWRM 0001v1.1 and PWRM 0002v1.1.

### 2.4.10 Data and Parameters Monitored

The data and parameters were checked in the monitoring report corresponding with the formats of Plastic Waste Collecting Methodology PWRM0001 v1.1 /B03/ and Plastic Waste Recycling Methodology PWRM0002 v1.1 /B04/. All data and parameters are shown within the Plastic project JPD&MR v1.0 /01/ of "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya".

| Sr. No | Parameter | Unit | Value | Assessment |
|---|---|---|---|---|
| 1 | $P_{collected, d, y}$ | Tonnes/ year | 1518 | The quantity of plastic waste collected was verified through the review of the inventory being maintained at the plastic waste collection center. The same was further cross verified by comparing the quantity mentioned in the inventory for material at receiving area of the recycling facility and purchased invoices of the waste material |
| 2 | $P_{recycled\ i,y}$ | Tonnes/ year | 260 | To verify the quantity of plastic waste recycled, VVB reviewed the sale invoices and inventory being maintained for the recycled materials. The same was cross verified by comparing the quantity mentioned in the inventory with running hours of the machine. |
| 3 | Sorting output | Tonnes/ year | 515 | In order to verify the sorting output, VVB had reviewed the inventory being maintained for the sorted material and same was cross verified by comparing the quantity mentioned in the inventory with material being recycled. |
| 4 | Recycling input | Tonnes/ year | -- | The weight of all inputs to the recycling process, including categories of plastic waste type i used in the recycling process, is measured using calibrated weighing scales. Data is captured in the onsite logbooks at the facility. |
| 6 | End destination for non-recycled plastic waste & non-plastic waste | Tonnes/ year | Accredited third parties. | The end destination non-recycled plastic waste & non-plastic waste was verified through the review of the contract/20/ with third party for disposal. |

The validation and verification assessment team determined that the monitored parameters and data used to estimate plastic waste collection and plastic waste reduction under the grouped project and as mentioned in Section 4.1 of the Plastic Project JPD&MR V1.0 /01/ are appropriate and meet the requirements of the methodologies PWRM0001 v1.1 /B03/ and PWRM0002 v1.1 /B04/.

### 2.4.11 Monitoring Plan

The project proponent had implemented well established quality management procedures for the effective management of the data and information. PP has developed methods for measuring, recording,

storing, aggregating, collating, and reporting data and parameters. During on-site visit it was observed by VVB that throughout the monitoring period, all parameters outlined in Section 5.2 of Plastic Project JPD&MR v1.0 /01/ was meticulously tracked and recorded. It was also observed that, to measure the quantity of each material type recycled under the project before dispatching to the next stage and prior to any manufacturing within the recycling facility, calibrated weighing scales /12/ is being used. During on-site visit through the interviews of stakeholders, it was confirmed that the project proponent had designated procedures for recording, compiling, and analyzing the data, parameters, and other pertinent information to quantify and report the collected and recycled plastic waste in the project scenarios. During on-site visit through the interviews of stakeholders, it was confirmed that adequate training is being provided to plant personnel to ensure proper monitoring of the mentioned parameters. During on-site visit, the Management Representative of PP demonstrated that as per the requirements of Plastic Waste Reduction Standard v1.0 /B01/ all monitoring data are being electronically archived and ensured that data will be securely stored for a minimum of two years after the project's crediting period concludes. During the on-site visit it was observed that PP had Quality assurance and quality control (QA/QC) procedures in place, including training and cross-checking of input data, had been applied to enhance confidence in the accuracy of all measurements and calculations.

The monitoring plan was checked by VVB, using the following methods:

- Traceability check to cross reference volumes recycled.

- Check of documentation and ledger to see whether all parameters were included.

- site visit to check procedures and information flow.

Monitoring plan complies with all points described in the methodology.

# 3 VERIFICATION FINDINGS

## 3.1 Implementation Status of the Project Activity

"Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya" started on 01/01/2022 in Kenya. Under the project plastic waste is being collected at all the 13 Project Collection Instances scattered at different locations within Kenya and collected waste is being supplied to the 1st Project's Recycling Instance at Ehotia, Kenya. At 1st Project Recycling Instance, Pelletizer units 1 and 2 have been installed and in operation since 01/01/2022 and 01/07/2022, respectively. Pelletizer 3, 4 and 5 to be commissioned before 31/12/2023.

The grouped project was assessed at the time of the verification exercise to check that weather the project was effectively and fully implemented in consistence with the information provided by the project proponent as contained in the JPD& MR v1.0 /01/. The monitoring system was deemed appropriate and suitable for the grouped project. The verification team did not identify and material discrepancy between the actual monitoring system and the monitoring plan as set out in the Plastic Program JPD& MR v1.0 /01/ and the applied methodology.

### 3.1.1 Description of Next Stage (Optional)

The finished product, plastic pellets are sold to local manufacturers to manufacture recycled plastic materials. Non-recyclable waste materials are either composted (organic wastes), incinerated (bio-medical wastes), sold to 3rd party recyclers (e.g., glass, non-recyclable plastics, metals etc.) or transferred to the landfill.

## 3.2 Quantification of Collected and/or Recycled Plastic Waste

### 3.2.1 Accuracy of Calculations

A traceability analysis was performed to determine the accuracy of the calculations /02/. As the part of this analysis, the quantity of recycled plastics was cross checked by comparing the quantities mentioned in the Joint PD&MR v1.0 /01/ and Plastic Crediting Calculation spreadsheet /02/ provided by the PP. Apart from the same was also analyse during the on-site visit through interviews of the staff involved in the recycling of plastic waste by the VVB, and comparing the data provided by the PP with the records available at TTS facility. The collected, recycled plastic waste was also matched with the sold recycled plastic product quantity. Based on the stock statement shared by the PP, VVB conforms that the data is reliable.

Further, during the validation and verification process it was observed that the calibration certificate weighing balance being used for the monitoring the quantity of collected waste at Dandora collection facility was overdue by 14 days in the month of April 2022. In order to verify that error factor is considered for the collected quantity of the waste during this period, VVB reviewed the calibration certificates and calculations. Based on the findings of the assessment, VVB confirms that:

a) PP had calculated the Error Factor as per the CDM Guidelines "GUIDELINES FOR ASSESSING COMPLIANCE WITH THE CALIBRATION FREQUENCY REQUIREMENTS."

b) PP had adopted conservative approach for the calculation of the error factor, and applied error factor for the entire month instead of 14 days.

c) Error factor was applied based on the calibration certificates for project weigh scales and the maximum deviation noticed for the month of April 2022 of the Monitoring Period when scales were recalibrated total deduction of 2.14 tonnes of collected plastic waste has been made to account for it.

The approach above as assessed is deemed appropriate and acceptable.

### 3.2.2 Quality of Evidence to Determine Collected and/or Recycled Plastic Waste

In order to ensure the quantity of plastic waste collected and recycled, the quantity of plastic waste is being measured at different stages. The plastic waste is being weighed using calibrated weighing balance /12/ at the following stages,

i. after receiving the collected waste at Project Collection Instances

ii. after segregation of different types of plastic waste

iii. after bailing the different types of plastic waste in different bags

iv. before recycling

v. after recycling

During the on-site visit it was observed that TTS staffs is handling data carefully at every stage, and this was also cross checked with the logbooks shared by PP where they maintain all the data /14/ and the sale invoice for the collection /06/.

In order to verify the reliability of the quantity of plastic waste collection and recycling, VVB reviewed the monitoring records /14/ being maintained by TTS at every stage i.e., at the collection centre, at the material receipt area of recycling facility, sale invoices and found consistency in the reporting across the different databases. Further, the same was verified through matching the quantity mentioned in invoices/ receipts from collectors/ Collection centre, inventory available for waste receipt/ recycling materials and sale invoices for the recycled mater. In addition, the weighing scales used are regularly calibrated to ensure accurate measurement of the collected and recycled waste this was cross checked by the calibration certificate of the weighing scale /12/ provided by the PP.

Based on the observations made during the assessment process, VVB conforms that the evidence shown in support of the waste collected and recycled is found to be reliable.

# 4 VALIDATION AND VERIFICATION CONCLUSION

Carbon Check (India) Private Limited (CCIPL) has conducted the joint validation and verification of the project activities "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya". Validation was conducted for the crediting period from 01/01/2022 to 31/12/2028 whereas the verification covers credits for the period of 01/01/2022 to 31/08/2022. In line with the paragraph 4.1.2 (1) of Plastic waste reduction standard v1.0, the reasonable level of assurance is applied considering the service is joint validation and first verification.

The review of the project documents, including the project description and monitoring report /01/ and additional documentation (see Appendix 1) combined with the interviews that were done with stakeholders, has provided enough evidence to the Validation and verification team to determine that the stated criteria are met.

During the audit all the Corrective Action Requests (CARs) or Clarification Requests (CL) were raised and successfully closed.

Carbon Check (India) Private Limited (CCIPL) has verified and hereby certifies that the project activity "Plastic Waste Recycling & Improving Waste Picker Livelihoods in Kenya".

a) has correctly described the Project Activity in the Joint PD and MR /01/ including the applicability of the approved methodology PWRM0001- Plastic waste collection methodology, version 1.1 /B03/ and PWRM0002- Plastic waste recycling methodology, version 1.1 /B04/ and meets the methodology applicability conditions, is additional and complies with the monitoring methodology, has appropriately conducted local consultation process.

b) complies with the criteria outlined in the Plastic Waste Reduction Standard v1.0 /B01/

c) Supporting documents provided are complete and verifiable.

d) is not likely to cause any net-harm to the environment and/or society and complies with the environmental and Social Safeguards Standard,

e) The equipment used to measure the collected or recycled plastic waste are reliable and calibrated in accordance with manufacturing guidelines.

f) The estimated quantity for waste collected/recycled is accurately calculated.

Further, PP has not considered the quantity of material type PET, being stored to make inventory for recycling facility till the installation of the appropriate pelletizer used for its recycling in the plastic credit calculation.

The Net total amount of plastic waste collected, and plastic waste recycled during the verification period is 1518 tonnes and 260 tonnes, respectively.

Waste Collection Credits and Waste Recycling Credits are claimed for current monitoring period and vintage of 2022 for the monitoring period from 1st January 2022 to 31st August 2022.

**Verification period: 01-January-2022 to 31-August-2022**

Plastic Waste Collected at all 13 **Project Collection Instance** during Monitoring Period (Tonne)

Material Type: Polypropylene (PP)

| Year | Baseline collected plastic waste (tonnes) | Project collected plastic waste (tonnes) | Net collected plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 1000 | 1000 |
| Total | 0 | 1000 | 1000 |

Material Type: High-density polyethylene (HDPE)

| Year | Baseline collected plastic waste (tonnes) | Project collected plastic waste (tonnes) | Net collected plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 147 | 147 |
| Total | 0 | 147 | 147 |

Material Type: Low-density polyethylene (LDPE)

| Year | Baseline collected plastic waste (tonnes) | Project collected plastic waste (tonnes) | Net collected plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 371 | 371 |
| Total | 0 | 371 | 371 |

Table2: Summary- Net collected plastic waste (tons) is of PP, HDPE & LDPE

| Year | Baseline collected plastic waste (tonnes) | Project collected plastic waste (tonnes) | Net collected plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 1518 | 1518 |
| Total | 0 | 1518 | 1518 |

Instance-wise detailed quantity for the plastic waste collected for net collected plastic waste is provided in Appendix – 6.

Plastic waste recycled at 1st **Project Recycling Instance** during Monitoring Period (Tonne)

Material Type: Polypropylene (PP)

| Year | Baseline recycled plastic waste (tonnes) | Project recycled plastic waste (tonnes) | Net recycled plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 192 | 192 |
| Total | **0** | **192** | **192** |

Material Type: High-density polyethylene (HDPE)

| Year | Baseline recycled plastic waste (tonnes) | Project recycled plastic waste (tonnes) | Net recycled plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 49 | 49 |
| Total | **0** | **49** | **49** |

Material Type: Low-density polyethylene (LDPE)

| Year | Baseline recycled plastic waste (tonnes) | Project recycled plastic waste (tonnes) | Net recycled plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | 0 | 19 | 19 |
| Total | **0** | **19** | **19** |

Table3: Summary- Net recycled plastic waste (tons).

| Year | Baseline recycled plastic waste (tonnes) | Project recycled plastic waste (tonnes) | Net recycled plastic waste (tonnes) |
|---|---|---|---|
| 01-January-2022 to 31-August-2022 | **0** | 260 | 260 |
| Total | **0** | **260** | **260** |

# APPENDIX 1: REFERENCE DOCUMENTS

| S. No. | Document |
|---|---|
| /01/ | TTS_JPD&MR Version 1.0 dated 21/11/2022<br>TTS_JPD&MR Version 2.0 dated 06/09/2023<br>TTS_JPD&MR Version 3.0 dated 20/04/2024<br>TTS_JPD&MR Version 4.0 dated 16/05/2024<br>TTS_JPD&MR Version 5.0 dated 06/06/2024 |
| /02/ | Waste Collection Credits & Waste Recycling Credits Sheet |
| /03/ | Documental evidence for the state date of the Project |
| /04/ | Business Licences |
| /05/ | Agreement between Taka Taka Solution Ltd & South Pole Carbon Asset Management Ltd. |
| /06/ | Evidence for Purchase and Sale records and Invoices. |
| /07/ | KML files |
| /08/ | Evidence of Project Commissioning documents |
| /09/ | Evidence of Project Ownership documents |
| /10/ | Taka Taka Solution Ltd Policies and Procedures |
| /11/ | Evidence for the Project Scientific literature |
| /12/ | Weighing Scale calibration records |
| /13/ | NEMA licenses for the collection and recycling setup |
| /14/ | Evidence of the Production Log books |
| /15/ | Employees contract documents |
| /16/ | Contracts between the Taka Taka Solutions Ltd and Plastic pellets producer |
| /17/ | EIA regulation documents |
| /18/ | Consent form of Municipalities for collection and recycling |
| /19/ | Local Stakeholders consultation documental evidence |
| /20/ | Contracts with the 3rd party byproducts disposals (other than plastic waste) |
| /21/ | Environment Audit Report |
| /22/ | Organizational Structure and Competence of the personals handling project |
| /23/ | Financial statement documents |
| /24/ | Waste Sludge management certificate |
| /25/ | Energy consumption records of the recycling facility |
| /26/ | Documents and Photos of the Operations |
| /27/ | Additionality documental evidence |
| /28/ | VVB Site information email communication evidence |
| /29/ | VVB Contract with the Taka Taka Solutions Ltd., |

# APPENDIX 2: BACKGROUND DOCUMENTS

| Ref | Documents |
|---|---|
| /B01/ | Plastic Waste Reduction Standard v1.0 |
| /B02/ | Plastic Program Guide v1.0 |
| /B03/ | PWRM0001_Plastic Waste Collection Methodology v1.1 |
| /B04/ | PWRM0002_Plastic Waste Recycling Methodology v1.1 |
| /B05/ | ISO 14064-3: 2019 |

# APPENDIX 3: CLARIFICATION AND CORRECTIVE ACTION REQUESTS

**Table 1. CL from this Validation**

| CL | 01 | Section no. | 1.6 | Date: 09/04/2023 |
|---|---|---|---|---|
| **Description of CL** | | | | |
| PP shall provide documentary evidence to demonstrate the ownership of both instance 1 and 2 by TakaTaka Solutions. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| In line with the Plastic Standard's Section 3.4, the PP submits the required evidence to demonstrate ownership for both the Collection and Recycling Instances. These include:<br>1) Electricity Bills<br>2) NEMA Licenses<br>3) Operations License by Kenyan Government<br><br>Furthermore, Section 1.6 and Appendix 8.1 has been updated to reflect the same. | | | | |
| **Documentation provided by project participant** | | | | |
| 1) Electricity bills of project site<br>2) NEMA Licenses for operations<br>3) Operations License | | | | |
| **VVB assessment** | | | | **Date:** 15/09/2023 |
| VVB has reviewed the provided documentary evidence Electricity bills, NEMA licenses and operational permits by the Kenyan government and confirms the ownership of the instance 1 & 2 is Taka Taka Solutions.<br><br>Hence the CL 01 has been closed. | | | | |

| CL | 02 | Section no. | 1.7 | Date: 09/04/2023 |
|---|---|---|---|---|
| **Description of CL** | | | | |
| PP shall provide documentary evidence to demonstrate that the start date of the grouped project activity is 01/01/2022.<br>Furthermore, PP shall also provide the start date of both the collection and recycling facilities separately as well. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| In line with the Plastic Standard Section 3.5, the PP submits the evidence, which includes, the electricity bills, production logbooks and commissioning certificate for the first pelletizer machine under the TTS project.<br><br>Please be clarified, that the pilot batches started from 1st January 2022, the full-scale production had started from 1st March 2022 onwards. Therefore, PP has considered 1st January 2022 as the project start date for the TTS PWRP.<br><br>Prior to 1st January 2022, there were no pelletiser machines installed and collection activity volumes were owned by repurpose Global under contract with TTS. Documentary evidence in the form of contract between TTS and repurpose Global prior to 1st January 2022 is also attached. Furthermore, the collection had started earlier but was not claimed by Taka Taka Solutions for Plastic Credits, as | | | | |

they did not have ownership of the Plastic Recovery Volumes. Therefore, the collection start date under the current programme is formeds as 1st January 2022 in line with clarification from the VERRA Standard for collection operation start date.

Hence, the start date for collection and recycling is considered from the date of operation of Pelletiser machines that is 1st January 2022. Please refer to the submitted electricity bills which are evidence that pilot production started from 1s January 2022 along with the production log books.

**Documentation provided by project participant**

1) Signed supervisor log books (already demonstrated)
2) Electricity bills from January 2022
3) Electricity bills/invoice from amount paid to waste workers
4) TK006 contract (**confidential)**
5) VERRA Clarification Email in PDF format

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

Research VVB has reviewed the provided statement, and the provided documents conforms the state date of the project w.r.t the electricity bills and the clarification email between the Verra and PP.

Hence the CL 02 has been closed.

| **CL** | 03 | **Section no.** | 2.1.1 / 2.1.2 /2.1.3 | **Date:** 09/04/2023 |
|---|---|---|---|---|

**Description of CL**

In the referred section of PLASTIC PROGRAM JPD&MR (v01.1), it has been stated that the stakeholders have been identified through on-line research, networking and word of mouth. PP shall explain the following:

1. How the adopted approach for stakeholder identification is appropriate considering the type and geographical expanse and types of people involved in or impacted by the project activity.
2. Appropriateness of the methods used to invite stakeholders, solicit comments and feedbacks appropriate to the type of stakeholders and geographical extent of the grouped project activity.
3. PP shall also explain how the identified groups of stakeholders are appropriate and relevant groups as the identified groups don't include stakeholders like local government bodies, village associations and buyers of recycled pellets.

Furthermore, PP is requested to provide the detailed stakeholder consultation meeting report which shall include means of invitation, list of invitees, attendance sheet, comments, and feedbacks received, presentation made by PP etc.,

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

With reference to the clarifications, please find the explanation below:

1) With reference to the Plastic Standard's 3.13.1 and 3.13.2 the PP has identified the stakeholders based on the Plastic Standard's guidelines on identification of relevant stakeholders. Considering the scope and nature of the TTS Informal waste worker livelihoods programme, the chosen methods specifically focused on
   a) Identifying the **relevant informal waste workers and their expansive networks based around the collection and recycling instances as the key stakeholders**.
   b) Local projects affected the populace.

c) local NGOs and Government Officials

d) Kenyan Plastic Waste Business Associations and their affiliates.

This is consistent with the key objectives of the TTS Plastic Waste Recycling and Improving Waste Picker Livelihoods in Kenya Project.

2) The methods used to invite the stakeholders included printed invitations posted at key locations frequented by stakeholders, direct message invitations over electronic means and word of mouth messages spread across the identified informal waste worker networks. The Modes of Invitation were specifically selected to ensure maximum coverage of identified stakeholders. As many people in Nairobi and Kenya are still unable to read or have limited access to electronic and print media it was decided to ensure that word of mouth messages be spread from the informal waste worker networks to ensure maximum waste workers were invited and able to participate in the proceedings of the Local Stakeholder Consultation. For the printed and electronic invitations, these were designed to attract the widest reach for relevant stakeholders and were placed strategically and shared with the relevant formal stakeholders.

3) As explained above, the identified group of stakeholders includes direct and indirect project affected populace. Also the invitation modes were adopted to get the maximum coverage from the vulnerable category of informal waste workers, local populace residing near the project vicinity and also the local NGOs and local Government bodies by means of public notices and everyone was free to participate in the local LSC. LSC was well attended by Local Community Leaders, Recyclers Associations which represented the Buyers and relevant bodies.

Please find attached the LSC Attendance list with the relevant attendees and the respective proofs and photographs of the same.

**Documentation provided by project participant**

1) LSC MoM where inputs from stakeholders were taken.
2) Attendance sheet
3) PPT used to explain the project
4) List of attendees
5) Invitations (email, messages and printed messages stuck in prominent locations)
6) Feedback forms

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

PP has furnished clear explanations regarding stakeholder identification methods and has supplied stakeholder consultation materials such as photographs, invitations, PowerPoint presentations, attendance records, and feedback forms. VVB has diligently examined the documents and the identification process, affirming that the stakeholder consultation aligns seamlessly with Verra's rules and requirements.

Hence the CL03 has been closed.

| **CL** | 04 | **Section no.** | 2.1.3 | **Date:** 09/04/2023 |
|---|---|---|---|---|

**Description of CL**

Whereas consultations between the project proponent and stakeholders regarding the project activity was carried out on 05.08.2022 and documented under Section 2.1.3 of PLASTIC PROGRAM JPD&MR

(v01.1), there was no objective evidence to demonstrate that a plan on continued communication and consultation between the project proponent and project stakeholders/stakeholder groups had been put in place. Moreover, it was not clear how inputs from the stakeholders were considered and subsequently influenced the project design and implementation.
Section 3.13.9 of the Plastic Waste Reduction Standard v1.0 requires that a plan on continued communication and consultation between the project proponent and stakeholder groups about the project and its impacts be developed and described in the project description.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

Please be clarified that during the LSC the continuous communication and consultation was emphasized and Grievance mechanism was explained along with its procedure to register the feedback at point of time during the crediting period. TTS has kept registers at all project Collection Instances and Recycling Instance. Further, the project proponent works closely with the informal waste workers as well as other stakeholders to solicit their inputs and issues for resolution as updated within the referred section of the JPD&MR. The Feedback and Grievance can be registered using the email maintained on PP's website, telephonic mode and written in Grievance Register installed for all project Collection and Recycling Instance.

This is in line with the guidance under the plastic standard 3.13.5 Furthermore, as demonstrated during OSV, the project proponents have installed grievance registers at all nodes of the collection instance and prominently displayed at the recycling facility at Ehothia Recycling Facility based on Standard Operating Procedure for the same.

Regular outreach and communication is conducted by TTS team members and this is inline with Plastic Standard's Section 3.13.9.

**Documentation provided by project participant**

LSC PPT
Images of Grievance registers from OSV
SoP for Continuous Communication with Stakeholders

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has assessed the clarification provided by PP and has furnished supporting evidence concerning the availability of grievance registers at collection and recycling facilities. Additionally, VVB has outlined the Standard Operating Procedures (SoPs) for maintaining ongoing communication with stakeholders, offering a detailed explanation during the local stakeholder consultation.

Hence the CL 04 has been closed.

| **CL** | 05 | **Section no.** | 2.1.5 | **Date:** 09/04/2023 |
|---|---|---|---|---|

**Description of CL**

PP shall explain how the measures as described provided in the referred section of PLASTIC PROGRAM JPD&MR (v01.1), are in line with the requirement of section 3.19 of the Plastic Waste Reduction Standard (v4.4), which requires that a plan for Continued Consultation and Adaptive Management shall be developed and described in the project description and implemented to continue communication and consultation between the project proponent and all stakeholder groups about the project and its impacts.

Furthermore, as the project activity is already implemented and under operation, the Continued Consultation and Adaptive Management shall be provided to the VVB for assessment.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

As explained in above clarification, it is submitted that the PP, TTS, has established a continuous consultation and adaptive management mechanism along with grievance redressal mechanism to maintain the continued consultation & adaptive management requirement of standard under Section 3.13.9 of the Plastic Standard.

PP has explained the same during the LSC and the TTS management team works closely with the stakeholders involved in this project, especially the informal waste workers. Under the project, the TTS project officers routinely interact with the informal waste workers and other stakeholders to gauge their support and feedback for the project.

This is in line with the requirement from the VERRA Plastic Standard.

**Documentation provided by project participant**

1) LSC MOM
2) Grievance/feedback Register or Continuous engagement plan (Complaint/feedback Box)
3) Images of the same

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has assessed the response submitted by PP and, after a review of the provided evidence, can confirm that PP communicated the continuous communication process during the LSC. The TTS management team maintains a close working relationship with project stakeholders, with a special focus on informal waste workers. Within the project framework, TTS project officers engage regularly with informal waste workers and other stakeholders to assess their backing and gather feedback for the project.

Hence the CL05 has been closed.

| **CL** | 06 | **Section no.** | 2.1.10 | **Date:** 09/04/2023 |
|---|---|---|---|---|

**Description of CL**

Section 2.1.10 of the PLASTIC PROGRAM JPD&MR (v01.1), in compliance with 3.13.14 of the Plastic Waste Reduction Standard v 1.0 states that the TTS representatives shall communicate to all stakeholders as listed in the project description about the validation/verification body's site visit. It is not clear whether or not this communication was done and in what form. The project proponent needs to clarify how this was done and what categories of stakeholders/stakeholder groups was contacted

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

It is clarified that TTS team members reached out with written communications and word of mouth approach to reach out to informal waste workers among the other identified stakeholders to ensure maximum coverage of informal waste workers across all the buyback centres and industrial clients. The updated and revised JPD&MR submissions have the written communications and email attached as supporting evidence to confirm the awareness for VVB site visit.

This is inline with the requirement of Section 3.13.14 of the Plastic Waste Reduction Standard.

**Documentation provided by project participant**

1) Copy of Email
2) Pictures of Informal Waste Worker briefings
3) Pictures of written communication pasted at public spaces

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

| |
|---|
| In their response, PP has clarified that they have communicated with stakeholders, providing them with advance notice of the validation and verification body's visit. This was substantiated with evidence, including email records, postings at public areas, and photographic documentation of briefing sessions.<br><br>Hence, the CL07 has been closed |

| CL | 07 | Section no. | 2.3.1 | Date: 11/04/2023 |
|---|---|---|---|---|
| **Description of CL** | | | | |
| Section 3.14.3 of the Plastic Waste Reduction Standard requires the project proponent to implement measures to address potential hazards and safety risks associated with implementation of the project activity.<br><br>An on-site visit to one of the project proponents MRF sites (Lusiggetti) revealed that project actors have been supplied with personal protective gear. However, interviews with one of the project actors involved in the incineration of bio-medical waste activities determined the following:<br><br>1. The bio-medical waste site was accessible to all the staff members on the site.<br>2. The personal handling the bio-medical waste was not aware on what kind of waste he is handing or the safety procedure for handing the waste.<br>3. Occupational medical examinations had not been carried out at the time of conducting this validation assessment. Moreover, the staff had not received training on the safe work procedures contrary to the provision of the local country's legal requirements.<br><br>Considering the above observation, PP shall explain how the requirements of Section 3.14.3 of the Plastic Waste Reduction Standard are met by the project activity. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| PP would like to clarify that requirements as specified under section 3.14.3 of the plastic standard has been fulfilled as follows:<br><br>1) The bio-medical waste site is located at the far edge of the Lusigetti site, and all staff members are made aware that only trained authorized TTS team members are to access it on account of the type of waste being processed there. The operator was also trained and equipped with the necessary safety personal protective equipment and the certificates for the same are being submitted.<br><br>2) TTS has arranged regular Health and Safety training for awareness and education with regular medical check-ups for the employees. The records for the same are provided. Furthermore, if any individual was not able to attend the training due to any personal reasons may attend the next training program as this is a continuous training cycle to ensure that the employees are well aware and equipped to handle the type of waste treated.<br><br>3) The Occupational medical check-ups for personnel are conducted by the project proponent as per Kenyan laws applicable to handle the specified waste category and the same is being submitted. This requirement has been followed indubitably to ensure a safe work environment. | | | | |
| **Documentation provided by project participant** | | | | |
| 1) Medical check-up certificates<br>2) Training certificates for Lusigeti site | | | | |

| VVB assessment | Date: 15/09/2023 |
|---|---|
| VVB has reviewed the PP's response and verified the following points:<br><br>1. The biomedical waste area is now restricted to authorized personnel only, ensuring that unauthorized individuals do not access the area.<br>2. Authorized personnel in the biomedical waste area are now trained in the proper usage of appropriate Personal Protective Equipment (PPE), and measures have been implemented to prevent unauthorized access.<br>3. PP has now completed the necessary medical examinations in compliance with local regulations and has provided certificates and supporting evidence.<br><br>As a result, CL 07 has been closed. | |

| CL | 08 | Section no. | 2.3.2 | Date: 11/04/2023 |
|---|---|---|---|---|
| Description of CL | | | | |
| A review of compensation documentation for the month of November 2022 (payslip No. 31196) for one of the project proponent's staff named Joseph Njuguna, revealed that the latter received a basic salary of Ksh.10,100 against the minimum wage requirement of Ksh. 16,033.15 contrary to the requirements of Legal Notice Number 125-Regulation of Wages (General) Amendment Order, 2022.<br>Section 3.14.5 of the Plastic Standard requires that project proponent shall ensure that any employment provided in the course of project activities is fairly and equitable compensated. | | | | |
| Project participant response | | | | Date: 06/09/2023 |
| It is submitted that TTS has adopted & followed the law of minimum wages appropriately and the person referred in the above query was at Lusigetti MRF site under Kiambu county which falls under the "other areas" of the Regulation of Wages, page 832, definition of Counties, the basic salary is above the minimum required wages of KSH 8109.<br>This amount is exclusive of the social security and other benefits provided to the employees.<br><br>This meets and exceeds the Section 3.14.5 of the Plastic Standard. | | | | |
| Documentation provided by project participant | | | | |
| Kenya Gazette Supplement No. 114 , Notification of Wages , page 832<br>Social security payment proofs | | | | |
| VVB assessment | | | | Date: 15/09/2023 |
| VVB has assessed the provided response of the PP and the provide evidence of the Kennya gazette supplement no 114, notification of wages and social security payment proofs it is confirmed that the payment of the staff in the query raised is inline with the local regulations.<br><br>Hence, the CL08 has been closed. | | | | |

| CL | 09 | Section no. | 4.3 | Date: 09/04/2023 |
|---|---|---|---|---|
| Description of CL | | | | |
| In the in the referred section of PLASTIC PROGRAM JPD&MR (v01.1) and Plastic Credit Sheet (WCC_WRC_Sheet_TTS_Version-01.1_22.11.22 (2) copy), PP has provided estimated values for amount of plastic waste that would be collected by the project activity over its entire crediting period.<br><br>PP shall provide the source or basis for the assumption for the valrues applied for:<br>1. Utilization rate<br>2. Use of a factor of 1.6 to estimate $P_{collected,d,y}$ from $P_{recycled,y}$<br>3. Source for the capacity of Pelletizers for both instance 1 and 2.<br>4. Source for the values used in table 13 (a) & 14 (a) for PET collected, PP collected, HDPE collected, LDPE collected for both instance 1 and 2. | | | | |

5. Source for the values used in table 13 (b) & 14 (b) for PET recycled, PP recycled, HDPE recycled, LDPE recycled for both instance 1 and 2.

Furthermore, PP shall also explain why real values (as the plant has been in operation) have not been used for the purpose of estimation.

| Project participant response | Date: 06/09/2023 |
|---|---|

Please be clarified that the JPD&MR has been revised to redefine the Collection Instance and Recycling Instance in line with the Plastic Waste Standard for grouped project activity.

The PP would like to submit the following to fulfil this clarification and the same is appended within the JPD&MR :

1) Utilization rate was taken on the basis of average operations as listed in the technical specifications of the pelletiser machines commissioned. The technical specifications are submitted with this JPD&MR.
2) The factor was taken as an average of the plastic remanufacturing industry observed and in the revised and updated JPD&MR, this has been dropped in favour of the actual data recorded for $P_{collected}$ and $P_{recycled}$
3) The source for these tables is the technical specifications of the pelletiser machines to define Recycling Instance has since been updated with actual figures as submitted within the revised and JPD&MR in Table 15a and Table 15 b with technical specifications attached for reference.
4) The source for these tables has since been updated with actual figures as submitted within the revised JPD&MR and Updated Volumes for PC Sheet as submitted on February 20th 2023 by PP.
5) As submitted during the OSV, the actual figures were submitted along with the signed production logs for comparison and was verified during the OSV.

**Documentation provided by project participant**

1) Updated collection sheet
2) Machinery technical specifications
3) Invoices for collection
4) Updated volumes for PC sheet
5) Production Logs

| VVB assessment | Date: 15/09/2023 |
|---|---|

PP has recently revised the information related to the raised CL, and VVB has subsequently verified that the updated JPD&MR v2.0 now reflects the utilization of a factor of 1.6, the pelletizer's capacity in both instances 1 and 2, and the source of the collected and recycled materials at actual values.

Hence the CL 09 has been closed.

| CL | 10 | Section no. | 7.1 | Date: 09/04/2023 |
|---|---|---|---|---|

**Description of CL**

In the referred section of PLASTIC PROGRAM JPD&MR (v01.1), PP shall provide the source and supporting evidence for the values used for the following parameters:

1. **Sorting output:**

a. Value of Quantity of sorted plastic waste of each material type i shall be provided.
b. As observed during OSV through review of the client's internal database the value stated for the parameter in section 7.1 of PLASTIC PROGRAM JPD&MR (v01.1) is incorrect. PP shall revise and update the value and provide the supporting evidence for the same.

2. **Recycling input:**
   a. SoP for the recycling process shall be provided to substantiate the input materials used during the recycling process.
   b. List of input materials and their values (e.g., solvents, process fuels) to the recycling process including the category of plastic waste of material type i and any other material(s) used in the recycling process shall be provided.
3. **$P_{collected,d,y}$:** During OSV through review of the client's internal database it was observed that the value provided for the parameter is incorrect. PP shall revise and update the value and provide the supporting evidence for the same.
4. **$P_{recycled,l,y}$:** As observed during OSV through review of the client's internal database the value stated for the parameter in section 7.1 of PLASTIC PROGRAM JPD&MR (v01.1) is incorrect. PP shall revise and update the value. PP shall provide all sales receipt and monthly stock assessment reports and sample of manual logbooks to VVB to substantiate the value of 3,794 tonnes used for this parameter.
5. **End destination of non-recycled plastic waste:**
   a. Contractual agreements / sales receipt with other recyclers for lost or scrap plastics that can't be processed in the recycling plant.
   b. Documentary evidence to substantiate that hazardous waste and effluent is sent to third parties for treatment and disposal.

Furthermore, values for instance 2 for all the parameters shall also be provided.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

JPD MR has been revised to update the values, sources and supporting evidence for the values used for the monitoring parameters detailed below

1) a. Sorted Values The actual values of sorted plastic is submitted along with the updated JPD & MR. Please refer to the actual Tab

   b. The actual values have been updated and are submitted as demonstrated during the OSV.

2) a.Standard Operating Procedure for recycling is submitted by PP to fulfill this requirement.

   b. The List of Input materials and their masses used is also submitted by the PP to fulfill this requirement. This was also demonstrated during the OSV.

3) Updated $P_{collected}$ values have been reported and submitted to fulfill this requirement within the JPD & MR

4) Updated $P_{recycled\ l,y}$ values are submitted to fulfill this requirement by PP along with the receipts for sales and signed production logs, the logs were also demonstrated during the OSV.

5) The PP is submitting the invoices and contracts for end destination of non-recycled plastic waste along with sludge management invoices.

6) The values across instances is submitted.

| **Documentation provided by project participant** |
|---|

1) Recycling SOP
2) Input materials list attached with updated volumes sheet
3) Sludge management and metal,glass invoices for end destination

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

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|---|
| VVB has reviewed the response, and the provided evidence are in line with the queries raised in the CL with the updated JPD&MR v2.0.<br><br>Hence the CL10 has been closed. |

| CL | 11 | Section no. | N/A | Date: 09/04/2023 |
|---|---|---|---|---|
| Description of CL | | | | |

PP is requested to provide following documentary evidence:

1. Training records pertaining to:
    a. Health and safety training
    b. Use of PPE kit
    c. Hazardous waste handling and disposal
    d. Collection methods/ technologies
    e. Training on use of recycling equipment
    f. Training on waste sorting
    g. Forklift operators
    h. QA/ QC process
2. Health insurance
3. Employment contract/ record (for minimum wages and equal remuneration)
4. TakaTaka Solution's contract with,
    a. Waste collectors / aggregators
    b. Transport agency
    c. Buyers of recycled pellets
    d. Buyers of scrap or waste plastics
    e. Contract with organization responsible for handling and disposal of hazardous waste (sludge) or plastics contaminated with hazardous materials.
5. Manufacturer's specifications of equipment installed at recycling facility (make, model, capacity, rate power consumption, accuracy class)
6. Purchase order of equipment
7. Commissioning certificate for all the pelletizers / extruders
8. TakaTaka Solution's policy on:
    a. Child labour
    b. Anti-discrimination
    c. Health and safety
    d. Forced labour.
    e. Sexual harassment
    f. Employment (equal opportunity and remuneration)
    g. Safe working conditions
9. Fuel consumptions records for transportation of collected and recycled product
10. Records of round trip distance covered by trucks for the purpose of transportation of collected plastic waste and recycled materials
11. Environmental Impact Assessment legislation and report (if applicale)
12. Documentary evidence demonstrating positive impact of project on natural resources:
    a. Air Resource
    b. Water Resource
    c. Soil quality
    d. Biodiversity
    e. Threatened and endangered species
13. Collection Activity: Invoices for purchased plastic waste covering the entire monitoring period (from 01/01/2022 to 31/08/2022)
14. Recycling Activity:
    a. Invoices for sale of pellets to end-users covering the entire monitoring period (from 01/01/2022 to 31/08/2022)

b. Monthly stock-change assessment report covering the entire monitoring period (from 01/01/2022 to 31/08/2022)

15. Invoice of sale of scrap or unused plastic waste to other recyclers covering the entire monitoring period (from 01/01/2022 to 31/08/2022)
16. Calibration certificates for monitoring/measurement equipment covering the entire monitoring period (from 01/01/2022 to 31/08/2022)
    a. Weighbridge
    b. Weighing scales
    c. Electricity meters
17. Copy of grievance register and records of resolution of grievance.
18. Land lease or purchase agreements for all the buyback centres, sorting sites, recycling facility.
19. Waste collection contract with all the industrial clients (viz., Kappa Oil, Kenya Sweets etc.,)
20. Licences/Regulatory approvals provided by the host country government to establish and operate buyback centres, sorting sites, recycling facility.
21. Licence for handling and disposal of hazardous (bio-medical waste)

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

Under the revised JPD&MR, the PP submits

1) Training Records for health and safety training, PPE Kits and usage, Hazardous waste disposal and handling, recycling machines, forklift certification and QA/QC process.
2) Health insurance premium receipts
3) Employment contracts and HR details
4) TTS invoices for Waste collectors, sales invoices for pellets,sludge management invoices
5) Technical specifications for pelletisers
6) Pos for pelletiser equipment for current operational and future pelletisers purchased before 31st December 2023.
7) Commissioning certificates for current pelletisers
8) TTS SoPs/Policies for Child labor, Anti discrimination, Health and safety, forced labor, Sexual harassment, equal employment opportunities, safe working conditions
9) Fuel records
10) Trip details
11) ESIA report and EMCA 1999 legislation (NEMA enactment law)
12) ESIA Report documenting positive impact on natural resources including air, water, soil quality,biodiversity and threatened and endangered species .
13) Invoices for monitoring period
14) Invoices for sales of of pelletised stock
15) Scrap plastic invoices
16) Calibration certificates for all project scales
17) Grievance register copies
18) Land lease agreements for Collection Instance activities
19) Waste collection invoices for industrial clients
20) NEMA Licenses and land lease agreements
21) Biomedical waste license

| **Documentation provided by project participant** |
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Gdrive link of all documents

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has reviewed the response and confirms that the requested documents pertaining to the raised CL have been furnished via share link.

Hence, CL 11 has been closed.

Table 2. CAR from this Validation and Verification

| CAR | 01 | Section no. | Cover Page | Date: 09/04/2023 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| Information on Project ID has not been provided on the referred section of the PLASTIC PROGRAM JPD&MR (v01.1). | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| 1) JPDMR has been revised appropriately, project id is updated and appended on the referred section. | | | | |
| **Documentation provided by project participant** | | | | |
| JPDMR Version 02.0 | | | | |
| **VVB assessment** | | | | **Date:** DD/MM/YYYY |
| PP has now updated the project ID in the revised JPD&MR v2.0<br><br>Hence the CAR 01 has been closed. | | | | |

| CAR | 02 | Section no. | Editorial | Date: 09/04/2023 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| During review of the PLASTIC PROGRAM JPD&MR (v01.1) it has been observed that in various sections throughout the report justification of fulfilment of requirements has been provided by specifying what "shall be" or "will be" done. It does not describe how the requirements have been fulfilled and what mechanism or structure has been put in place and how the project complies with the requirements of the applied standard and the methodology, as is illustrated by the following extracts from the monitoring report:<br><br>1. Their latitude and longitude shall be shared once confirmed (sec 1.11).<br>2. All relevant stakeholders shall be informed verbally and/or in writing (sec 2.1.10).<br>3. TTS representatives will communicate to stakeholders at least five working days in advance (sec 2.1.10).<br>4. end destination of the project activity shall be provided in line with the applicable methodology (Tale 11, sec 3.2).<br>5. Scales shall be calibrated according to the equipment manufacturer's specifications or at least once every three years (parameter: recycling input, sec 5.2).<br>6. The amount of plastic recycled shall be cross-checked with sales receipts of the material sold to the final buyer or another equivalent third-party evidence (parameter: $P_{recycled,i,y\ i}$, sec 5.2).<br>7. EIA shall be carried as per host country regulations for the grouped project (table 1, sec 1.3.1)<br><br>The entire PLASTIC PROGRAM JPD&MR shall be checked for such and revised. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| The PP submits the following to satisfy the above-mentioned questions.<br>As this is a grouped project, the geographic coordinates for the existing collection and recycling instances are being submitted with the abovementioned inputs in the JPD&MR Section 1.10<br>As demonstrated during OSV, TTS representatives were on site and had informed the local stakeholders including informal waste workers, industries from where waste is sourced and MRF of the visit. The email proofs and images of word-of-mouth briefings are attached within the JPD&MR Annexure 8.<br>As demonstrated in response to CL 06 mentioned above, It is clarified that the TTS team had reached out to stakeholders through both word of mouth, for informal waste workers, and written emails to other stakeholders. The email exchange with KAPA Oil, where OSV was conducted is attached with this submission . | | | | |

The PP submits that organic waste is turned into compost onsite and furthermore invoices for sludge waste, non-plastic waste including metals and plastic waste not recycled. End destinations for all waste streams and their proofs are submitted with this JPD&MR. in line with PWRM0001 and PWRM0002 Monitoring Parameters.

Calibration certificates are submitted for all project weigh scales within the JPD&MR Documents along the list of the project weigh scales as Annexure 6 in the JPD&MR.

Sales receipts are submitted to demonstrate the quantity of recycled pellets sold.

The ESIA report voluntarily implemented by the Project Proponent for Ehothia recycling site, It is clarified that collection of plastic waste does not require EIA as per Kenyan NEMA Rules.

**Documentation provided by project participant**

1) KML files and coordinates of all collection instances,
2) Copy of permission email for industrial visit
3) Sales receipts
4) Calibration certificates
5) EIA report

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

PP has now updated the points 1-5 in the revised JPD&MR v2.0 and VVB assessed the provided the evidence of point no 6 and 7 as per the CAR raised.

Hence the CAR 02 has been closed.

| **CAR** | 03 | **Section no.** | 1.1 / 1.3 | **Date:** 10/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In section 1.1 of the PLASTIC PROGRAM JPD&MR (v01.1), PP has defined that each instance under the project activity would include both collection facilities/centres and recycling facility.

However, while defining the instance, PP shall clearly define what kind of collection facilities / centres (viz., buyback centres, sorting sites, industrial clients) would be included under single instance.

Moreover, for recycling facility PP shall explain how the installation of a new flexible washing line is considered as new instance when it would be using the existing palettization machines/equipment at the exiting recycling facility.

Furthermore, while defining the instances PP shall consider requirements pertaining to operational control, threshold capacity and unique identification and traceability of each facility or centre to their respective instances for both collection as well as recycling facility etc.,

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

It is submitted by the PP that in line with the guidance of Plastic Standard Section 3.3.13, the Collection Instance activities are redefined as including the single or combination of Buy Back Centres, Municipal Collection and Industrial Clients as multiple instances of multiple activities and the recycling instance is redefined based on the commissioning and operation of the mechanical recycling pelletizer machines which recycles the plastic waste polymers to the final recycled plastic pellets. These recycled pellets are then sold in the open market to displace virgin plastic in manufacturing of products.

As demonstrated during the OSV, the redefined instances are in line with the requirements of traceability and unique identification to fulfill this requirement.

As defined under section 1.10, In the redefined Collection and Recycling instance, for the traceability and unique identification, for each buy back center, the naming convention adopted is BB-01-xx for each such center, for MRF, MRF-01-xx and industrial client as IC-01-xx . The 01 indicates the Collection Instance 1.

For the Recycling Instance, each pelletiser is defined as Pelletiser 1,2,3,4 and 5 based on their commissioning dates.

**Documentation provided by project participant**

1) Proof of Commissioning and Purchase Orders of New Pelletisers.

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

PP has now updated the instances of the collection and recycling instances in the revised JPD&MR v2.0 and VVB has reviewed the provided proof of commissioning and purchase orders of the new pelletisers and further each palletiser is defined as 1,2,3,4 & 5 based on the commissioning dates.

Hence the CAR 03 has been closed.

| **CAR** | 04 | **Section no.** | 1.3.1 | **Date:** 10/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of the PLASTIC PROGRAM JPD&MR (v01.1), PP has provided eligibility criteria for grouped projects. However, the provided eligibility criteria are neither sufficiently objective nor comprehensive to permit the assessment of the inclusion of future instances in the grouped project.

1. The table doesn't provide list of objective and verifiable evidence against each eligibility criteria that would be required to assess the fulfilment of the requirement by future instances.
2. The eligibility criteria (for technology/measure, baseline, and additionality) are very generic in nature and doesn't specify the project specific requirements to be evaluated to ascertain their fulfilment.
3. Start date: PP shall provide the start date of the grouped project activity in the eligibility criteria.
4. Eligibility criteria with respect to unique identification of future instances and avoidance of double counting is missing.
5. Eligibility criteria for LSC, is incomplete as it has not been indicated that whether the LSC will be conducted at grouped project level or instance level and while selecting such a level PP shall also justify the appropriateness of their choice.
6. Eligibility criteria for EIA is incomplete as it has not been indicated whether EIA is required for such activity or not and moreover, whether the EIA will be conducted at grouped project level or instance level and while selecting such a level PP shall also justify the appropriateness of their choice.
7. Eligibility criteria for regulatory surplus is missing.
8. Evidence of ownership criteria is not in line with the requirements as stated in section 3.4 of the Plastic waste standard.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

In the updated and revised JPD&MR, the PP has updated as follows:

1) In line with the Plastic Standard guidance under section 3.3.13, the instances are redefined separately for Collection Instance and Recycling instances under the grouped project definition guidelines. The same is updated with the revised JPD& MR Section 1.3.1 in line with the respective methodologies of PWRM0001 and PWRM0002.

2) As submitted above and demonstrated under the OSV, with the redefined Collection and Recycling instances, the technology, baseline, and additionality are updated and submitted under the revised JPD & MR under Section 1.3.1.

3) In line with the eligibility criteria laid under the Plastic Standard for Start Date, the updated JPD MR has updated the start date for collection and recycling to be 1st January 2022.
4) The redefined eligibility criteria have been updated in the JPR MR to avoid double counting. The redefined instances for collection and recycling are in line with guidance under Plastic Standard Section 3.3.13.
5) For each new project activity instance under Collection & Recycling Instances, a new LSC will be conducted at each new instance level as per the guidance of the sec 3.3.13.
6) EIA has been conducted for Recycling Instance located at Ehothia site as per the Kenyan NEMA authority with the NEMA License issued for the same instance. EIA is not required for Collection Instance. The PP also submits the EIA conducted for Ehothia site.
7) Under the Sustainable Waste Management Act that was notified in July 2022, the required regulations to enforce the law will be published within 2 years of the notification of this law and therefore are currently not available, however under the EMCA Act 1999, All required NEMA licenses are submitted and the updated JPD and MR reflect the requirements of NEMA licenses to commence operations as the guidance of Plastic Standard's regulatory compliance as part of the JPD&MR documents. Eligibility criteria for new instnces to meet regulatory laws and regulations have been updated in the revised JPD&MR.
8) In line with guidance under Sec 3.4.1,2,3 of the plastic standard, the ownership proofs are submitted by the PP Including land lease, electricity bills and NEMA licenses to commence operations.

**Documentation provided by project participant**

1) Updated definition of collection activity instance and recycling activity instance
2) Start date proofs.
3) Updated JPD & MR

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has reviewed the responses provided by the PP and the revised JPD&MR v2.0 in which the raised CARs were addressed inline with the plastic standard.

Hence the CAR 04 has been closed.

| **CAR** | 05 | **Section no.** | 1.3.1 | **Date:** 10/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of the PLASTIC PROGRAM JPD&MR (v01.1), PP has provided eligibility criteria for project activity and its instances. However, the provided eligibility criteria are neither sufficiently objective nor comprehensive to permit the assessment of the inclusion of future instances in the grouped project.

1. For baseline scenario: PP shall explain how the baseline for instance 2 would be like instance 1 esp., when a new flexible washing line would be added at the same recycling facility. Similarly for collection activity in Mombasa (under instance 2) where PP already has an existing collection activity as part of instance 1.
2. Technology measure: recycling instance 2 will involve addition of only a flexible washing line. Then how the technology measure of instances 1 and 2 are similar.
3. Additionality: PP has not demonstrated penetration rate for instance 2 in section 3.6 of Plastic Program JPD&MR (v01.1). Furthermore, no information on investment analysis has been provided.

4. LSC: It has not been indicated that whether the LSC will be conducted at grouped project level or instance level.
5. EIA: no justification has been provided as to how the instances 1 and 2 fulfill this eligibility criteria.
6. Legal ownership: Fulfilment of this eligibility criteria by instance 2 has not been demonstrated.

Furthermore, PP shall provide documentary evidence to justify the fulfilment of all the eligibility criteria by both instance 1 and 2.

**Project participant response** | **Date:** 06/09/2023

TTS has updated the JPD &MR and redefined the instances in line with the requirements of plastic standard (V.1) para 3.3.13 & 3.3.14 and subsequently updated the eligibility criteria for the respective activities.

1) Collection Instance redefinition, please
2) Recycling Instance redefinition is based on pelletizer machines currently commissioned and to be commissioned on or before 31st December 2023, it is the capacity of Ehotia site for pelletizer machines installation upon which the Recycling instance is defined.
3) Collection & Recycling Instances has been revised in line with the Plastic standard definition of Multiple Activity & Multiple instances and updated the penetration rate based additionality, submitted for Collection and Recycling Instance 1 based on PLASTEAX database and Plastic Waste Baseline Report.
4) LSC has been implemented at grouped project level for the redefined Collection and Recycling Instance 1. For any new project activity instance a new LSC will be conducted where appropriate at the instance level. This has been updated within the JPD&MR Section 1.3.1.
5) EIA is required for the Recycling Instance at Ehothia only as per Kenyan NEMA regulations, the same is attached for Recycling Instance as Collection Instance does not require EIA.
6) Legal ownership: power bills on name of TTS, land lease documents and NEMA Licenses attest to ownership of project by proponents

**Documentation provided by project participant**

1) Penetration Rate calculation
2) PLASTEAX Database and Baseline Report
3) Voluntary ESIA Report
4) Power Bills, Land Lease Documents, NEMA Licenses

**VVB assessment** | **Date:** 15/09/2023

VVB has thoroughly reviewed the PP response, and the following key points have been confirmed:

1. Redefinition of both the Collection and Recycling Instances has been carried out as per CAR raised.

2. The redefinition of Recycling Instances is grounded in the capacity of pelletizer machines to be commissioned by or on December 31, 2023, and is dependent on the capacity of the Ehotia site for the installation of these machines.

3. The Collection and Recycling Instances have been updated to align with the Plastic standard's definition of Multiple Activity and Multiple Instances. The penetration rate, based on additionality, has been revised using data from the PLASTEAX database and the Plastic Waste Baseline Report.

4. Local Stakeholder Consultation (LSC) has been implemented at the grouped project level for the redefined Collection and Recycling Instance 1. New project activity instances will undergo their own LSC as needed at the instance level. This has been reflected in the updated JPD&MR Section 1.3.1.

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|---|
| 5. Environmental Impact Assessment (EIA) is mandatory for the Recycling Instance at Ehothia, in compliance with Kenyan NEMA regulations. The EIA report is provided for the Recycling Instance, while the Collection Instance does not require an EIA.<br><br>6. Legal ownership has been substantiated through documentation, including power bills in the name of TTS, land lease documents, and NEMA licenses, affirming the project's ownership by the proponents.<br><br>Hence the CAR 05 has been closed. |

| CAR | 06 | Section no. | 1.9 | Date: 10/04/2023 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| As required by the "Joint Plastic Project Description & Monitoring Report Template (v1.0)", PP shall provide the year (2022 / 2023) against year 1 and year 2 in the tables provided in the referred section of Plastic Program JPD&MR (v01.1). | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| The PP submits that the updated JPDMR Section 1.9 is revised to include the specific years for | | | | |
| **Documentation provided by project participant** | | | | |
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| **VVB assessment** | | | | **Date:** 15/09/2023 |
| PP has now updated the specific year as per the raised CAR.<br><br>Hence the CAR 06 has been closed. | | | | |

| CAR | 07 | Section no. | 1.10 | Date: 10/04/2023 |
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| **Description of CAR** | | | | |
| The description of the project activity as provided in the referred section of the Plastic Program JPD&MR (v01.1), is not in line with the guidelines as provided in "Joint Plastic Project Description & Monitoring Report Template (v1.0)".<br><br>1. Separate description for both plastic waste collection and recycling activity shall be provided.<br>2. For plastic waste collection projects, it doesn't provide information on the following:<br>a. Include a description of the end-of-life of the collected plastic waste (e.g., mechanical recycling).<br>b. Where applicable, include a description of the infrastructure, systems and equipment involved in collection activities (e.g., nets, trucks, waste grabbers).<br>c. If applicable, provide a list of the infrastructure, systems and equipment that existed prior to the implementation of the project.<br>3. For plastic waste recycling projects, it doesn't provide information on the following:<br>a. Describe the nature and use of the end product (i.e., the recycled or processed material and its next step in the value chain).<br>b. Include a list and the arrangement of the main mechanical or chemical recycling technologies, systems and equipment that will be used to process the material. Include in the description information about the age and average lifetime of the equipment based on the manufacturer's specifications and industry standards.<br>c. Include the types and scales of services provided by the systems and equipment that are being modified and/or installed in the project.<br>d. If applicable, provide a list of facilities, systems and equipment that were in operation prior to the implementation of the project.<br>4. The description of instances is not consistent withing various sections (1.1 and 1.10.1) of the document.<br>5. The "Joint Plastic Project Description & Monitoring Report Template (v1.0)" has been altered in the referred section as the original template doesn't provide sub-sections.<br>6. The nomenclature of type of plastics materials being targeted by the grouped project activity is different in different sections. PP shall include the types of materials being collected and recycled | | | | |

as defined by PP and then shall explain under which category of materials as allowed under the Plastic waste Standard clearly in the document they fall into.

| Project participant response | Date: 06/09/2023 |
|---|---|

The PP is submitting the updated JPD&MR with the below updates for Section 1.10

1) JPDMR has been updated to redefine the collection instance as a combination of buy back centres, MRF and industrial sources and recycling instances as mechanical recycling instances. Please refer to the Section 1 of the JPD MR.
2) As updated in the Section 1.10, the updated and revised JPD&MR specifies
   a) The end destination of all the project's collection of plastic waste polymers as being sent for mechanical recycling using the project pelletisers.
   b) Within the section 1.10, the project's list of equipment is specified under Table 7
   c) Before implementation of project only collection and sorting existed at the project site
3) As demonstrated in the OSV, and specified under Section 1.10.1
   a) the recycled plastic pellets are sold for remanufacturing into finished goods thereby displacing the use of virgin plastic material. The finished pellets are attached as Annexure – 5 and sales invoices/receipts are also provided with the JPD&MR.
   b) The TTS Recycling Instance at Ehothia is comprised of only Mechanical Recycling process including sorting, shredding, hot washing and pelletising. Furthermore, the technical specifications are submitted within the Section 1.10.1 and the same is also appended with the JPD&MR.
   c) List of project weigh scales and weighbridges is attached as Annexure 7 with their calibration details.
   d) Prior existing apparatus to project operation date are submitted.
4) The collection activity instance and recycling activity instance are appropriately defined and updated for the relevant sections of this JPDMR.
5) The appropriate template is updated with no alterations.
6) As updated in Section 1.2 and 1.10 and of the revised JPD&MR, the updated list of polymers that the TTS project collects and recycles is submitted. This includes PP,PET,PS,EPS,HDPE,LDPE and their specific formulations including thermoformed, woven, nonwoven etc.

| Documentation provided by project participant |
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| VVB assessment | Date: 15/09/2023 |
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VVB as assessed the provided response with the revision of the required sections in the revised JPD&MR v2.0 as per the CAR raised.

Hence the CAR 07 has been closed.

| CAR | 08 | Section no. | 1.11 | Date: 11/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In accordance with the requirements for project location as per "Joint Plastic Project Description & Monitoring Report Template (v1.0)", PP shall provide the following:

- For grouped projects, include at least one set of geodetic coordinates with sufficient geographic information on the location of the other instances. If geodetic coordinates for each instance are available, provide the coordinates in a KML file.
  - For grouped projects, also include geodetic polygons to delineate the project's geographic area(s).

Moreover, the table provided just lists the name of cities or towns where the instances would be located but doesn't provide the exact location (viz., name and physical address) for the collection and recycling sites.

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| Furthermore, no information on the location of instance 2 as required by the "Joint Plastic Project Description & Monitoring Report Template (v1.0)" has been provided in the refereed section of the Plastic Program JPD&MR (v01.1). |
| **Project participant response** **Date:** 06/09/2023 |
| The PP is submitting, f or each project activity falling under the updated instance definition, the geodetic files are submitted with this. This is updated in the JPD&MR section 1.11. |
| **Documentation provided by project participant** |
| 1) KML files for each collection center and Ehothia facility |
| **VVB assessment** **Date:** 15/09/2023 |
| PP has revised the project activity in accordance with the updated instance definition in the revised JDP&MR v2.0 and provided KML files for each of the collection and recycling facilities.<br><br>Hence the CAR 08 has been closed. |

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| **CAR** | 09 | **Section no.** | 1.12.2 | **Date:** 11/04/2023 |
| **Description of CAR** | | | | |
| The description provided the referred section of the Plastic Program JPD&MR (v01.1), is not in line with the requirements as mentioned in the "Joint Plastic Project Description & Monitoring Report Template (v1.0)" as it doesn't provide any information on the following:<br>1. information on human health,<br>2. working conditions,<br>3. labor,<br>4. energy consumption,<br>5. greenhouse gas (GHG) emissions,<br>6. air quality,<br>7. water quality,<br>8. soil quality,<br>9. biodiversity and<br>10. ecosystem health. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| The project proponent has implemented a voluntary ESIA and followed through the recommendations of the voluntary ESIA commissioning by PPT through the following:<br>1) Commissioning and operating an onsite Sewage Treatment Plant to manage the water consumed.<br>2) Regular trainings for health safety and hygiene including first aid and fire suppression.<br>3) Provisioning of fire suppression, first aid kits and other safety PPE at project sites.<br><br>For Green House Gas Emissions, the JPD&MR has been updated under Section 2.3.3 along with the calculations submitted as Excel sheet in the document folder.<br><br>For working conditions, in line with Kenyan Labor laws, the TTS waste workers' are provided with the social security contributions and the receipts for the same are submitted. | | | | |
| **Documentation provided by project participant** | | | | |
| 1) EIA report<br>2) NEMA Licenses<br>3) Business License issued for Collection Activity Instances<br>4) Recepts for social security payments | | | | |
| **VVB assessment** | | | | **Date:** 15/09/2023 |

VVB has reviewed the responses provided by the PP with the documental evidence which confirmed the below key points.

1. Commissioning and operating an onsite Sewage Treatment Plant to manage the water consumed.
2. Provision of the fire safety and the fire training were provided
3. PPE and other safety requirements were provided in the collection and recycling.
4. GHH information is updated in the revised JPD&MR v2.0 provided with the calculation of the excel related to the reductions.
5. Social security payments provided to the TTS waste workers.

Hence the CAR 09 has been closed.

| CAR | 10 | Section no. | 1.12.2 | Date: 11/04/2023 |
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**Description of CAR**

The description provided the referred section of the Plastic Program JPD&MR (v01.1), is not in line with the requirements as mentioned in the "Joint Plastic Project Description & Monitoring Report Template (v1.0)" as it doesn't clearly identify and demonstrate compliance of the project with all the relevant local, regional and national laws, statutes and regulatory frameworks affecting the project activity directly or indirectly viz., law with regards to air pollution , water pollution, hazardous waste handling and disposal, labour laws etc.,

**Project participant response** — **Date:** 06/09/2023

The PP submits the following to fulfil this query in Section 1.13 of the revised JPD&MR in line with the template provided by VERRA.

1) The updated JPD& MR appropriately mentions the requisite details as required under the JPD MR v1.0 template.
2) The NEMA permits and licenses as maintained by TTS.
3) Compliance of relevant laws of Kenya

The Sustainable Waste Management Act passed in July 2022 while passed, does not have any enforcement as within the Law, under Section III the Regulations for enforcement are to be notified from 2 years from the date of passing of the Law into action. Therefore, there is no basis for enforcement of the same law for the Monitoring Period from 1st January 2022- 31st August 2022.

As per the EMCA Act 1999, the appropriate licenses for recycling activity are issued by NEMA for TTS Recycling Plant at Ehothia and these are submitted along with this JPD&MR. Collection activities for plastic waste currently do no require any license from NEMA.

**Documentation provided by project participant**

1) Updated section 1.13
2) NEMA Licenses
3) List of local laws applicable and in force during the monitoring period.

**VVB assessment** — **Date:** 15/09/2023

PP has revised the JPD&MR v2.0 section 1.13 with the information of the requisite details, NEMA permits and compliance of the relevant laws.

Hence the CAR 10 has been closed.

| CAR | 11 | Section no. | 2.1.7/2.1.8 | Date: 11/04/2023 |
|---|---|---|---|---|

**Description of CAR**

The description provided in the referred section of Plastic Program JPD&MR (v01.1), on "Feedback and Grievance Mechanism" doesn't address the following:

1. During the OSV it was observed that the client's premises (collection of recycling facility are not clearly identifiable (lack of signages) at sites that no information on feedback and grievance mechanism (e-mail, phone number, name of site in charge or person responsible) is not publicly available. Moreover, the register available on the site requires the complainant to provide their names and which takes away their right to anonymity and can be detrimental to the entire mechanism.
2. It has been stated that contact details have been provided on the website. Considering the above observations, PP shall explain appropriateness of the mechanism according to the type of stakeholders involved/affected in the project activity.
3. Grievance escalation and redressal mechanism which depicts provides information on turn-around time, personal responsible etc.,
4. PP shall also describe how it has been ensured that the feedback and grievance mechanism is publicized and accessible to all project stakeholders, including any interested stakeholders.

| **Project participant response** | **Date:** 06/09/2023 |
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The PP submits, as demonstrated during the OSV,

1) Under the Grievance and Feedback Register, the Name and personal details are optional if the complaint wishes to make it known, as demonstrated in other collection centres. At the Ehothia Recycling Centre, at the Main Office, the Notice Board specifically highlights the Standard Operating Procedure to register any issue by TTS members and any stakeholder affected by the project. The same is also present at the project sites with the site managers.
2) As the local Nairobian population is adept with cell phones and basic internet usage, the mechanism is freely and equitably available to all. Each project site also has a clearly marked physical notebook Register to ensure continuous monitoring of the project by local stakeholders .
3) Project Proponents are committed to the highest standards of accountability by the local communities and hence is open to such feedback. They enforce this with any complaint being able to reach the site supervisor and Head Office and have full access to the grievance register within 2 weeks
4) The Grievance register is kept publicly and checked every 2 weeks to ensure all issues are satisfactorily resolved.

This is inline with the guidance under the Plastic Standard

**Documentation provided by project participant**

1) Images of Continuous Grievance Registers at collection and recycling instances
2) SOP for Grievance mechanism

| **VVB assessment** | **Date:** 15/09/2023 |
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VVB has assessed the response provided by the PP related to the raised CAR that it was optional for the person complaining to provide his details along with the complaints and the register was made available for all the interested parties and stakeholders which will be reviewed and addressed within 2 weeks of time.

Hence the CAR 11 has been closed.

| **CAR** | 12 | **Section no.** | 2.1.9 | **Date:** 11/04/2023 |
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**Description of CAR**

The description provided in the referred section of Plastic Program JPD&MR (v01.1), doesn't describe how full project documentation, including project description documentation and monitoring reports (as they become available through the project lifetime), has been, and will be, made accessible to all stakeholders, especially marginalized and/or vulnerable stakeholder groups.

| **Project participant response** | **Date:** 06/09/2023 |
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| Inline with the Plastic Standard, the PP submits the following<br>1) The requisite documentation once verified will be uploaded on the VERRA Registry and TTS website to be freely accessible by any relevant stakeholder who wishes to check the same.<br>2) In case of lack of access to the internet, the same documents can be sought freely from the provided directions at the Head Office and Ehothia main office. |
| **Documentation provided by project participant** |
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| **VVB assessment** **Date:** 15/09/2023 |
| VVB has assessed the response from PP and affirms that the project documents are accessible both on the Verra website and at the head office and the main office located in Ehothia.<br><br>Hence the CAR 12 has been closed. |

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| **CAR** | 13 | **Section no.** | 2.2 | **Date:** 11/04/2023 |
| **Description of CAR** | | | | |
| PP shall update the section as the 30 days GSC period is over now. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| The PP has updated JPD&MR appropriately. | | | | |
| **Documentation provided by project participant** | | | | |
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| **VVB assessment** | | | | **Date:** 15/09/2023 |
| PP has revised JPD&MR v2.0 section 2.2, addressing the public commenting period, and no comments have been received.<br><br>Hence, CAR 13 has been closed. | | | | |

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| **CAR** | 14 | **Section no.** | 2.3.1 | **Date:** 11/04/2023 |
| **Description of CAR** | | | | |
| In the referred section of Plastic Program JPD&MR (v01.1), PP has provided information/vales for:<br>1. Project emissions<br>2. Emissions saved due to the project activity.<br><br>However, PP has not provided any supporting documents to substantiate the values used for the calculation. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| It is submitted that the PP is attaching the B aseline R eport which clarifies the values upon which the project emissions were determined. Further supporting scientific literature are also attached. The updated JPR&MR specifies these values under Section 2.3.3's Table 7. | | | | |
| **Documentation provided by project participant** | | | | |
| 1) Baseline report and PLASTEAX database<br>2) LCA values for plastics<br>3) GHG WCC/WRC estimations sheet | | | | |
| **VVB assessment** | | | | **Date:** 15/09/2023 |
| VVB has assessed the PP's response and the evidence that baseline report, PLASTEX database, LCA values for plastics under section 2.3.4 in the updated JPD&MR v2.0, and GHG calculations for the collection and recycling credits.<br><br>Hence the CAR 14 has been closed. | | | | |

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|---|---|---|---|---|
| **CAR** | 15 | **Section no.** | 2.3.4 | **Date:** 11/04/2023 |

| Description of CAR |
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| The description provided in the referred section of Plastic Program JPD&MR (v01.1), is very generic in nature and doesn't provide any information on the specific impact of the project activity within the project boundary on the following parameters:<br><br>1. Air quality impacts<br>2. Water quantity and quality impacts: as observed during the OSV the process of washing the collected and shredded waste is water intensive. PP shall explain the impact on water withdrawal and water discharge and provide documentary evidence to substantiate that the project activity has no negative impact.<br>3. Soil quality impacts: as observed during the OSV, all the waste that is collected is stored on the ground (bare soil) and not on concrete or paved surfaces. So, PP shall explain how the project prevents negative impact on soil within the project boundary.<br>4. Biodiversity and ecosystem health impacts<br>5. Impact on threatened and endangered species |
| **Project participant response** **Date:** 06/09/2023 |
| The PP submits the following responses to the above queries :<br><br>1)The project's Environmental Impact Assessment clarifies the requirements and the NEMA Licenses substantiate the project activities impacts on the local environment.<br>2) As demonstrated during the OSV, The project operates a closed loop water management system with an onsite Sewage Treatment Plant. The water for which is sourced from the nearby river and is treated before being discharged back into the environment.<br>3) The collected plastics are stored within the project site and are carefully segregated. As the site is in a remote area with clearly defined processes, there is minimal leakage into the local soil or environment with regular site clean ups.<br>4) EIA highlights the limited impacts of the project as it is in an area surrounded by other farms with minimal impacts on the local ecology.<br>5) There are no threatened or endangered species near or affect by the project. |
| **Documentation provided by project participant** |
| 1) EIA Document<br>2) NEMA Licenses<br>3) Sludge management invoice<br>4) Water management invoice<br>5) Technical specifications of the onsite STP |
| **VVB assessment** **Date:** 15/09/2023 |
| VVB has reviewed the response provided by PP, along with the supporting documents as evidence, and can confirm compliance with the project's Environmental Impact Assessment (EIA), NEMA permits, sludge and waste management invoices, as specified in the OSV observation, and the technical specifications of the onsite Sewage Treatment Plant (STP).<br><br>Hence, CAR 15 has been closed. |

| CAR | 16 | Section no. | 3.1 | Date: 11/04/2023 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| In the referred section of Plastic Program JPD&MR (v01.1), PP shall provide the tool number and version for "Tool for demonstration and assessment of additionality". | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| It is submitted that no Tool has been administered to determine additionality for this JPD&MR and hence this query is resolved. | | | | |
| **Documentation provided by project participant** | | | | |

| VVB assessment | Date: 15/09/2023 |
|---|---|
| PP has not used any additionality tool, as the project is additional, and the penetration rate is in alignment with the requirements.<br><br>Hence, CAR 16 has been closed. | |

| CAR | 17 | Section no. | 3.2 | Date: 11/04/2023 |
|---|---|---|---|---|
| **Description of CAR** | | | | |

In the referred section of Plastic Program JPD&MR (v01.1), PP has provided justification for fulfilment of the applicability criteria of the applied methodology PWRM0002, however, the justification doesn't provide any information on verifiable evidence which could be cross-checked by the VVB to ascertain the fulfilment of the methodology applicability criteria by the grouped project and real case instances.

1. For applicability **criterion #1,** PP shall provide documentary evidence to substantiate that the TTS PWRP Instances 1 & 2 involve the installation and operation of a new mechanical recycling facility for collected plastic waste especially for instance 2 which would involve implementation of a new flexible washing line at an existing recycling facility.
2. For applicability **criterion #4**, the justification provided doesn't address the following requirements:
    a. Source of the plastic waste (e.g., household, industrial entity);
    b. Detailed description of the sorting criteria
    c. Expected material composition of output waste streams post-sorting, according to material types defined in the latest version of the Plastic Standard
    d. Information on Credible evidence such as manufacturer specifications or good practice guidance (GPG) must be provided to demonstrate that the technology and/or method used to sort plastic waste is appropriate for the collected plastic waste and the technology or technologies used to recycle the plastic waste.
3. For applicability **criterion #5**, PP shall provide documentary evidence to substantiate that any plastic waste that contains hazardous materials or substances, is treated according to the relevant national, regional and local regulations.
4. For applicability **criterion #6**, PP shall provide records of measurements of final output of the recycling facility (viz., log-books, monthly production reports, invoices and stock-change reports etc.,)
5. For applicability **criterion #7**, the justification provided doesn't address the following requirements:
    a. Properties of the output of the recycling facility (e.g., presence and/or type of contamination, characteristics of macromolecules, chemical stability) have not been provided to demonstrate quality.
    b. Credible evidence such as contractual agreements, receipts of sale of recycled material, third-party audits, monthly stock assessment reports have not been provided to demonstrate that the WRCs in the project are being claimed for only the fraction of the output of the recycling facility that is or can be used to produce recycled plastic.
6. For applicability **criterion #8**, the justification provided is very generic and doesn't clearly establish that there is recyclable plastic waste available in the region of the project activity that would not have been recycled in the absence of the project. PP shall provide project specific arguments and evidence.
7. For applicability **criterion #11**, PP shall provide documentary evidence (scrap sales record) to demonstrate that plastic waste that enters the project recycling facility but is not recycled or is lost during the recycling process (e.g., due to contamination) is managed in a way that does not include dumping on open land, in water bodies and/or at dumpsites; open burning; or incineration without energy recovery.

| Project participant response | Date: 06/09/2023 |
|---|---|
| The PP submits in the updated JPD&MR is revised with the below : | |

1) The current instance definitions are redefined to make collection activities as an instance comprising of existing and new collection centres which are either or a single or combination of buy back centres, MRFs and industrial sources of plastic waste. For recycling instance , it is redefined as existing and new washing lines and pelletisers commissioned or purchased before December 2023. New capacity additions for both instances would fall under the re defined instance definition.
2) As demonstrated in OSV, the plastic waste sources in the updated volumes sheet are clearly defined with the updated instance definition along with sorting criteria and segregation.
3) As demonstrated in OSV, the NEMA waste management licenses are submitted.
4) As demonstrated in OSV, the required documents were physically shown, we are attaching them again.
5) Sales receipts and invoices demonstrate the recycled polymer pellets sold post mention the nature of the pellets sold as recycled.
6) Baseline report and Kenyan PLASTEAX database and hot spotting guide are attached to demonstrate the baseline additionality of the project.
7) PET plastic invoice that is not recycled by TTS but sold to dedicated recyclers is attached.

**Documentation provided by project participant**

1) Invoices for purchase and sales receipts

| **VVB assessment** | **Date:** 15/09/2023 |
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VVB has reviewed the response, document, and revised JPD&MR v2.0 and confirm the below points.

1. Point no 1 & 2 PP has now update the JPD&MR v2.0 with the clear difference of the instances of collection centers existing and new collection centers and new capacity additions for the both instance would fall under the redefined instance definition.
2. Point no 3 NEMA waste management licenses provided.
3. Output of the recycling facility is verified at OSV and also attached it as document.
4. Invoice for purchase and sale receipts are provided.
5. End destination of the recycled PET waste is provided.

Hence the CAR 17 has been closed.

| **CAR** | 18 | **Section no.** | 3.2 | **Date:** 11/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of Plastic Program JPD&MR (v01.1), PP has provided justification for fulfilment of the applicability criteria of the applied methodology PWRM0001, however, the justification doesn't provide any information on verifiable evidence which could be cross-checked by the VVB to ascertain the fulfilment of the methodology applicability criteria by the grouped project and real case instances.

6. For applicability **criterion #1**, PP shall provide documentary evidence to substantiate that for collection activity the waste is collected from informal sectors.
7. For applicability **criterion #2**, it is stated that **"The collection activity is a new activity done by the PP.** PP shall provide documentary evidence to substantiate the same. Furthermore, it has not be justified whether the manually or by electro-mechanical equipment (automatic or semi-automatic).
8. For applicability **criterion #3**, PP shall provide the document titled "NATIONAL GUIDANCE FOR PLASTIC POLLUTION HOTSPOTTING AND SHAPING ACTION – _Final Report for Kenya, December 2020" to demonstrate that sources of the collected waste are clearly identifiable and are existing or potential sources of plastic waste that would have been left or dumped in the environment (including open burning, dumpsites) or incinerated without energy recovery in the absence of the project activity.
9. For applicability **criterion #4**, PP shall provide documentary evidence to substantiate that the collected waste is directly transferred to the recycling facility owned by the PP.

10. For applicability **criterion #5**, PP shall provide documentary evidence (sales invoices generated by the project proponent or goods receipt notes generated by the plastic waste recipient) to substantiate that the dry weight of the final output of collected plastic waste that reaches an appropriate end destination is directly measured and recorded.
11. For applicability **criterion #6**, PP shall provide documentary evidence (Contractual documents between the project proponent and the recipient of the collected waste) to demonstrate that output of the collection activity is not used in any unauthorized, illegal or non-statutory activities within the project boundary.
12. For applicability **criterion #7**, the justification provided by PP doesn't describe how activities of the end destination facility are in compliance with relevant local or national regulations.
13. For applicability **criterion #8**, the justification provided by doesn't unambiguously establish that there is plastic waste available in the region that would not have been collected in the absence of the project.
14. For applicability **criterion #9**, the justification provided by doesn't unambiguously establish that the project activity does not compete with other collection activities or include plastic waste that has been diverted from a historically existing collection activity.
15. For applicability **criterion #10**, it is stated "Contaminated plastic waste is either not accepted by the recycling facilities or is stored for later disposal by the authorized agency as per the relevant regulations." PP shall provide documentary evidence to substantiate the same.

| **Project participant response** | **Date:** 06/09/2023 |
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The updated JPD&MR has the applicability criteria revised for each of the Instances inline with the requirements of the PWRM0001 and PWRM0002, Earlier collection was done for stockpiling and rPG pilot, this project is defined by the operation of pelletiser hence 1st January 2022 is the start date.

1) As clarified in earlier sections of this DVR, the electricity bills, commissioning certificate for first pelletiser and production logs are attached.
2) As demonstrated in OSV, the Collections are by manual sorting using conveyor belts and trucked to Recycling Instance.
3) The National Hot spotting Report for Kenya along with the PLASTEAX database is attached with this revised JPD&MR.
4) As demonstrated during OSV, the waste collected from Collection Instance is directly sent to Ethothia Recycling Instance using trucks, the ownership of the same is attached with this JP&MR.
5) Weighbridge certificate for the trucks bringing in plastic waste from Collection Instance are submitted.
6) NEMA Licenses and weighbridge certificates for waste imported to Ehothia and exported from collection centres to demonstrate authorisation from local jurisdiction are submitted with JPD&MR.
7) The NEMA Licenses for Ehothia Recycling Instance are submitted to fulfill this query.
8) The Penetration Rate Calculation based on PLASTEAX database and Baseline report and UN Hot spotting report for demonstrating additionality demonstrate that there is plastic waste available that would not have been collected had it not been for the project.
9) The Penetration Rate Calculation based on PLASTEAX database and Baseline report and UN Hot spotting report for demonstrating additionality demonstrate that there is plastic waste available that would not have been collected had it not been for the project.
10) Biomedical waste incineration facility was demonstrated during OSV

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| Furthermore, the receipts for informal waste workers are submitted along with the sales registers from each collection centre, during OSV at each collection centre's sales register was demonstrated for examination. |
| **Documentation provided by project participant** |
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| **VVB assessment** **Date:** 15/09/2023 |
| VVB has assessed the revised the JPD&MR v2.0 with the points raised the respective CAR 18.<br><br>Hence the CAR 18 has been closed. |

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|---|---|---|---|---|
| **CAR** | 19 | **Section no.** | 3.3 | **Date:** 11/04/2023 |
| **Description of CAR** | | | | |
| In section 3.2 of the Plastic Program JPD&MR (v01.1), it is stated that the grouped project activity receives plastic waste from multiple sources for both collection (dumpsites, water bodies, and open land) and recycling (unorganized dumpsites, water bodies, and open land, waste management agencies and from the households and/or commercial entities) activity.<br><br>However, the project boundary description provided in the referred section of the Plastic Program JPD&MR (v01.1), is not in line with the requirements as stipulated under section 3.8 of Plastic Waste Standard (v1.0), section 5 of applied methodology PWRM0001 and PWRM0002 (v 1.1) and section 3.3 of JPD&MR template (v1.0):<br><br>1. The diagram or map of the project boundary doesn't clearly depict the physical locations of the various installations or management activities taking place as part of the project activity.<br>2. The project boundary table doesn't identify the baseline and project scenario based on the different sources of the plastic waste respective to the type of the activity i.e., collection and recycling.<br>3. For both plastic collection and recycling project types, the provided description doesn't include the plastic waste sources identified in the project boundary and where the managed plastic waste is sent in the next stage after the project activity. | | | | |
| **Project participant response** | | | | **Date:** 06/09/2023 |
| As demonstrated during the OSV<br>1) Updated project boundary and justification in line with redefined instances are submitted<br>2) The project boundary table is updated within the JPD&MR under Table 13.<br>3) All project location latitude and longitude coordinates are appended along with process flow slide. | | | | |
| **Documentation provided by project participant** | | | | |
| | | | | |
| **VVB assessment** | | | | **Date:** 15/09/2023 |
| PP has now updated the project boundary and justification is in line with the redefined instances along with the updated project boundary table for both plastic collection and recycling project types in the JPD&MR v2.0.<br><br>Hence the CAR 19 has been closed. | | | | |

| | | | | |
|---|---|---|---|---|
| **CAR** | 20 | **Section no.** | 3.5 | **Date:** 11/04/2023 |
| **Description of CAR** | | | | |
| The grouped project activity includes both collection and recycling activities. However, the description provided in the referred section of the Plastic Program JPD&MR (v01.1), lacks in the following:<br>1. It doesn't establish the baseline scenario separately for collection and recycling activities. | | | | |

2. While establishing the baseline scenario, PP has stated that this project is the first recycling plant in Kenya for single-use plastics (trays, cups, etc.). PP shall provide evidence to substantiate the claim.
3. Moreover, the description neither provides guidance for future instances for establishment of baseline scenario nor does it provide information on list of verifiable and objective evidence to be provided by future instances for demonstration of the same.

| Project participant response | Date: 06/09/2023 |
|---|---|

It is submitted by the PP, and as demonstrated in the OSV, In the updated JPD& MR, the updated and r edefined instances for collection and recycling separately are described in detail. This includes

1. Plastic Waste B aseline report and Kenya PLASTEAX database report highlighting collection and recycling capacities across Kenya.
2. Taka Taka Solutions has been covered by general media and the UNFCCC for its work on Single Use Plastics and the same published materials are submitted. The Baseline report and UN Kenya Plastic Hotspot report for recycling capacities highlight lack of recycling capacities and are submitted as such.
3. Redefined instance definition of collection activity including new catchment areas for collection identified.

| Documentation provided by project participant |
|---|
| |

| VVB assessment | Date: 15/09/2023 |
|---|---|

PP has now updated the plastic waste baseline report and data from the Kenya PLASTEAX database into JPD&MR v2.0, outlining the collection and recycling capacities across Kenya.

Hence, the CAR 20 has been closed.

| CAR | 21 | Section no. | 3.6 | Date: 12/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of the Plastic Program JPD&MR (v01.1), the description provided for “Regulatory Surplus” is not in accordance with the requirements of the applied methodologies PWRM0001 and PWRM0002 (v 1.1).

For collection activity:

1. Doesn’t list all relevant national, regional and local laws and regulations for plastic waste treatment, and end use specific to recycling in the relevant region.
2. Doesn’t demonstrate whether, based on an examination of current practice in the region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically enforced and whether non-compliance with those requirements is widespread in the host country.
3. Doesn’t include information on all extended producer responsibility (EPR) schemes relevant to the project activity in the region.
4. Project activity identifies materials collected by different type (PET / PP / PS or EPS / HDPE / LDPE). However, an assessment has not been conducted for each material type included in the project activity to determine if legal or regulatory requirements for collection are applicable for these types and demonstrate regulatory surplus for those types.

For recycling activity:

1. Doesn’t list all relevant national, regional, and local laws and regulations for plastic waste treatment, specific to collection in the relevant region.
2. Doesn’t demonstrate whether, based on an examination of current practice in the region in which the law or regulation applies, those applicable legal or regulatory requirements are

systematically enforced and whether non-compliance with those requirements is widespread in the host country.

3. Doesn't include information on all extended producer responsibility (EPR) schemes relevant to the project activity and material types (PET / PP / PS or EPS / HDPE / LDPE) in the region.
4. Project activity identifies materials collected by type (PET / PP / PS or EPS / HDPE / LDPE). However, an assessment has not been conducted for each material type included in the project activity to determine if legal or regulatory requirements for recycling are applicable for these types and demonstrate regulatory surplus for those types.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

The PP submits the updated criteria in the revised JPD&MR based on the Kenyan Plastic Waste Baseline Report with the quantitative data : The JPD&MR has been updated with the Kenyan Sustainable Waste Management Act , notified in July 2022 which is the most relevant law, furthermore the NEMA is also referenced with its attendant licensing authority of recycling related activities.

1) The updated EPR law was Notified in July 2022, with its Regulations and monitoring to follow through within 2 years of its Notification.
2) As demonstrated during OSV, the Baseline report and Kenyan PLASTEAX plastic hotspotting report highlights the lack of enforcement of laws for plastic waste management
3) Baseline and Kenyan PLASTEAX database hotspot report both quantify the polymer types appropriately based on plastic recycling industry's figures.

**Documentation provided by project participant**

1) Baseline report
2) UN Kenya plastic waste hotspot report
3) EPR Notification of July 2022
4) EIA Section for laws and legal notification

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

PP has now submitted the update criteria int eh revised JPD&MR with the baseline report, notifications of EPR and EIA.

Hence the CAR 21 has been closed.

| **CAR** | 22 | **Section no.** | 3.6 | **Date:** 24/03/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of the Plastic Program JPD&MR (v01.1), the demonstration of "Penetration Rate" is not in accordance with the requirements of the applied methodologies PWRM0001 and PWRM0002 (v 1.1).

Recycling:

1. The penetration rate has not been demonstrated for all type of material managed by the recycling facility.
2. No information has been provided whether the recycling capacity as stated excludes other project activities undergoing validation or that are already registered with the Plastic Program, and plastic waste production (tonnes/year) in the region.
3. The methodology requires that values used for demonstration of penetration rate shall not be older than 3 years at the time of validation. PP shall provide the source of data and values demonstrate that the data used in not less than 3 years old.
4. PP shall change the nomenclature of types of plastic waste materials provided in the section and make it consistent with the information as provided in section 1.2 of Plastic Program JPD&MR (v01.1) and also with categories as allowed under Plastic waste standard.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

It is submitted by the PP the following:

1) The penetration rates are based upon the PLASTEAX database and B aseline report for Kenya plastic waste management scenario. As there are very limited studies with sufficient quantitative data and analysis for the various polymers and their management in Kenya, Project Proponents had used the Baseline study before the commencement of the project to base the set up of the project. The other references used include the Kenya Hot Spot Report. This is inline with the PWRM0001 and PWRM0002 Section 7 for additionality. To further demonstrate additionality for project polymers, the PLASTEAX database for 2019 is submitted to demonstrate the penetration rate.
2) This has been updated in the revised Section 3.6 JPD&MR as new registration and not under any process with any other eligible plastic credit Standard.
3) The updated JPD&MR references the Plasteax database and Baseline Report upon which the investment for this project was taken by the PP. Both are submitted.
4) The sources of the values used and the reference literature is submitted inline with the requirements of the PWRM0001 and PWRM0002.

The updated JPD&MR maintains the consistency for polymer types recycled.

**Documentation provided by project participant**

1) Baseline report detailing the penetration rate data
2) Kenyan plastic hotspot report
3) PLASTEAX Database

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has reviewed the provided baseline report detailing the penetration rate data and the PLASTEAX database and confirms the additionality.

Hence the CAR 22 has been closed.

| **CAR** | 23 | **Section no.** | 5.2 | **Date:** 12/04/2023 |
|---|---|---|---|---|

**Description of CAR**

The information provided in the tables for monitored parameters in the referred section of the Plastic Program JPD&MR (v01.1), has not be duly filled in accordance with the guidance provided in the JPD&MR template (v1.0).

1. **Value:** PP shall provide real monitored value for the parameter
2. **Source of data:** the description has been copied from the methodology. PP shall clearly state the project specific source of data from where the value of parameter has been taken from.
3. **Description of measurement methods and procedures applied:** PP shall specify project specific measurement methods and procedures, any standards or protocols to be followed, and the person/entity responsible for the measurement. Include information regarding the accuracy of the measurements (e.g., make, model, serial number, calibration requirements, accuracy class).
4. **Frequency of monitoring/recording:** PP shall specify project specific measurement and recording frequency for the monitored parameter in accordance with the requirements of the applied methodology.
5. **Quality Assurance/Quality Control (QA/QC) procedures to be applied:** PP shall specify quality assurance and quality control (QA/QC) procedures to be applied, including the calibration procedures.

The above-mentioned requirements shall be provided for all the parameters listed in the refereed section of Plastic Program JPD&MR (v01.1).

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

The PP is submitting the updated JPD&MR with redefined instances for collection and recycling. The monitoring parameters are updated in line with the requirements of PWRM0001 and PWRM0002 Monitoring requirements.

1) The JPD& MR is updated to reflect the actuals volumes, this was also shared with the team onsite
2) The source of the data is indeed the collection points and is measured using the collection activity's project scales. The source of the waste can be a single instance or combination of buy back centers, MRF and Industrial sources as evidenced in the updated definition of collection activity instance and recycling activity instance.
3) Project weigh scale calibration certificates
4) Responsibility organogram is submitted.
5) JPDMR is further updated to reflect monitoring procedures.
6) Signed supervisor log books.
7) Sales receipts

**Documentation provided by project participant**

1) Weighscale calibration
2) Updated Volumes sheet
3) Responsibility organogram
4) Supervisor log books
5) Sales receipts

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has reviewed the update JPD&MR with the provided documents and confirm that CAR 23 has been closed

| **CAR** | 24 | **Section no.** | 5.3 | **Date:** 12/04/2023 |
|---|---|---|---|---|

**Description of CAR**

The information provided referred section of the Plastic Program JPD&MR (v01.1), has not be duly filled in accordance with the guidance provided in the JPD&MR template (v1.0). The description provided lacks in following information:

1. The process and schedule for obtaining, recording, compiling, and analysing the monitored data and parameters is not provided.
2. The methods for measuring, recording, storing, aggregating, collating and reporting data and parameters is not provided.
3. The procedures for calibrating monitoring equipment and information on the person or entity responsible for calibration has not been provided.
4. The organizational structure, responsibilities and competencies of the personnel that will be carrying out monitoring activities has not been provided.
5. The QA/QC procedure in accordance with the guidelines under section 9.3 of applied methodologies has not been provided.
6. The procedures for handling non-conformances with the validated monitoring plan has not been provided.
7. A line diagrams to display the data collection and monitoring points for collection and recycling activities has not been provided.
8. Information on data management system, including the location, backup, and retention of stored data.
9. No information on data archiving process (which requires data to be archived electronically and stored in a secure and retrievable manner for at least two years after the end of the project crediting period) has been provided.

Furthermore, PP shall explain why a sampling approach, including target precision levels, sample sizes, sample site locations, frequency of measurement and QA/QC procedures have not been provided for collection activities considering that this is a grouped project there can be multiple collection points or recycling facilities in near future.

| Project participant response | Date: 06/09/2023 |
|---|---|

As demonstrated during the OSV and inline with the PWRM0001 and PWRM0002 Monitoring parameters, the PP is submitting the following to fulfill the above :

1) SoP for collection and recycling instance is provided
2) SoP for data collection and arrangement
3) Calibration certificates of weighbridge
4) Line diagram for process flow and responsibility based organogram
5) QA/QC appended
6) Line diagram and responsibility based organogram submitted
7) All project documents, files and data are stored at Head Office in both print and digital formats
8) Data archive is maintained by project team on onsite server , example is submitted with this
9) SOP for data archiving is submitted

As with the redefined collection instances and updated volumes, the PP is submitting the above-mentioned SOPs in the Documentation Folder.

**Documentation provided by project participant**

1) SoPs
2) Organogram slide
3) QA/QC system
4) Data archive sample sheet

| VVB assessment | Date: 15/09/2023 |
|---|---|

VVB has reviewed the provided list of documents and confirm the CAR 24 has been closed.

| CAR | 25 | Section no. | 6.1 | Date: 12/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of the Plastic Program JPD&MR (v01.1), doesn't provide information in accordance with the guidance provided in the JPD&MR template (v1.0) and lacks in following:

1. Doesn't provide information on the implementation and operational status of the project activity during the monitoring period, including information on any events that impacted the plastic waste collected and/or recycled and its monitoring.
2. Description of the installed technologies, technical processes, and equipment, include diagrams, where appropriate.
3. Information on the implementation and actual operation of the project activity, including relevant dates (e.g., construction, commissioning, start of operation). If the project activity consists of more than one site, describe the status of implementation, and start date of operation for each site.
4. If the project activity is implemented in phases, indicate the progress of the project activity achieved in each phase.

| Project participant response | Date: 06/09/2023 |
|---|---|

The updated JPD reflects the following changes for Section 6.1:

1) The implementation and operational status of the project activities as defined for collection instance and recycling instance separately.
2) The updated JPD reflects the currently installed and capacity addition of collection instance and recycling instance separately to reflect the new capacity addition.
3) Updated JPD&MR specifies the actual dates recorded in the Monitoring Report with the required details of start date, commissioning inline with the guidance of Plastic Standard.
4) The JPD & MR is updated to reflect the status of collection and recycling instances.

**Documentation provided by project participant**

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB confirm the updated JPD&MR reflects the changes of operational status of the project activites , instances, recycling instance separately with installed and capacity addition details

Hence CAR 25 has been closed.

| **CAR** | 26 | **Section no.** | 6.1.2 | **Date:** 12/04/2023 |
|---|---|---|---|---|

**Description of CAR**

In the referred section of the Plastic Program JPD&MR (v01.1), doesn't provide information on end-of-life destination of the collected or recycled plastic and evidence, such as contractual documents between the project proponent and the recipient of the collected and/or recycled plastic.

| **Project participant response** | **Date:** 06/09/2023 |
|---|---|

It is submitted in the revised and updated JPD&MR that the PP has updated the JPD & MR to clearly highlight the end destinations of all streams collected by the PP under both Collection and Recycling instances. The invoices and contracts for the same are submitted.

**Documentation provided by project participant**

1) Invoice for plastic pellet buyers for recycled plastic pellets.
2) Transport invoices and diesel fuel slips

| **VVB assessment** | **Date:** 15/09/2023 |
|---|---|

VVB has reviewed the provided invoices of the plastic pellets buyers and agreements to confirm the end-of-life.

Hence CAR 26 has been closed.

| **CAR** | 27 | **Section no.** | 7.2 | **Date:** 12/04/2023 |
|---|---|---|---|---|

**Description of CAR**

The description in the referred section of the PLASTIC PROGRAM JPD&MR (v01.1), is very generic in nature and doesn't provide project specific information as per the requirements of section 5.3 of JPD&MR template (v1.0) and section 9 of the applied methodology:

1. List of all the equipment that require calibration, calibration frequency and procedures for calibrating monitoring equipment.
2. provide a flow chart / line diagram depicting all the entire process (collection as well as recycling), information on key measurement points, measurement procedure equipment used, information on process for recording, storing, aggregating, collating, and reporting data and parameters and data transfer and protection.

| |
|---|
| 3. Provide an organogram depicting structure, roles, responsibilities and competencies of the personnel that will be carrying out monitoring activities with respect to the grouped project activity.<br>4. Policy or procedure put in place by the PP to account for situation related to oversight and accountability of monitoring activities.<br>5. Provide in detail the procedures put in place by the PP for internal auditing and QA/QC.<br>6. Provide in detail the procedures put in place by the PP for handling non-conformances with the validated monitoring plan. |
| **Project participant response** **Date:** 06/09/2023 |
| The PP submits the following within the revised JPD&MR in line with the requirements of the Plastic Standard:<br>1) The list of project scales is submitted along with the calibration certificates in line with the requirements of the plastic standard 3.12.3 as Annexure 7 in JPD&MR<br>2) The PP Submits the updated "Process Flow " attached under Section 7.2<br>3) The PP Submits the updated "Responsibility Organogram" Section 7.3<br>4) SoP for oversight and accountability is appended in documentation folder<br>5) QA/QC protocol is submitted in documentation folder<br>6) SoP for non-conformance is submitted in documentation folder |
| **Documentation provided by project participant** |
| 1) Responsibility Organogram ppt<br>2) Process Flow and Responsibility Organogram slides<br>3) SoPs for oversight and non-conformance<br>4) QA/QC |
| **VVB assessment** **Date:** 15/09/2023 |
| VVB reviewed the provided organogram, process, SOPs & QC/QA documents as per the plastic standard.<br><br>Hence the CAR 27 has been closed. |

**Table 3. FAR from this Validation & Verification:**

| | | | | |
|---|---|---|---|---|
| **FAR** | 01 | **Section no.** | Table no 21 | **Date:** 15/12/2023 |
| **Description of FAR** | | | | |
| The end destination of PET material is required to be verified by the next VVB in compliance with the requirements specified in applicability condition 4 of PWRM0001, v1.1, and applicability condition 7 of PWRM0002, v1.1 for collection and recycling activity respectively for consideration of collection and recycling credits for material type PET under the current 13 PIs of collection activities and the 1*st* PI of recycling activity as well as future instances being added to the grouped project | | | | |

# APPENDIX 4: ABBREVIATIONS

| S. No | Abbreviations | Full form |
|---|---|---|
| 1 | PP | Project Proponent |
| 2 | HDPE | High density polyethylene |
| 3 | LDPE | Low density polyethylene |
| 4 | PP | Polypropylene |
| 5 | PS | Polystyrene |
| 6 | PET | Polyethylene Terephthalate |
| 7 | PVC | Polyvinyl Chloride |
| 8 | PWRM 0001 | Plastic Waste Collection Methodology |
| 9 | PWRM 0002 | Plastic Waste Recycling Methodology |
| 10 | VVB | Validation and Verification Body |

# APPENDIX 5: CERTIFICATE OF COMPETENCY

Carbon CHECK

**Carbon Check (India) Private Limited**

*Certificate of Competency*

**Mr. Amit Anand**

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

*for the following functions and requirements:*

| | | | |
|---|---|---|---|
| ☒ Validator | ☒ Verifier | ☒ Team Leader | ☒ Technical Expert |
| ☒ Technical Reviewer | ☐ Health Expert | ☐ Gender Expert | ☒ Plastic Waste Expert |
| ☒ CCB Expert | ☐ Legal Expert | ☒ Financial Expert | ☐ Environmental, Health and Safety financial matters |
| ☒ SDG+ | ☒ Social no-harm(S+) | ☒ Environment no-harm(E+) | |
| ☒ Local Expert for India and RSA | | | |

*in the following Technical Areas:*

| | | | | |
|---|---|---|---|---|
| ☒ TA 1.1 | ☒ TA 1.2 | ☐ TA 2.1 | ☒ TA 3.1 | ☐ TA 4.1 |
| ☐ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☐ TA 7.1 | ☒ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☒ TA 13.1 | ☒ TA 13.2 |
| ☒ TA 14.1 | ☒ TA 15.1 | ☐ TA 16.1 | | |

**Issue Date**
**5th December 2023**

**Expiry Date**
**31st December 2024**

Priya Suman

**Ms. Priya Suman**
**Compliance Officer**

Sanjay Agarwalla

**Mr. Sanjay Kumar Agarwalla**
**Technical Director**

**Revision History of the document:**

| Revision date | Summary of changes |
|---|---|
| 2022[1] | Annual revision |
| Jan 2023 | Annual revision |
| Dec 2023 | Change in the template due to revision in TA and function |

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon CHECK

# Carbon Check (India) Private Limited

## Certificate of Competency

### Mr. Sumant Shekhar

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

*for the following functions and requirements:*

| | | | |
|---|---|---|---|
| ☐ Validator | ☐ Verifier | ☐ Team Leader | ☐ Technical Expert |
| ☐ Technical Reviewer | ☐ Health Expert | ☐ Gender Expert | ☒ Plastic Waste Expert |
| ☐ CCB Expert | ☐ Legal Expert | ☐ Financial Expert | ☐ Environmental, Health and Safety financial matters |
| ☐ SDG+ | ☐ Social no-harm(S+) | ☐ Environment no-harm(E+) | |
| ☒ Local Expert for India | | | |

*in the following Technical Areas:*

| | | | | |
|---|---|---|---|---|
| ☐ TA 1.1 | ☐ TA 1.2 | ☐ TA 2.1 | ☐ TA 3.1 | ☐ TA 4.1 |
| ☐ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☐ TA 7.1 | ☐ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☐ TA 13.1 | ☐ TA 13.2 |
| ☐ TA 14.1 | ☐ TA 15.1 | ☐ TA 16.1 | | |

**Issue Date**

**5th December 2023**

**Expiry Date**

**31st December 2024**

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

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CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

# Carbon Check (India) Private Limited

## Certificate of Competency

### Mr. Willis Austine Ochieng Okumu

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

*for the following functions and requirements:*

| | | | |
|---|---|---|---|
| ☐ Validator | ☐ Verifier | ☐ Team Leader | ☐ Technical Expert |
| ☐ Technical Reviewer | ☐ Health Expert | ☐ Gender Expert | ☐ Plastic Waste Expert |
| ☐ CCB Expert | ☐ Legal Expert | ☐ Financial Expert | ☐ Environmental, Health and Safety financial matters |
| ☐ SDG+ | ☐ Social no-harm(S+) | ☐ Environment no-harm(E+) | |
| ☒ Local Expert for Kenya | | | |

*in the following Technical Areas:*

| | | | | |
|---|---|---|---|---|
| ☐ TA 1.1 | ☐ TA 1.2 | ☐ TA 2.1 | ☐ TA 3.1 | ☐ TA 4.1 |
| ☐ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☐ TA 7.1 | ☐ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☐ TA 13.1 | ☐ TA 13.2 |
| ☐ TA 14.1 | ☐ TA 15.1 | ☐ TA 16.1 | | |

**Issue Date**

**1st December 2023**

**Expiry Date**

**31st December 2024**

Priya Suman

**Ms. Priya Suman**
**Compliance Officer**

Sanjay Agarwalla

**Mr. Sanjay Kumar Agarwalla**
**Technical Director**

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CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

# Carbon Check (India) Private Limited

## Certificate of Competency

### Mr. Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

*for the following functions and requirements:*

| | | | |
|---|---|---|---|
| ☒ Validator | ☒ Verifier | ☒ Team Leader | ☒ Technical Expert |
| ☒ Technical Reviewer | ☐ Health Expert | ☐ Gender Expert | ☒ Plastic Waste Expert |
| ☒ CCB Expert | ☐ Legal Expert | ☒ Financial Expert | ☒ Environmental, Health and Safety financial matters |
| ☒ SDG+ | ☒ Social no-harm(S+) | ☒ Environment no-harm(E+) | |

☒ Local Expert for India/RSA and Spanish speaking countries

*in the following Technical Areas:*

| | | | | |
|---|---|---|---|---|
| ☒ TA 1.1 | ☒ TA 1.2 | ☐ TA 2.1 | ☒ TA 3.1 | ☒ TA 4.1 |
| ☒ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☒ TA 7.1 | ☐ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☒ TA 13.1 | ☒ TA 13.2 |
| ☒ TA 14.1 | ☒ TA 15.1 | ☐ TA 16.1 | | |

**Issue Date**

**5th December 2023**

**Expiry Date**

**31st December 2024**

Ms. Priya Suman
**Compliance Officer**

Mr. Sanjay Kumar Agarwalla
**Technical Director**

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| 2022[1] | Annual revision |
| Jan 2023 | Annual revision |
| Dec 2023 | Change in the template due to revision in TA and function |

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[1] Please refer to previous version of FM 7.9 for the revision history

Carbon CHECK

# Carbon Check (India) Private Limited

## Certificate of Competency

### Mr. Bhuvneshwar Rai

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

*for the following functions and requirements:*

| | | | |
|---|---|---|---|
| ☒ Validator | ☒ Verifier | ☒ Team Leader | ☒ Technical Expert |
| ☐ Technical Reviewer | ☐ Health Expert | ☐ Gender Expert | ☒ Plastic Waste Expert |
| ☐ CCB Expert | ☐ Legal Expert | ☐ Financial Expert | ☐ Environmental, Health and Safety financial matters |
| ☐ SDG+ | ☐ Social no-harm(S+) | ☐ Environment no-harm(E+) | |
| ☒ Local Expert for India | | | |

*in the following Technical Areas:*

| | | | | |
|---|---|---|---|---|
| ☐ TA 1.1 | ☐ TA 1.2 | ☐ TA 2.1 | ☐ TA 3.1 | ☐ TA 4.1 |
| ☐ TA 4. n | ☐ TA 5.1 | ☐ TA 5.2 | ☐ TA 7.1 | ☐ TA 8.1 |
| ☐ TA 9.1 | ☐ TA 9.2 | ☐ TA 10.1 | ☐ TA 13.1 | ☐ TA 13.2 |
| ☐ TA 14.1 | ☐ TA 15.1 | ☐ TA 16.1 | | |

**Issue Date**

**5th December 2023**

**Expiry Date**

**31st December 2024**

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

**Revision History of the document:**

| Revision date | Summary of changes |
|---|---|
| August 2023 | Initial Adoption |
| Dec 2023 | Changes in the template due to revision in TA and function |

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

# APPENDIX 6: Instance-wise tables for net collected plastic waste

| PWRP-Buy Back | P collected | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Collection | as per the plastic sorting reports | | | | | | | | |
| Buy Back Instance Collection (BB01) | 2022 (Tonne) | | | | | | | | |
| All materials made of the seven types of plastic: | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Total |
| Polyethylene terephthalate (PETE or PET) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polypropylene (PP), | 89 | 97 | 149 | 104 | 118 | 84 | 24 | 50 | 715 |
| expanded polystyrene (EPS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polystyrene (PS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| other plastics (O) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| high-density polyethylene (HDPE) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| low-density polyethylene (LDPE) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polyvinyl chloride (PVC), | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| Total | 89 | 97 | 149 | 104 | 118 | 84 | 24 | 50 | 715 |

| Collection | as per the plastic sorting reports | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MRF Collection | 2022 (Tonne) | | | | | | | | |
| All materials made of the seven types of plastic: | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Total |
| Polyethylene terephthalate (PETE or PET) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polypropylene (PP), | 26 | 33 | 36 | 34 | 32 | 37 | 37 | 33 | 268 |
| expanded polystyrene (EPS) | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| polystyrene (PS) | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| other plastics (O) | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| high-density polyethylene (HDPE) | 24 | 20 | 29 | 22 | 17 | 20 | 15 | 00 | 147 |
| low-density polyethylene (LDPE) | 28 | 39 | 42 | 33 | 30 | 43 | 39 | 71 | 325 |
| polyvinyl chloride (PVC), | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Total | 80 | 94 | 109 | 89 | 80 | 102 | 91 | 104.00 | 740 |

| Collection | as per the plastic sorting reports | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Industrial Clients Plastic waste collection (post sorting) | 2022 (Tonne) | | | | | | | | |
| All materials made of the seven types of plastic: | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Total |
| Polyethylene terephthalate (PETE or PET) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polypropylene (PP), | 3 | 7 | 0 | 0 | 0 | 2 | 2 | 3 | 17 |
| expanded polystyrene (EPS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| polystyrene (PS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| other plastics (O) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| high-density polyethylene (HDPE) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| low-density polyethylene (LDPE) | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 34 | 46 |
| polyvinyl chloride (PVC), | 0 | 0 | 0 | 0 | 0 | 0 | 00 | 00 | 0 |
| **Total** | **3** | **7** | **0** | **0** | **0** | **2** | **14** | **37** | **63** |

| Polymer/Collection Instance wise breakdown | 2022 (tonne) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| All materials made of the seven types of plastic: | Dandora | Thika | Kitengla | Lusigetti | Ehothia | IC-01 | IC-02 | Total |
| Polyethylene terephthalate (PETE or PET) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polypropylene (PP), | 692 | 23 | 1 | 82 | 184 | 18 | 0 | 1000 |
| expanded polystyrene (EPS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polystyrene (PS) or | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| other plastics (O) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| high-density polyethylene (HDPE) | 0 | 0 | 0 | 71 | 76 | 0 | 0 | 147 |
| low-density polyethylene (LDPE) | 0 | 0 | 0 | 105 | 221 | 0 | 45 | 371 |
| polyvinyl chloride (PVC), | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| **Total** | **691** | **22** | **1** | **263** | **488** | **17** | **45** | **1518** |

| Summation Table | 2022 (tonne) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **All materials made of the seven types of plastic:** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Total** |
| Polyethylene terephthalate (PETE or PET) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polypropylene (PP), | 118 | 137 | 185 | 138 | 150 | 123 | 63 | 86 | 1000 |
| expanded polystyrene (EPS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| polystyrene (PS) or | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| other plastics (O) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| high-density polyethylene (HDPE) | 24 | 20 | 29 | 22 | 17 | 20 | 15 | 0 | 147 |
| low-density polyethylene (LDPE) | 28 | 39 | 42 | 33 | 30 | 43 | 51 | 105 | 371 |
| polyvinyl chloride (PVC), | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00 |
| **Total** | **170** | **196** | **256** | **193** | **197** | **186** | **129** | **191** | **1518** |