Verification Report

Verification of Maduru Oya Left Bank Canal Sluice Small Hydropower Project

Report No: SLCCS/VRR/2023/02
Version : 01

Sri Lanka Climate Fund (Pvt) Ltd
“Sobadam Piyasa”
No. 416/C/1, Robert Gunawardana Mawatha,
Battaramulla.

MADURU OYA LEFT BANK CANAL SLUICE SMALL HYDROPOWER PROJECT - SLCCS
Version 1.0

Client	Eagle Power (Pvt) Ltd.
Completion Date of the Verification Report	25/08/2023
Version No.	01
Country	Sri Lanka
Monitoring Period	01/03/2021 to 31/12/2022
Estimated SCER in this monitoring period	22,025 tCO_2e
Verified SCER	25,036 tCO_2e
Contact details	Mr. Kapila Wijesekara Director – General Manager Tel: 070 382 2454 E-mail: kapila@ethimale.lk

Summary of the verification report

Validation & Verification Division of Sri Lanka Climate Fund has performed the verification of the emission reductions for the "Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project", operating under Eagle Power (Pvt) Ltd., for the period of 01/03/2021 to 31/12/2022

It is our verification opinion that the GHG emission reductions reported for the project in the monitoring report (Version 02) of 01th June 2023 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology AMS-I.D (version 18) and meets all relevant SLCCS requirements.

Sri Lanka Climate Fund is able to verify that the emission reductions from "Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project" in Sri Lanka during the period 01 March 2021 to 31 December 2022 is 25,036 tons of CO_2 equivalent.

Project Title	Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project		
Report No	SLCCS/VRR/2023/02		
Work carried out by	Validation & Verification Division Sri Lanka Climate Fund (Pvt) Ltd		
Work Approved by	Ms. Harshani Abeyrathna Chief Executive Officer Sri Lanka Climate Fund (Pvt) Ltd		
Version No.	01	**Date of Version**	25/08/2023
No of Pages	21		

CONTENT

ABBREVIATIONS

BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEB	Ceylon Electricity Board
CL	Clarification Request
CMA	Carbon Management Assessment
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
FAR	Forward Action Request
GHG(s)	Greenhouse Gas(es)
GWP	Global Warming Potential
MR	Monitoring Report
PE	Project Emission
PP(s)	Project Participant(s)
SCER(s)	Sri Lanka Certified Emission Reduction(s)
SLCCS	Sri Lanka Carbon Crediting Scheme
SLCFVAL	Validation Division of Sri Lanka Climate Fund
SLSEA	Sri Lanka Sustainable Energy Authority
VVS	Validation and Verification Standard

1 INTRODUCTION

Eagle Power (Pvt) Ltd., has requested Sri Lanka Climate Fund (SLCF) to carry out the verification and certification of emission reductions reported for the "Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project" in the period 01 March 2021 to 31 December 2022. This report contains the findings from the verification and a certification statement for the Sri Lankan Certified Emission Reductions (SCERs).

1.1 Objective

The purpose of this verification was to have an independent review of the monitoring report. The objective of this verification was to verify emission reductions reported for the Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project in Sri Lanka for the period of 01/03/2021 to 31/12/2022. The information included in the Monitoring Report and the supporting documents were reviewed against the requirements as set out by the SLCCS.

1.2 Scope and criteria

The verification scope is given as a thorough independent and objective assessment of the monitoring report including especially:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission reduction data is sufficiently supported by evidence.

The verification shall ensure that reported emission reductions are complete and accurate in accordance with SLCCS criteria.

1.3 Description of the Project Activity

Title of the Project Activity	Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project
Project Participant(s)	Eagle Power (Pvt) Ltd.
Host Party(ies)	Sri Lanka
Monitoring Methodology	AMS I.D. /Version 18/EB 81
Project's crediting period	01/03/2021 to 29/02/2028
Period verified in this verification	01/03/2022 to 31/12/2022

1.4 Methodology for Determining Emission Reductions

The main purpose of the project activity is to generate electricity using the left bank irrigation canal of the Maduru Oya reservoir owned and operated by Mahaweli Development Authority, Sri Lanka. The project is located in the Left Bank Canal Sluice. The energy generated from the power plant is exported to the national grid operated by Ceylon Electricity Board (CEB), thereby reduces the emission of off-site fossil fuel burning required for the generation of

electricity. The estimated annual power generation output of Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project is 15.99 GWh/year. The project is intended to be registered as a single renewable energy project complying the methodological requirements of Sectoral scope 1, Type I, AMS-I.D, Grid connected renewable electricity generation,Version 18.0. As per the validated CMA, the expected annual GHG emission reduction resulting in the operation of project is 12,014 tCO_2e/year and the expected total GHG emission reductions in the first monitoring period is 22,025 tCO_2e.

The project's emission reductions are determined as the product of the net electricity exported to the grid and the grid emission factor of the national grid of Sri Lanka. According to the validated CMA, project emission is attributable to the project boundary defined by the project proponent. The emission due to operation of the on-site diesel generator is identified and accounted as a project emission. Leakage emissions are not applicable to the project activity as per the validated CMA.

2 METHODOLOGY

Verification was conducted using SLCCS procedures in line with the requirements specified in the CDM Modalities and Procedures, the latest version of the CDM Validation and Verification Standard. The verification consisted of the following phases:

- Appointment of team members and technical reviewers
- Publication of the monitoring report
- Verification planning
- Desk review of the monitoring report and supporting documents
- On-Site assessment
- Background investigation and follow-up interviews with personnel of the project developer and its contractors
- Draft verification reporting
- The resolution of outstanding issues and corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the certification

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

- Electricity generation - net export to grid and auxiliary consumptions, on a monthly basis
- Project emissions due to import of electricity from grid during plant shut downs
- Grid emission factor.

Verification Team

On the basis of a competence analysis and individual availabilities, a verification team, consisting of one team leader, one technical expert, one team member, as well as one technical reviewer was appointed. The list of involved personnel, the tasks assigned and the qualification status are summarized in the table in **Appendix.**

Name	Company	Role	Task Performed
Mr. Gayan Madusanka	Sri Lanka Climate Fund	TL	☒DR ☒SV ☒RI ☐TR
Ms. Wageesha Alankara	Sri Lanka Climate Fund	TM	☒DR ☒SV ☐RI ☐TR
Mr. Chamara	Sri Lanka Climate Fund	ITR	☐DR ☐SV ☐RI ☒TR

Ariyathilaka			

TL -Team Leader TM- Team Member TE- Technical Expert ITR- Technical Reviewer SV- Site Visit RI- Report Issuance DR- Document Review ITR- Internal Technical Review

2.1. Publication of the monitoring report for public review

According to the SLCCS requirement, the draft MR as received from the project participants, has been made publicly available on the dedicated SLCCS website prior to the verification activity commenced. Stakeholders have been invited to comment on the MR within the 30 days public commenting period.

No comments were received for the monitoring report.

2.2. Desk review of monitoring report and supporting documents

The monitoring reports (Version 01 and 02) the emission reduction calculations, provided in the form of spreadsheets submitted by Eagle Power (Pvt) Ltd., were assessed as a part of the verification.

In addition to the monitoring documentation provided by the project participants, verification team reviewed:

1. The registered Carbon Management Assessment, the monitoring plan contained in the CMA as well as the validation report.
2. The applied monitoring methodology AMS-I.D. (version 18.0)
3. Other operational documents as evidence during the site visit

2.3. On- site inspections

On 12 May 2023, SLCF carried out site visit at the hydro power plant. SLCF verified that the actual implementation and operation of the project is as described in the CMA. The electricity meters used for monitoring electricity (including the calibration records) were checked. Evidence for the reported net generation of electricity was verified.

As part of the on-site inspection, following personnel were interviewed to further verity the documented information.

Name	**Designation**	**Organization / Entity**	**Method (Face to face/ Telephone)**	**Main topics covered**
Kapila Wijesekara	Director /General Manager	Eagle Power (Pvt) Ltd	Face to Face	Project start date, commissioning date, crediting period, Procurement procedures, Issues and challenges associated with the operation of power plant, funding options and regular maintenance and operation

H.M.C.A. Herath	Project Manager/ Mechanical Engineer	Eagle Power (Pvt.) Ltd	Face to Face	Mechanical properties of power plant (Turbine, Generator, Governor, bearing cooling system) Emergency shutdown, Overall data management system, QA/QC procedures applicable to data reporting and communication. Calibration of equipment used in monitoring activities.
Lasith Wanigathunga	Maintenance Manager-Civil Engineer	Eagle Power (Pvt) Ltd	Face to Face	Monitoring parameters, Monitoring plan, personnel engaged in monitoring activities. Data gathering, reporting and archiving

2.4. Independent review

Monitoring report submitted by Eagle Power (Pvt) Ltd. and additional background documents related to the CMA and MR was reviewed. Furthermore, the verification team used additional documentation by third parties like host party legislation, technical reports referring to the MR or to the basic conditions and technical data.

Technical data was reviewed by independent reviewer based on information given in the MR, supporting documents and observations on verification site visit. Before submission of the final verification report a technical review of the whole verification procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under.

The verification team and the technical reviewer have the collective competence necessary to perform the verification. The verification team fulfils the following requirements:

- qualification for all technical area/s (TAs) related to the activity;
- technical experts who provide specific technical, methodological and sectoral knowledge and/or expertise and qualification for TAs can be involved;
- it includes one Team Leader that takes the responsibility to lead the team;
- it includes a Team Member/Verifier;
- at least one member who performs the on-site visit is qualified for all TAs related to the activity;
- at least one member who performs the on-site visit is qualified as Team Leader, even if he/she does not cover this role for the specific activity;
- the same person can cover more than one role.

2.5. Reporting of Findings

A **Clarification Request (CL)** is raised where information is insufficient, unclear or not transparent enough to establish whether the applicable SLCCS requirements have been met.

A **Corrective Action Request (CAR)** is issued where:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,
- The requirements deemed relevant for verification of the project with certain characteristics have not been met or
- There is a risk that the project would not be registered by the SLCCS or that emission reductions would not be able to be verified and certified.

A **Forward Action Request (FAR)** is issued for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

3. VERIFICATION FINDINGS

This section describes the findings from the verification of the emission reductions reported for the Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project for the period 01/03/2021 to 31/12/2022.

3.1. Remaining issues (FARs) from previous validation or verification

According to the validation report (version 01) no issues were required to be closed out during the initial verification. This has been confirmed from the validation report and registered CMA and during the site visit.

3.2. Monitoring report

The monitoring report for the project activity, Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project, Version 02 of 01/06/2023 submitted by Eagle Power (Pvt) Ltd., has been the basis for the verification process. Verification Team confirms that the above MR is based on the currently valid MR template of SLCCS version 03.0 and is completed in accordance with the applicable CDM methodology.

3.3. Project implementation

The project was implemented and commissioned on 17/06/2011. First monitoring period (01/03/2021 to 31/12/2022) was within the eligible crediting period.

Actual implementation of the registered project activity is installation of a 5 MW hydro power project at Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project, Dimbulagala Divisional Secretariat, Polonnaruwa district, as per the CMA Version 02 dated 15/05/2023. During the verification assessment, it was confirmed that the power plant is installed a semi-underground reinforced concrete structure with two identical Kaplan type power plants. The installed capacity of generator is 5 MW which runs at its peak efficiency in the maximum water release from the reservoir.

Power generated by the power house is exported to national transmission lines of 33 kV through a step-up transformer supplied by CEB. The control room attached to the power plant is equipped with modern safety systems and equipment. The staff employed in the power plant is well trained to handle and undertake emergency plant shut downs and overhauls as per the best protocols.

The details of the hydro power generation systems with respect to installation and capacity have been verified to be consistent with description indicated in the CMA. The actual implementation of the project during this verification period was verified from name plate capacities of each turbine and generator, monitoring equipment and their accuracy levels.

3.4. Post registration changes

During this verification period no post-registration change is observed. The monitoring and verification of the project activity is as per the CMA version 02 of 15.05.2023

3.5. Methodology for determining Emission Reductions

3.5.1. Applicability

The project falls under Type I: Renewable Energy Projects and rightly applies the approved methodology AMS-I.D., Grid connected renewable electricity generation, Version 18 and it valid from 28th November 2014.

All criteria for applicability of selected methodology are fulfilled. The project is a grid connected hydro power project and is confirmed from approval from Ceylon Electricity Board. The project activity is a Greenfield project activity resulting in the generation of renewable energy.

3.5.2. Compliance of the monitoring plan with the monitoring methodology

and applicable methodological tools

During this monitoring period, the validated and registered CMA was found to be in accordance with the applied methodology, AMS-I.D version 18.0. All monitoring parameters, monitoring and

calibration procedures follow the methodology requirements. No recommendation was made during this verification.

3.5.3. Compliance of monitoring with monitoring plan

The following parameters have been monitored in accordance with the monitoring plan in the registered CMA and the monitoring report.

Data/ Parameter	Source of Data	Reported value for the project period
Combined Margin CO_2 Emission Factor	Sri Lanka Sustainable Energy Authority	0.7512 tCO_2e/MWh (year 2020)
Net Energy Exported to CEB	CEB invoices	33,334.04 MWh (March 2021 –December 2022)
Fuel consumption of on-site diesel generator	Direct Measurements	400 L (March 2021 – December 2022)

3.5.4. Data and parameters monitored ex-post

Data / Parameter	Net Electricity Supplied to the grid ($EG_{p.j.y}$)
Frequency of measuring/recording	Monthly
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Monitoring equipment	Bidirectional Energy meter Accuracy class of the meter- class 01
Calibration frequency/interval	Annual
Is the calibration interval in line with the monitoring plan of the CMA?	Yes, the calibration frequency indicated in the CMA is “Annual”. The calibration

	frequency was verified during the verification.
Company performing the calibration	CEB
Did calibration confirm proper functioning of monitoring equipment? (Yes/No)	Yes
Does the calibration cover the monitoring period?	Yes.
How were the values in the monitoring report verified?	The following documents have been Checked: 1. The monthly statements on net electricity supplied to the grid. 2. Invoices raised by the PP to CEB
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes

Data / Parameter	Diesel burnt in the back-up generator ($FC_{i,j,y}$)
Frequency of measuring/recording	Monthly
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. Fuel consumption records are taken on monthly basis and reported in the relevant data recording sheets for verification purpose.
Monitoring equipment	Ruler gauge is used to measure the fuel consumption of the generator.
Calibration frequency/interval	Annual
Is the calibration interval in line with the monitoring plan of the CMA?	Yes, the calibration frequency indicated in the CMA is “Annual”
Company performing the calibration	Calibrated by an outsourced party
Did calibration confirm proper functioning of monitoring equipment? (Yes/No)	Yes
Does the calibration cover the monitoring period?	Yes. Calibration records are available for the current monitoring period.
How were the values in the monitoring report verified?	The following documents have been Checked: 1. The monthly fuel purchased records 2. Log book maintained at facility for recording fuel issuance for generator

Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes. Data is monthly recorded by the plant operators and authorized by the project manager

3.5.5. Assessment of data and calculation of emission reductions

Availability of the data

The data for all the monitoring parameters have been correctly measured, recorded according to the applied monitoring methodology AMS-I.D, version 18 and the registered CMA. All the data are available for this monitoring period.

Cross-check reported data

Baseline Emissions

The baseline emission for the project activity has been calculated as per the CMA version 02 dated 15/05/2023 and AMS-I.D, version 18. As stated in the section 3.5.3 above, the net electricity generation measured during the monitoring period is 33,334.04 MWh and the measurement is in line with the clause 22 of the methodology. The electricity generation is cross checked from the electricity generation and consumption log book records and there was no any mismatch found to be reported

As per the clause 18 of the applied methodology AMS-I.D version 18 and calculations as indicated under section 3 of the approved CMA the project participant has calculated the electricity generation based on the export bill issued by CEB, the same has been verified by Verification Team and found to be appropriate.

The net electricity generation to calculate baseline emission found to be 33,334.04 MWh. The baseline emission for the project activity covering the monitoring period worked out based on the approach mentioned above is **25,040 tCO_2e**.

Project Emissions

Project emissions has been calculated using the methodological guidance of CDM tool: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion, version 03.0. The total project emission reported for the monitoring period is **4 tCO_2e**.This value has been reached by the project proponent on a conservative approach.

Leakage Emissions

There are no leakages associated with movement of old equipment that need to be assessed as per the methodology AMS-I.D, Version18. Thus, there is no leakage emission form the project activity for this monitoring period.

Emission Reductions

Therefore, the emission reductions in this monitoring period are:

ERy = BEy - PEy - LEy

ERy = 25,040– 4 – 0 = 25,036 tCO_2e

3.5.6. Accuracy of emission reduction calculations

The emission reductions are calculated as the product of the net electricity exported to the grid and the grid emission factor of the national grid of Sri Lanka. The electricity exported from the project activities are read directly from an uploading meter. The meter is owned by the CEB and the maintenance and calibration are done by CEB on an annual basis. The import from the grid is sourced from the invoices provided by the CEB to the project proponent. The calibration certificate covering the entire period has been evidenced.

The data presented in the monitoring report version 01 and 02 were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. It has been verified during the site visit that the monthly electricity generation during the monitoring period has not exceeded the rated capacity for the Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project. The emission reductions from the project for the period from 01/03/2021 to 31/12/2022 as reported in the revised monitoring report of Version 02 dated 1st June 2023 and actually verified at site equals to 25,036 tonnes of CO_2 equivalent. The reported emission reductions are 13.67% higher than the estimated emission reduction of 22,025 tCO_2e for this monitoring period as per the revised CMA, Version 02.

3.5.7. Management system and quality control

Data was collected based on a data management procedure as described in the registered CMA version 02. The monitoring and reporting of electricity data is in accordance with well-established operational procedures. The site visit confirmed that the management system for the SLCCS project is in place and can be traced, such as the organizational structure with responsibilities, monitoring procedure and monitoring management, emergency treatment procedure and competence criteria of personnel involved in the SLCCS project. The organizational structure, responsibilities have been detailed in the MR for the project activity and were found to be adequate as confirmed during the site visit. Thus, the management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan.

3.5.8. Resolution of Findings

Type of the Finding	⊡CL ☒CAR ⊡FAR
Finding No	CAR-1
Ref. To MR	Section 4.1
Description of Finding	Data and parameters available at the validation are not included in the monitoring report for the verification purpose.
Summary of Project owner response	By an oversight, the monitoring parameters available at the validation have not been included in the monitoring report. The SLCCS guideline applicable to the development of CMA was referred and accordingly the parameters in validated CMA were included in the revised version of the monitoring report dated 01/06/2023.
Verification team Assessment	The revised monitoring report was reviewed by the verification team to confirm whether all parameters available at the validation included in the relevant section. It was verified that the required parameters 'combined margin CO_2 emission factor for grid connected power

	generation, weighted average density of generator fuel, weighted average net calorific value of diesel, weighted average CO_2 emission factor of fuel type were duly included in the section 4.1. Based on the response and corrective action, the CAR was closed by the verification team.
Conclusion	⊡To be checked during the first periodic verification ⊡Additional action should be taken (finding remains open) ⊡Project documentation was corrected correspondingly **☒ Appropriate action was taken. The finding CAR-1 is closed**

Type of the Finding	⊡CL ☒CAR ⊡FAR
Finding No	CAR-2
Ref. To MR	Section 4.3
Description of Finding	Description of the monitoring plan given in the monitoring report is same as the content provided in validated CMA. The approach and procedures followed in the monitoring of project activity after its implementation is not transparently described in the monitoring report.
Summary of Project owner response	The monitoring plan included in the validated CMA was put into action after the implementation of the project activity. The authority and responsibility for registration and overall monitoring of the project activity is rested with the Director of the Eagle Power (Pvt.) Ltd. The project manager is tasked with ensuring the proper operation of the power plant and its monitoring activities. During the monitoring period all parameters given in CMA was monitored and reported for verification purpose. The power plant has used standard templates and formats in the recording of data. The recorded data are periodically reviewed and authorized by the Project Manager and director assigned for the project. Further, a robust QA/QC program as described in the validated CMA is implemented during the project monitoring period
Verification team Assessment	In response to the CAR, project proponent has provided a detailed description on the successful implementation of the monitoring plan. The procedures applicable to the monitoring plan was described under in revised monitoring report under several sections titled Parameters Requiring Monitoring, Training of monitoring team, Procedures for documentation and storage, Procedures for Corrective actions, QA & QC Procedures, Data Storage & Archiving and Maintenance of Equipment. Subject to the provision of this description, CAR was closed by the verification team.
Conclusion	⊡To be checked during the first periodic verification ⊡Additional action should be taken (finding remains open) ⊡Project documentation was corrected correspondingly **☒ Appropriate action was taken. The finding CAR-2 is closed**

Type of the Finding	⊡CL ⊠CAR ⊡FAR
Finding No	CAR-3
Ref. To MR	Section 1.9
Description of Finding	Intended project track and credit used was not clearly mentioned in the section 1.9 of the Monitoring Report.
Summary of Project owner response	Due to the less exposure to the rule-based mechanism of SLCCS, a clear description has not been provided on the intended project track and the purpose of credits being used by the project owner. Following the issuance of CAR, a clear description was provided in the section 1.9
Verification team Assessment	During the verification assessment, Verification team reviewed the corrective action taken by the project proponent. It was mentioned that project is aimed to be registered under TRACK II of SLCCS and credits being certified is used for the internal offsetting of the emissions of the associated organizations/ businesses.
Conclusion	⊡To be checked during the first periodic verification ⊡Additional action should be taken (finding remains open) ⊡Project documentation was corrected correspondingly **⊠ Appropriate action was taken. The finding CAR-3 is closed**

4. VERIFICATION OPINION

Sri Lanka Climate Fund (SLCF) has performed the verification of the emission reductions that have been reported for the Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project for the period 01/03/2021 to 31/12/2022.

The project participants of the Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project are responsible for:

- the preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered CMA version 02.
- the development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project

It is the responsibility of Verification Team to express an independent verification opinion about the project's conformity with the requirements of SLCCS modalities and procedures and on the reported greenhouse gas emission reductions from the project. SLCF conducted the verification on the basis of the monitoring methodology AMS-I.D. (version 18), the monitoring plan contained in the registered CMA of Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project and the monitoring report (Version 02) dated 1st June 2023. The verification included i) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and ii) the collection of evidence supporting the reported data.

Based on documented evidence and corroborated by an on-site assessment SLCFVD can confirm that:

- the project has been implemented and operated as per the registered CMA;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable SLCCS requirements;
- the monitoring is in place as per the applied baseline and monitoring methodology;
- the monitoring complies with the monitoring plan in the registered CMA;
- the monitoring plan in the registered CMA is as per the applied baseline and monitoring methodology.

The verification consisted of the following three phases:

i. desk review of the MR and additional background documents;
ii. follow-up interviews with project stakeholders;
iii. resolution of outstanding issues and the issuance of the final validation report and opinion.

In the course of the verification 03 Corrective Action Requests (CARs) were raised and successfully closed and no CLs and FARs were raised.

The review of the CMA and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties and stakeholders have provided SLCF Verification Division with sufficient evidence to verify the fulfillment of the stated criteria.

In detail the conclusions can be summarized as follows:

- The project is in line with all relevant host country criteria (Sri Lanka) and all relevant SLCCS requirements for carbon credits. Further the project activity is in compliance with the requirements set up by the applied approved CDM methodology AMS-I.D ver.18

- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions are most likely to be achieved within the crediting period.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the verification.

SLCF planned and performed the verification by obtaining evidence and other information and explanations that SLCF considers necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions of the "Maduru Oya Left Bank Canal Sluice Small Scale Hydropower Project" for the period 01/03/2021 to 31/12/2022 are fairly stated in the monitoring report (Version 02) dated 01 June 2023.

The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology AMS-I.D. (version 18) and the monitoring plan contained in the registered CMA.

……..

Chamara Ariyathilaka
Internal Technical Reviewer
25 August 2023

……..

Gayan Madusanka
Team Leader-Verification
25 August 2023

5. REFERENCES

Documents provided by the Project Participants that relate directly to the GHG components of the project. These have been used as direct sources of evidence for the periodic verification conclusions, and are usually further checked through interviews with key personnel.

1. Records of Invoices raised form the project participant for the sale of power
2. Records of Monthly generation details in the plant and maintenance records
3. Monthly fuel consumption records of the on-site diesel generator

Background documents related to the design and/or methodologies employed in the design or other reference documents.

1. AMS-I.D – “Grid connected renewable energy generation”, version 18.0
2. Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion, version 03.3

6. APPENDIX

Verification Team

Mr. R A Gayan Madusanka	**Sri Lanka Climate Fund**	**Team Leader** Having bachelor degree in Geography, he has specialization in environment management and organizational level GHG quantification and verification. He has undergone and completed management system ISO 14064:2018 and ISO 9001:2015. For last three years he has worked as a verifier for more than 15 GHG assessments conducted in service based and industrial facilities. In the project: Third National Communication on climate change implemented by Ministry of Mahaweli Development and Environment, he contributed for the preparation of GHG inventory for the forestry and land use sector.
Ms. Wageesha Alankara	**Sri Lanka Climate Fund**	**Team Member** B.Sc. (Hons) degree in Agriculture specializing in Postharvest Horticulture and engaged over 10 verification assessments conducted by SLCF
Mr. Chamara Ariyathilaka	**Sri Lanka Climate Fund**	**Internal Technical Reviewer** Educational Qualification: B.Sc. Engineering (Chemical and process) He has more than 14 years experience in GHG verification in the industrial sector ranging from service facilities to various industrial processing facilities. He has successfully completed management system ISO 14064 and has been working as the team leader for the verification team of Sri Lanka Climate Fund which has been accredited for organizational GHG verification against ISO 14064-3. Being a project specialist for the GEF funded Bio-Energy Technology Project, he has contributed to develop MRV system for commercial biomass energy generation systems. Further he has engaged in development of project design document for the Clean Development Mechanism (CDM)