



VERIFICATION REPORT

Fujian Yong'an Improved Forest Management Project

Document Prepared By CHINA QUALITY CERTIFICATION CENTER

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Summary:

- **A brief description of the verification and the project**

CHINA QUALITY CERTIFICATION CENTER (CQC) has conducted the verification of Fujian Yong'an Improved Forest Management Project which is located in Yong'an City, Fujian Province, P.R.C. and applying the VCS methodology VM0010 version 1.2, on the basis of VCS Standard Version 4.2, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project which has approximately 7,186 ha commercial forest, is located in Yong'an City, Fujian Province, P.R.C. and implemented by Yong'an Forestry Bureau of Fujian province (hereafter "project owner") to protect the once logging forest.

- **The purpose and scope of verification**

The objective and scope of the verification is to have an independent review ex post determination by a VVB (Validation and Verification Body) of the monitored GHG removals by sink that have occurred as a result of the implementation of the project activity during a defined monitoring period.

- **The monitoring period**

This is the second Monitoring period started from 01/07/2016 to 30/06/2021.

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

CQC team has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project design and generation of emission reductions according to the relevant applicable version of the VCS Validation and Verification Manual and applying auditing techniques.

The verification team assessed the proposed project activity's compliance under the VCS standard version 4.2, the selected methodology and the project description. The project activity is found to be appropriately eligible under Project Scope 14 "Agriculture, Forestry, and other Land Use (AFOLU)". The verification criteria followed the guidance documents provided by VCS included the following: VCS Standard version 4.2, VCS Program Guide version 4.1, AFOLU Non-Permanence Risk Tool version 4.0 and the VCS methodology VM0010 version 1.2.

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

In the course of the verification, 5 Clarification Requests (CLs) were raised and successfully closed. The assessment is included in the report.

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

There are no restrictions of uncertainty.

- **Summary of the verification conclusion.**

CQC confirms that the project is implemented as planned and described in the validated VCS project description. The forestry management conversion includes 7,186ha logged to Protected Forest (LtPF) spreading in Yong'an city of Fujian province. which are protected as non-commercial forestry. The monitoring system is in place and reduces the GHG emissions as anthropogenic GHG removals by sinks. The GHG emission removals by sinks verified totalize 287,276 tCO₂e (VCUs eligible for issuance) with the annual emission reduction of 57,455 tCO₂e, with buffer deduction for the second monitoring period.

Our opinion relates to the projects' GHG emissions and resulting GHG emission reductions reported and related to the valid project baseline, monitoring plan and its associated documents.

Reporting period	01/07/2016 to 30/06/2021
Baseline emissions or removals (tCO ₂ e)	62,955
Project emissions or removals (tCO ₂ e)	-287,382
Actual net GHG removals by sinks (tCO ₂ e)	350,337
GHG emissions due to leakage (tCO ₂ e)	0
Total number of credits withheld in VCS buffer account (tCO ₂ e)	63,061
Net anthropogenic GHG removals by sinks (tCO ₂ e)	287,276

contents

1	Introduction	1
1.1	Objective	1
1.2	Scope and Criteria	1
1.3	Level of Assurance	2
1.4	Summary Description of the Project	2
2	Verification Process	3
2.1	Method and Criteria	3
2.2	Document Review	4
2.3	Interviews	4
2.4	Site Inspections	7
2.5	Resolution of Findings	8
2.6	Eligibility for Validation Activities	8
3	Validation Findings	9
3.1	Participation under Other GHG Programs	9
3.2	Methodology Deviations	9
3.3	Project Description Deviations	9
3.4	Grouped Project	9
4	Verification Findings	9
4.1	Project Implementation Status	9
4.2	Safeguards	11
4.3	AFOLU-Specific Safeguards	12
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	13
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	18
4.6	Non-Permanence Risk Analysis	24
5	Verification conclusion	25
	APPENDIX A: <Documents reviewed or referenced>	27
	APPENDIX B: <RESOLUTION OF CORRECTIVE ACTION /CLARIFICATION / FORWARD ACTION REQUESTS >	27

1 INTRODUCTION

1.1 Objective

Beijing Institute of Green Resources (hereafter referred to as “BIGR”) has commissioned CQC to verify the emission removals of the Fujian Yong’an improved Management Project (hereafter referred to as “the Project”) for the period from 01/07/2016 to 30/06/2021. CQC as the validation/verification body (VVB) of the Project has been accredited as a DOE by VERRA and UNFCCC and also meets the competence requirements as set out in ISO 14065:2007.

The objective of verification is to verify the reported voluntary emission removals generated by the Project for the period from 01/07/2016 to 30/06/2021 and to confirm that actual monitoring systems and procedures are in compliance with that described in the monitoring plan and the additional requirements stated by the Verra.

1.2 Scope and Criteria

The verification scope is defined as an independent and objective review of the VCS project description (VCS-PD),^{/1/} VCS monitoring report (VCS-MR) ^{/2,3/}and other relevant documents list below. The information in these documents is reviewed against VCS standard version 4.2 requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting towards the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

The verification criteria refer to the policy, procedure or requirement used as a reference against which evidence is compared. The verification is carried out on the basis of the following requirements, applicable for this project activity:

- VCS Program Guide, version 4.1, dated 20/01/2022^{/10/}
- VCS Standard, version 4.2, dated 20/01/2022 ^{/9/}
- Registration & Issuance Process, version 4.1, dated 20/01/2022 ^{/11/}
- VCS Validation and Verification Manual, version 3.2, dated 19/10/2016^{/15/}
- VM0010, Version 1.2 "Methodology for Improved Forest Management: Conversion from Logged to Protected Forest"^{/8/}
- VCS AFOLU Non-Permanence Risk Tool version 4.0, dated 19/09/2019^{/13/}
- Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities

(PoAs)^{/44/};

- Guidelines for carbon sink measurement and monitoring of afforestation projects issued by National Forestry and Grassland Administration dated Feb.2011^{/45/}
- Other rules and requirements related to AFOLU projects

1.3 Level of Assurance

CQC has undertaken a reasonable assurance engagement in accordance with VCS standard version 4.2. It requires a reasonable level of assurance in verification that GHG assertions are free of material errors, omissions and misrepresentations. The verification conclusion is based on the VCS-PD^{/1/}, VCS-MR^{/2//3/}, supporting evidences made available to the verifier and information collected through performing interviews and on-site inspection.

1.4 Summary Description of the Project

The Project is located in Yong'an City, Fujian Province, P.R.C. The geo-coordinate range of Yong'an city is 116°56' ~117°47' E and 25°33' ~26°12' N, the total area is 292,995 ha, of which 251,800 ha is the forestry area, accounting 85.94% of the total area. The forest land area is 230,600 ha, and the forest coverage rate is 78.58%.

The Project involves 7186 ha logged to Protected Forest (LtPF) project which belongs to the improvement forestry management (IMF). It applies methodology VM0010 Version1.2 "Methodology for Improved Forest Management: Conversion of Logged to Protected Forest". The protected species are Chinese Fir, Masson pine and Broad-leaf trees.

The Project Start Date is 01/07/2011, which is clearly stated in the Cooperation Agreement for the Greenhouse Voluntary Emission Reduction Project signed between local forestry bureau and forest right owners on 16/12/2010.

The project generated 263,328 tCO₂e emission reductions within the first monitoring period from 01/07/2011 to 30/06/2016 with the average annual emission reductions of 52,666 t CO₂e. The first 5 years'VCU was proved in 12/2016. During the second monitoring period from 01/07/2016 to 30/06/2021, the project has generated 287,276 tCO₂e (VCUs eligible for issuance) with the annual emission reduction of 57,455 tCO₂e with buffer deduction.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using CQC's internal procedures.

The non-permanence risk analysis was also assessed for this verification. Further, following Section 2.1.2 of the VCS Validation & Verification Manual, V3.2, the objectives of the verification exercise were to evaluate the monitoring report and assess:

- The extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated project description. This includes ensuring conformance with the monitoring plan.
- The extent to which GHG Emission Reductions or Removals reported in the monitoring report are materially accurate.

The criteria followed the verification guidance documents provided by Verra. Unless otherwise indicated, the assessment was performed against the most recent version of the relevant Verra guidance document. Please also see Section 1.2 of this report.

The specific approach taken to conduct this verification included:

- Review of project documentation including the approved selected methodology (VM0010, Version 1.2), the project proponent's validated Project Documentation and Monitoring Plan dated 08/08/2014 and the previous verified Project Documentation (such as verification report and monitoring report for 1st monitoring period)
- On-site inspections, including; conduct risk assessment, review of performance records, interviews with project participants and local stakeholders, simple random sampling, collection of field measurements, observation of established practices and testing of the accuracy of monitoring equipment
- Review of monitoring results and verification of the correct application of monitoring methodologies
- Review of calculations to quantify reductions in GHG emissions
- Review of the management systems to support the project operation and monitoring

With regard to the sampling plan, choice of testing method will depend on the data in question and the nature and extent of risks identified. CQC verification team apply our sectoral professional judgment to develop the sampling plan. A sampling plan including data testing methods and types

of data and information to be assessed, such as simple random sampling, locations of the project, size and number of sample plot, diameter at breast height(DBH) etc., and a verification plan were completed in accordance with the verification criteria (see section 1.2 of this report)prior to the verification after the review of the documentation. Potential risks were assessed and identified, and necessary actions were identified. CQC verification team then assessed the documentation and information provided by PP.

2.2 Document Review

The assessment of the project documentation provided by the project participant is based upon both quantitative and qualitative information on emission reductions. Quantitative information comprises the reported numbers in the VCS monitoring report (MR) version 01 dated 25/10/2021^{/2/} and MR-ER spread sheet version 01 dated 25/10/2021^{/4/}. Qualitative information comprises information on internal management controls, calculation procedures, procedures for transfer of data.

In addition to the monitoring documentation provided by the project proponents, the CQC reviews:

- (a) The VCS-PD and the monitoring plan^{/1/};
- (b) The validation report^{/6/};
- (c) The applied monitoring methodology;
- (d) The non-permanence risk report^{/22/};
- (e) The monitoring report and verification report for 1st monitoring period;
- (f) Other information and references relevant to the project activity's resulting emission reductions (e.g. IPCC reports, 3rd party measurement reports or national regulations, evidence/statements from local authority).

2.3 Interviews

On 11/01/2022 and 12/01/2022 , CQC performed a site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Local villagers, local officials and Representatives of Beijing Institute of Green Resources were interviewed (see References). The main topics of the interviews are summarized as follows:

Date	Interviewee	Organization	Interview Topics
11/01/2022	Mei Jinggui Local forest director Zheng Guangming Local forest senior Engineer Huang Bin Vice General Manger Zhang Zhonghuan Production Manger Chen Binfeng General Manger	Yong'an Forestry Bureau of Fujian province (PP) Fujian Yong'an Forestry (Group) Co., Ltd. (hereafter refers to as Yonglin) Fujian Yonghui Forestry Co., Ltd. (hereafter refers to as Yonghui), Yong'an Senfa Technology and Trade Co., (hereafter refers to as Senfa)	- Chronological description of the project activity with documents of key steps of the implementation. -Technical details of the project realization, project feasibility, designing, operational life time -Baseline and Additionality -Project Boundary -Eligibility criteria - Monitoring plan and arrangements -Crediting period -Project activity starting date -Ownership -local stakeholder consultation
11/01/2022	Mei Jinggui Local forest director Zheng Guangming Local forest senior Engineer	Yong'an Forestry Bureau of Fujian province (PP)	-National legislation to forest - Provincial legislation to afforestation -Local forestry development - Roles & responsibilities of the government -local communities situation -local biodiversity situation -local climate -local environment
12/01/2022	Dong Chenling Yang Guosong	Local villagers	-job opportunities -living condition

	Luo Fanqin		-training -local stakeholder consultation -impact to local residents -impact to local environment -impact to local biodiversity
12/01/2022	Li Jinliang General manager Luo Tianze Project manager Sheng Chunguang Project manager Zhao Xiaoqing Project manager	Beijing Institute of Green Resources (the Consultant)	--Deviations -Crediting period -Project activity starting date -Baseline study assumptions - Project risk - project management and monitoring - Sampling plan and implementation -ER calculation - Editorial issues of the VCS&CCB

2.4 Site Inspections

The verification site inspection was based on the verification and sampling plan established. It was conducted on 11/01/2022 and 12/01/2022 by CQC verification team, accompanied by the project proponent of the project activity. During this site inspection, CQC interviews with the representatives of the project owner and related local stakeholders. The verification site visit was a required tool to help the VVB reach reasonable assurance for verification of monitoring period reported elements. It also allowed the VVB to; understand application of the methodology on-site, confirm the implementation of project activities, and to resolve issues identified in the document review.

The objectives of the on-site inspections performed were to:

- Conduct a risk-based review of the project area and project activities to check that the project adhered to the requirements of the VCS rules and the methodology during the monitoring period
- Select data samples from ground measurements for verification purposes in order to achieve a reasonable level of assurance and meet the materiality requirements of the project following Section 4.1.2 of the VCS Standard
- Check that monitoring was conducted in accordance with the requirements of the validated monitoring plan, the VM0010 methodology and VCS rules

The site visit lasted two days and 6 localized sampling plots of the project were confirmed by means of simple random sampling, which is account to 14% of total sampling plots of the project. The method to conduct sampling and the final sampling proportion is accordance with Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (PoAs) and Guidelines for carbon sink measurement and monitoring of afforestation projects issued by National Forestry and Grassland Administration dated Feb.2011.

The locations of the project visited during the site inspection are confirmed correct by means of GPS navigator and crossed check with the sample plot monitoring records^{/38/}. The information of sample plots evaluated during the site visit are recorded below :

Serial No.	No.of sample plot	The central geological coordinates
1	P-01-LYJ-03	N 26.081706 E 117.430147
2	P-01-LYJ-07	N 26.1094992 E 117.456464
3	P-03-YL-17	N 25.859926 E 117.325554
4	P-03-YL-21	N 25.860883 E 117.324985
5	P-03-YL-25	N 25.946883 E 117.424367
6	P-03-YL-27	N 25.883049 E 117.326074

2.5 Resolution of Findings

The objective of this phase of the verification is to resolve issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the project activity to achieve emission removals or influence the monitoring and reporting of emission removals prior to CQC's positive conclusion on the GHG emission removals calculation.

Findings established during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

- (a) Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- (b) Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- (c) Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- (d) Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

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

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in Appendix A.

5 CLs had been raised during the verification, presented in Appendix A. Taking into account this output, the Project participant took corrections and revised its Monitoring Report (MR). All CLs are successfully closed.

Forward Action Requests (FAR)

No Forward Action Request is raised during the validation and 1st and 2nd monitoring period.

2.6 Eligibility for Validation Activities

N/A, CQC as the validation/verification body (VVB) of the Project has been accredited as a DOE by UNFCCC and also meets the competence requirements as set out in ISO 14065:2007.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

N/A, the project has not been registered, or is seeking registration under any other GHG programs
Hence, CQC verification team confirms that the project is eligible to participate under the VCS Program.

3.2 Methodology Deviations

N/A, There are no methodology deviations applicable to the project activity during this monitoring period.

3.3 Project Description Deviations

N/A, no deviation from project description in the VCS PD version 02 dated 05/06/2016.

3.4 Grouped Project

This project is not relevant to the grouped project; there is no new instance of the project activity.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

CQC has performed a site visit and found that the project has been implemented since 01/07/2011 which is clearly stated in the Cooperation Agreement for the Greenhouse Voluntary Emission Reduction Project signed between local forestry bureau and forest right owners on 16/12/2010. On the basis of this site visit and the reviewed project description it can be confirmed that, the improved forestry management, such as conversion of logged to protection forest (Protected species are: Chinese Fir, Masson pine and Broad-leaf trees) are implemented.

The forestry management conversion includes 7186ha logged to Protected Forest (LtPF). The different forest types, as well as the monitoring system, metering equipment and the monitoring procedure have been implemented and managed as described in the VCS PD.

The Project is implemented in the key location commercial forest of Yong'an city, which distributes in the 11 towns and 3 subdistrict offices. And the forest right belongs to Fujian Yong'an Forestry (Group) Co., Ltd. (hereafter refers to as Yonglin), Fujian Yonghui Forestry Co., Ltd. (hereafter refers to as Yonghui), Yong'an Senfa Technology

and Trade Co., Ltd. Of its 7186ha forest land, their location and central geological coordinates are determined in the forest inventory table as listed in the validated PD appendix.

CQC verification team checked the second class investigation data conducted by Yong'an Forestry Bureau of Fujian province on 06/2011, as well as KML file, then confirmed that the information listed in the validated PD and the ER calculation of the Project are consistent with the forest second class investigation and KML file.

Additionally, CQC also reviewed the statement with regard to the project boundary dated 30/06/2021 ^{/46/} issued by the local forestry authority who is responsible for the administration of forestry affairs within their jurisdiction and confirms that there is no change in the project boundary during the second monitoring period.

The project generated 263,328t CO₂e emission reductions within the first monitoring period from 01/07/2011 to 30/06/2016 with the average annual emission reductions of 52,666 CO₂e. The first 5 years' VCU was approved in 12/2016. With buffering deducting, during the second monitoring period from 01/07/2016 to 30/06/2021, the project has generated 287,276 tCO₂e (VCUs eligible for issuance) with the annual emission reduction of 57,455 tCO₂e.

On the basis of site visit and the reviewed project description, CQC confirms no changes to the project design have been identified during this verification. The implementation and operation of the project activity have been conducted in accordance with the description contained in the VCS PD.

On the basis of on site inspection and Monitoring Manual^{/39/} and Monitoring Records^{/38/} provided by project owner, CQC confirms that there is no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.

The implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system was confirmed through review of VM0010 adopted procedures and comparison of monitoring results against the validated project design.

The project has not been registered and is not seeking registration under any other GHG program. It has not been rejected by any other GHG program, which is confirmed through the overall verification process including background investigation, interviews and documentary review.

The project has not received or sought any other form of environmental credit and it has not become eligible to do so since the validation or previous verification. The GHG emission reductions generated by the project have not become included in an emissions trading program other than the VCS program and it has not received or sought any other form of environmental credit as confirmed through a risk-based review by CQC verification team.

Sustainable development contributions are applicable to this project through the site visit interviews, and document review as part of the verification. The goals of the project activities,

protect and restore 7186ha of ecosystems, therefore to enrich the biodiversity;to offer local people some employment opportunities for forest management, therefore keep sustainable sources of income; and to tackle global climate change, are clearly and directly related to increasing the well-being of the local communities.

Based on the above findings, CQC verification can conclude that the project has been implemented as described in the validated project description during the second monitoring period.

However, the evidence of the project start date is not provided to VVB during the onsite visit, and not clearly stated in the MR(version 01). Additionally,the project location and boundary are not clearly stated in section 1.7 of the MR(version 01). Therefore, **CL01** and **CL02** was raised and successfully closed.(see Appendix B)

4.2 Safeguards

4.2.1 No Net Harm

During the visit, CQC team has interviewed the PP, the consultant and confirms the project has strictly banned the annual commercial timber harvest and only allowed tending and managing, therefore since 2011,the project activity is compliance with National and Local Laws and Regulations and no negative environmental and socioeconomic impacts identified.

4.2.2 Local Stakeholder Consultation

Based on the survey (01/2015 and 06/2021 respectively) combing the questionnaire and Participatory Rural Appraisal (PRA) (12/2016, 06/2018 and 05/2021 respectively), the monitoring results showed that: the local stakeholders thought the project activities have various benefits such as ecological and economic benefits. The ecological benefit is that increasing forest coverage will benefit the local ecological environment, generate more oxygen and absorb more carbon dioxide, and contribute to the mitigation of climate change. The economic benefits are reflected in the fact that the project activities can well promote the development needs of local stakeholders, and the protected forest area will create certain employment opportunities for forest management, such as hiring some residents as forest rangers which is confirmed by onite interview with forest rangers and reviewing the Periodical payroll of local residents^{/49/} .

During on-site visit,CQC verification team found that all stakeholders live out of the project site, the staff from Fujian Yong'an Forestry (Group) Co., Ltd. (hereafter refers to as Yonglin), Fujian Yonghui Forestry Co., Ltd. (hereafter refers to as Yonghui), Yong'anSenfa Technology and Trade Co., Ltd. . and local forest director and senior engineer of PP were interviewed. Furthermore, through reviewing the questionnaires^{/37/} dated 06/2021 during the second monitoring ,and Participatory Rural Appraisal (PRA) dated 05/2021 and internal meeting minutes^{/36/} of project proponent from 01/07/2016 to 30/06/2021, CQC confirms that the project proponent continues to communicate with the local stakeholders with regard to the necessary

relevant information about the project implementation, risks, costs and benefits, relevant laws and regulations and the process of VCS Program verification during the monitoring period, and there is no any resultant changes to the project design.

However, the results of project implementation, including the results of monitoring and the benefits the project may bring to local stakeholders are not described in section 2.2 of the MR(version 01). therefore **CL 03** was raised and successfully closed.(see Appendix B)

4.3 AFOLU-Specific Safeguards

As a result of the project implementation, the once commercial harvest is canceled and only tending and managing is permitted. In order to mitigate the risks for fire and other natural disturbance, the project owner hired more forest rangers and equipped with more sensors to invest more on disturbance prevention.

Via on-site inspection and document review(such as questionnaires and the interview notes recorded by PP etc.), CQC visited the project area and communities in Yong'an city ,and interviewed with the stakeholders representatives from local forestry administrations, residents, and the project proponent involved in the project implementation, and confirms that the survey combining the questionnaire with Participatory Rural Appraisal (PRA) were conducted prior to and during this monitoring period, and PP also notified local stakeholders of project progress through assembly and email or telephone on a regular basis.

Through onsite visit and interview the local stakeholders, CQC verification team also confirms that PP notified local stakeholders of project progress through assembly and email or telephone on a regular basis. The local stakeholders were invited to communicate with the project proponent if they had questions or if a problem or a potential conflict could take place, which is consistent with the information provided by project proponent .

Since no potential problems or conflicts were raised since the start of the project, no activities had been implemented by the project proponent to mitigate risks to local stakeholders. Additionally, CQC also checked the related documents of the project, such as Technical Training Record^{/48/} and Periodical payroll of local residents^{/49/} who are involved in the project, and confirms that the local stakeholders benefit from the project due to the ability enhancement, employment opportunities and the increased incomes.

Furthermore, a forest conservation project does not cause a problem to the local stakeholders. No problems or potential conflicts were raised at the time of the validation activities and the 1st and 2nd monitoring period of this project. Proof of communication between the project proponent and the stakeholders was provided during the verification activities.

Therefore, CQC verification team confirms there is no risk and negative impact on local stakeholders during the implementation of the project .

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Monitoring has been carried out in accordance with the monitoring plan contained in the VCS PD.

The parameters required by the monitoring plan and how CQC has verified the information flow (from data generation, aggregation, to recording, calculation and reporting) and appropriateness of the applied measurement / determination method, the correctness of the values applied for emission removals calculation, the accuracy, and applied QA/QC measures for all relevant monitoring parameters including the values in the monitoring report are described below:

- Illegal Logging PRA Results;

According to the frequency of the biennial PRA illegal logging survey, PP originally planned to carry out the third event in the second quarter of 2020. However, due to the Cov-19 outbreak in China in early 2020 and its continuing outbreak, PRA event was affected by strict restrictions on travel and gathering, which caused the delay of the third event. Therefore, PP did not conduct the third PRA event until May 2021, when the outbreak had moderated appropriately.

Based on the results of the first two PRA events dated 12/2016 and 06/2018 respectively, "no illegal logging occurred in the project area", and strict forest laws and good forest management and protection system is indeed on track since the start of the project, which is confirmed by CQC team during the onsite assessment and interviewed with the stakeholders such as local forestry bureau, residents and PP, and hence CQC team concluded that it is sufficient to carry out three PRA surveys on illegal logging during the past 5-year monitoring period.

The value is zero since clear infrastructure, hiring and policies are in place to prevent illegal logging. CQC has checked the documents (participatory rural appraisal (PRA) ^{/23/} provided by the local Forestry Bureau and confirmed no illegal logging happened during the period from 01/07/2016 to 30/06/2021. Hence, the value is zero in this monitoring period.

- Result of Limited Illegal Logging Survey;

CQC has checked the documents (participatory rural appraisal (PRA) provided by the local Forestry Bureau and confirmed no illegal logging happened during the period from 01/07/2016-31/03/2021. Hence, The value is zero since clear infrastructure, hiring and policies are in place to prevent illegal logging.

- $A_{burn,i,t}$ Area burnt in stratum i at time t

N/A. During the on site visit, CQC verification team reviewed the statement issued by the local forestry authority on June 30, 2021, not any forest fire occurred from 07/ 2016 to 06/2021.

$A_{dist,i,t}$, Area disturbed in stratum i at time t

N/A, During the on site visit, CQC verification team reviewed Statement on fire and natural disturbance issued by the local forestry authority dated 30/06/2021.^{/27/}, and confirms that there is no fire and natural disturbance occurred from 01/07/2016 to 30/06/2021. Hence, the value of $A_{dist,i,t}=0$.

- $A_{DIST_IL,i}$: Area potentially impacted by illegal logging in stratum i

N/A,As stated above, there is no illegal logging during this monitoring period, Hence, the value of $A_{DIST_IL,i}=0$.

- $C_{DIST_IL,i,t|PRJ}$: biomass carbon of trees cut and removed through illegal logging in stratum i at time t

N/A, As stated above, there is no illegal logging during this monitoring period

- A_{Pi} : Total area of illegal logging sample plots in stratum i

N/A, no illegal logging during this monitoring period.

- PMP_i : Merchantable biomass as a proportion of total above ground tree biomass for stratum i within the project boundaries

N/A. As the leakage factor of this project is zero which is confirmed at the validation period and this verification period. CQC verification team confirms that it is unnecessary to calculate PMP_i .

- A_i : Area covered by stratum i

During the on site visit, CQC verification team confirms that the value is from the national second class forest investigation^{/41/}, which is design and implemented by the designated qualified entities on 06/2011,(the area of each stratum is unaltered) and will updated every 10 years .In the baseline scenario ,strata areas must not change through time.In the project scenario it must be assumed ex-ante that stand boundaries and strata areas must not change through time. Ex post adjustments of the project scenario strata may be needed if unexpected disturbances occur during the project crediting period.

As state above, CQC verified that there is no illegal logging,and no fire and natural disturbance during this monitoring period via interviewing the local forestry authority, Hence, CQC verification team confirms the area of each stratum is unaltered.

- DBH: Diameter at breast height of tree

During the on site visit, 6 localized sampling plots of the project were confirmed by CQC team through simple random sampling, which is account to 14% of total sampling plots of the project. CQC team measure all DBH value of 6 localized sampling plots of the project and compared them with the original monitoring record & ER calculation sheet, and hence confirms the DBH values are correct.

Parameters determined ex-ante:

The data and parameters available in the validation are listed below:

- $V_{l,j,i,sp}$, Merchantable volume for tree l of species j in sample plot spin stratum i
- CF_j , Carbon fraction of dry matter for species j
- D_j , Basic wood density of species j in t d.m. m^{-3}
- $f_j(X,Y,...)$, Allometric equation(s) for species j linking measured tree variable(s) to above ground biomass of living trees
- Total area of illegal logging sample plots in stratum i (A_{Pi})
- $BCEF_R$, Biomass conversion and expansion factor applicable to wood removals in the project area
- G_{gi} , Emission factor for stratum i for gas g
- RGR_i , Forest re-growth rate post timber harvest for stratum i
- $V_{EX,j,i|BSL}$, Mean volume of extracted timber per unit area for species j in stratum i
- $A_{i,p}$, Area covered by stratum i over land parcel p

A complete set of data for the specified monitoring period is available.

However, CQC raised **CL 04** as the description of measurement methods and procedures to be applied for the $C_{DIST_IL,i,i|PRJ}$ such as allometric regression equations for the above ground carbon stock of each harvested tree is not clearly stated in section 4.2 of the MR(version 01) and finally **CL 04** was successfully closed.(see Appendix B)

Calculation process and results

(1) Baseline Emissions

The critical parameter used for the determination of the Emission Removals is the area of forest, number of plant, diameter at breast height of a tree and other parameters relate to the forest inventory. The data pertaining to the above parameters are maintained in the identified records. All the data are in compliance with that stated in the Monitoring Report version 2.0.

According to the methodology and the VCS PD, the net change in carbon stock from wood products and logging slash across all parcels within the first year of harvest in the baseline is calculated as

$$\Delta C_{NET,BSL(1)} = \sum_{i=1}^M \sum_{p=1}^P A_{1,i,p} * \left(\frac{\Delta C_{DWSLASH,i,p,BSL}}{10} \right) + \Delta C_{WP0,i,p,BSL} + (\Delta C_{WP100,i,p,BSL}/20) \quad (1)$$

The net change in carbon stock from wood products and logging slash across all parcels in the years 2-10 since harvest in the baseline are calculated as:

$$\Delta C_{NET,BSL(2-10)} = \sum_{i=1}^M \sum_{p=1}^P A_{2-10,i,p} * \left(\frac{\Delta C_{DWSLASH,i,p,BSL}}{10} \right) + (\Delta C_{WP100,i,p,BSL}/20) \quad (2)$$

The net change in carbon stock from wood products across all parcels in the years 11-20 since harvest in the baseline are calculated as:

$$\Delta C_{NET,BSL(11-20)} = \sum_{i=1}^M \sum_{p=1}^P A_{11-20,i,p} * (\Delta C_{WP100,i,p,BSL}/20) \quad (3)$$

The net change (sequestration) in carbon stock due to forest regrowth across all parcels in all years since harvest in the baseline scenario are calculated as:

$$\Delta C_{NET,BSL(1+)} = \sum_{i=1}^M \sum_{p=1}^P A_{i,p,t^*} * (-\Delta C_{RG,i,p,BSL}) \quad (4)$$

Therefore, the net change in carbon stock across all parcels harvested over each year of the project crediting period in the baseline scenario since the start of the project activity is calculated as:

$$\Delta C_{NET,BSL,t^*} = \Delta C_{NET,BSL(1)} + \Delta C_{NET,BSL(2-10)} + \Delta C_{NET,BSL(11-20)} + \Delta C_{NET,BSL(1+)} \quad (5)$$

The net carbon stock change in the baseline scenario must be converted to net greenhouse gas emissions and is calculated as:

$$GHG_{NET,BSL,t^*} = \Delta C_{NET,BSL,t^*} * \frac{44}{12} \quad (6)$$

CQC has checked the Emission Removals calculation sheet and registered VCS-PD and found the baseline calculation is correct. The value of baseline calculation is listed below:

Year	$\Delta C_{NET,BSL(1+)}(tC)$	$\Delta C_{NET,BSL,t}(tC)$	Conversion factor	$GHG_{NET,BSL,t} (tCO_2e)$
1	460.32	2680.68	3.67	9829.17
2	920.63	2788.29	3.67	10223.72
3	1380.95	2895.89	3.67	10618.28
4	1841.27	3003.50	3.67	11012.83
5	2301.58	3111.10	3.67	11407.38
6	2761.90	3218.71	3.67	11801.94
7	3222.22	3326.31	3.67	12196.49
8	3682.53	3433.92	3.67	12591.04
9	4142.85	3541.53	3.67	12985.59
10	4603.17	3649.13	3.67	13380.15

Year 1-10	01/07/2011 to 30/06/2021	$GHG_{NET,BSL,t2^*} (tCO_2)$	116047
Year 1-5	01/07/2011 to 30/06/2016	$GHG_{NET,BSL,t1^*} (tCO_2)$	53091

Note: Here t2* is 10 years for the time elapsed since the start of the project to 30/06/2021

Here t1* is 5 years for the time elapsed since the start of the project to 30/06/2016

Therefore, CQC verification team confirms that the baseline emission in this monitoring period is 62955 tCO₂.

(2) Project Emissions

According to the methodology and the VCS PD, net greenhouse gas emissions in the project scenario in year t, equal to emissions resulting from forest disturbance (both illegal logging and natural disturbances) minus carbon sequestration through ongoing forest growth.

$$\Delta C_{AB,t,PRJ} = \left(\sum_{i=1}^M \left(A_i * \frac{C_{AB,i,t2,PRJ} - C_{AB,i,t1,PRJ}}{T} \right) \right) * \frac{44}{12} \quad (7)$$

For the calculation result of annual carbon stock change in aboveground biomass of trees, since the total carbon stock change is calculated based on the monitoring data of five years (2016-2021), and the annual carbon stock change cannot be separately monitored, the average growth method is adapted to calculate the annual carbon stock change. CQC checked the “forest resource operation and management” published by Chinese Forest Press in 2001, and confirmed that the average growth method is acceptable and reasonable based on the expertise and experience.

Based on the IPCC 2006 Inventory Guidelines, estimation of greenhouse gas emissions from biomass burning must be calculated as:

$$\Delta C_{DIST-FR,t,PRJ} = \sum_{i=1}^M A_{burn,i,t} * B_{i,t,PRJ} * COMF_i * G_{g,i} * 10^{-3} * GWP_{CH_4} \quad (8)$$

During the on site visit, CQC checked the statement issued by the local forestry administration regarding the fire accident dated 02/04/2021 thus CQC verification team confirms that there is no fire occurred during the second monitoring period. Hence, the value of $A_{burn,i,t}=0$, and $\Delta C_{DIST-FR,t,PRJ}$ is equal to 0.

It is conservatively assumed that the natural disturbance is a stand-replacing disturbance, and that the biomass change as a result of the natural disturbance ($\Delta C_{DIST,t,PRJ}$) is emitted in the year of disturbance.

$$\Delta C_{DIST,t,PRJ} = \sum_{i=1}^M (A_{dist,i,t} * \sum_{j=1}^J \{C_{AB,j,i,BSL}\}) * \frac{44}{12} \quad (9)$$

As indicates by the relevant statement issued by the local authority dated 02/04/2021, no natural disasters occurred during the monitoring period, $\Delta C_{DIST,t,PRJ}$ is equal to zero.

CQC has checked the Emission Removals calculation sheet and found the net greenhouse gas emissions in the project scenario is correct. The value of project emission is listed below:

Year	Monitoring period	$\Delta C_{DIST-FR,t,PRJ}$ (tCO ₂ e)	$\Delta C_{DIST,t,PRJ}$ (tCO ₂ e)	$\Delta C_{DIST-IL,I,t,PRJ}$ (tCO ₂ e)	$\Delta C_{AB,t,PRJ}$ (tCO ₂ e)	$\Delta C_{NET,t,PRJ}$ (tCO ₂ e)
1-10	01/07/2011 to 30/06/2021	0	0	0	585,394	-585,394
1-5	01/07/2011 to 30/06/2016	0	0	0	298,012	-298,012

$$GHG_{NET,PRJ,2021} = \Delta C_{NET,PRJ,2021} = -585,394(tCO_2e)$$

$$GHG_{NET,PRJ,2016} = \Delta C_{NET,PRJ,2016} = -298,012(tCO_2e)$$

Therefore, CQC verification team confirms that the project emission in this monitoring period is -287,382 tCO₂.

(3) Leakage

● Activity shifting leakage

According to VM0010 Version 1.2, there may be no leakage due to activity shifting. This was demonstrated through:

The verification team reviewed the implementation table of timber harvest stock volume in Yong'an City issued by the local forestry authority and interviewed forest owners of this project and local forest bureau, confirmed that the timber harvest limit is planned in advance by the forestry authority, the forest owner of the forest owners have no right to harvest more in other parcels outside the project area. Additionally, from 2011 to 2015, the average annual timber harvesting in Yong'an City was 322,527 m³, and from 2016 to 2020, the average annual timber harvesting in Yong'an City was 196,074 m³, which was a 39.21% decrease. Therefore, the total timber harvest has been decreasing sharply since the implementation of the project activity, considering that other lands owned by the project proponent are all located in Yong'an City, there is barely other forest resources for the project proponent to log. Therefore, CQC team confirms the activity shifting leakage is zero.

However, CL05 was raised as the activity shifting leakage is not clearly stated in section 5.3 of monitoring, report(version 1.0), and this CL 05 is successfully closed. See appendix B.

● Market leakage

According to the Validation Report version 1.0 (/6/), the leakage factor for market-effects calculations (LF_{ME}) is 0.

CQC has verified the following documents:

- According to the National Forestry Law of P.R. China^{/26/}, the forest concessions must be strictly implemented;

- According to the Forestry Law of P.R. China, Illegal logging in China will be faced punished by replanting, penalty, or criminal responsibilities.
- In recent years, the illegal logging is absent in China.
- According to the 12th Five-year plan issued by State Forest Bureau (Guofa [2011] No.3)^{30/}, the annual extracted volume from 2011 to 2015 is 27,105.4*10⁴ m³.
- According to the 13th Five-year plan issued by State Forest Bureau (Guohan [2016] No.32)^{31/}, the annual extracted volume from 2016 to 2020 is 25,403.6*10⁴ m³.
- According to the annual forest cutting quotas of the 13th Five-year plan period and the 14th Five-year plan period issued by Fujian Provincial People's Government and Fujian Forestry Bureau, the annual extracted stock volume for 2016-2020 and 2021-2025 is 2173.3*10⁴ m³ and 2216.4*10⁴ m³, respectively. Furthermore, the annual extracted stock volume in the baseline scenario in of the project is 4.96 *10⁴ m³, accounting only 0.2% and 0.2% of the provincial extracted volume, respectively, which will not result in the significant provincial and national concession and illegal logging.

Based above findings, CQC can confirm that the logging is impossible increased as a result of the decreased supply of the timber caused by the project in this monitoring period.

Therefore, $LF_{ME} = 0$.

According to VM0010 Version 1.2, the Net Project Greenhouse Gas Emission removals in the monitoring period are calculated as:

$$GHG_{CREDITS,LTPF,t^*} = GHG_{NET,BSL,t^*} - GHG_{NET,PRJ,t^*} - GHG_{LK,,LTPF,t^*} \quad (10)$$

Where:

$GHG_{CREDITS|LTPF}$ project greenhouse gas credits associated with the implementation of improved forest management (IFM) activities in the project scenario, tCO₂e

$GHG_{NET|BSL}$ net greenhouse gas emissions in the baseline scenario in the year t* since the start of the project activity, tCO₂e

$GHG_{NET|PRJ}$ net greenhouse gas emissions in the project scenario in the year t* since the start of the project activity, tCO₂e

$GHG_{LK|LTPF}$ total greenhouse gas emissions due to leakage arising outside the project boundary as a result of the implementation of improved forest management (IFM) activities in the year t* since the start of the project activity, in the project scenario, tCO₂e

According to the methodology and VCS PD, if the uncertainty propagation $U_{total|LtPF} \leq 0.15$ then no deduction will result for uncertainty; If $U_{total|LtPF} > 0.15$ then the amount of greenhouse gas emission credits associated with IFM activities will be deducted as follows:

$$Credits_{total|LtPF} = GHG_{credits|LtPF} \times (1 - U_{total|LtPF}) \quad (11)$$

CQC Verification team has checked the uncertainty analysis spreadsheet and confirms that the baseline emission uncertainty has been correctly calculated in the PD of the project as 6.42%, the project emission uncertainty is calculated and listed below:

Stratum	Parameter	Area (ha)	$V_{j,i,BSL,2014}$ (m ³ /ha)	BEF	D (tdm/m ³)	BCEF (tdm/m ³)	CF (tC/tdm)	$V_{j,i,BSL,2019}$ (m ³ /ha)	$\Delta V_{AB,t,PRJ}$ (m ³ /ha)	$\Delta C_{AB,t,PRJ}$ (tCO ₂ e)
		a	b	c	d	e=c*d	f	g	h=g-b	i=h*a*e*f*44/12
Chinese fir	E	1986.0	130.3	1634	0.307	0.502	0.5	181.837	51.575	94,267.633
	U	0.00%	27.64%	2.52%	0.65%	2.61%		24.26%	18.24%	18.43%
Masson Pine	E	3202.4	143.1	1.218	0.380	0.463	0.5	165.888	22.768	38,574.418
	U		21.63%	3.55%	1.59%	3.89%		26.46%	17.38%	17.81%
Broad-leaf tree	E	3201.4	151.8	1.514	0.598	0.905	0.5	185.999	34.186	181,641.177
	U	0.00%	11.28%	3.00%	0.33%	3.02%		13.05%	9.02%	9.51%
U_{PRJ}										8.09%

CQC confirms that the value and data source and calculation of project emission uncertainty is correct. Therefore, $U_{total,LtPF}$ (10.33%) ≤ 0.15 in this monitoring period, then no deduction will result for uncertainty; therefore,

$$\text{Credits}_{\text{total}|L_t\text{PF}} = \text{GHG}_{\text{credits}|L_t\text{PF}} \quad (12)$$

As per the methodology VM0010 Version 1.2 and the VCS PD, the amount of VCU's that can be issued at time $t=t_2$ (the date of verification) for monitoring period $T=t_2-t_1$, is calculated as:

Year	Monitoring period	$\text{GHG}_{\text{NET,BSL},t}$ (tCO ₂ e)	$\text{GHG}_{\text{NET,PRJ},t}$ (tCO ₂ e)	$\text{GHG}_{\text{LK,LtPF},t}$ (tCO ₂ e)	$\text{GHG}_{\text{CREDITS,LtPF},t}$ (tCO ₂ e)	$U_{\text{total,LtPF}}$	$\text{Credits}_{\text{total,LtPF},t}$ (tCO ₂ e)
1-10	01/07/2011 to 30/06/2021	116,047	-585,394	0	701,441	10.33%	701,441
1-5	01/07/2011 to 30/06/2016	53,091	-298,012	0	351,104	12.669%	351,104

Note: $U_{\text{total,LtPF},t_1}$ is 12.669%, which is sourced from the approved MR for the first monitoring period.

$$\text{Credits}_{\text{total,LtPF},t_2-t_1} = \text{Credits}_{\text{total,LtPF},t_2} - \text{Credits}_{\text{total,LtPF},t_1} = 701,441 - 351,104 = 350,337 \text{ (tCO}_2\text{)}$$

$$\text{VCU}_{\text{net}|L_t\text{PF}} = (\text{Credits}_{\text{total},t_2|L_t\text{PF}} - \text{Credits}_{\text{total},t_1|L_t\text{PF}}) - \text{Bu}_{\text{IFM-VCS}} \quad (13)$$

Where:

$\text{VCU}_{\text{net}|L_t\text{PF}}$ number of verified carbon units; dimensionless;

$\text{Credits}_{\text{total},t_1|L_t\text{PF}}$ net anthropogenic greenhouse gas removals by sinks, as estimated for $t^*=t_1$ in tCO₂e;

$\text{Credits}_{\text{total},t_2|L_t\text{PF}}$ net anthropogenic greenhouse gas removals by sinks, as estimated for $t^*=t_2$ in tCO₂e; and

$\text{Bu}_{\text{IFM-VCS}}$ total number of credits withheld in VCS buffer account.

For the project activity, the second monitoring periods lasts from 01/07/2016 to 30/06/2021 with 5 years, for the convenience of VCU selling, it should be divided into every single year instead of for the whole monitoring period of 5 years. The VCU in every year is also calculated with buffering deducting. The whole VCU during the 5 years is the sum of VCU in every single year. In a word, the results of VCU issued during the second monitoring period is the same as the sum of the VCU in every year.

According to the analysis in NON-PERMANENCE RISK REPORT(version 1.0), the overall risk rating is 18%, then 18% of the total emission reductions shall be deducted.

Therefore, the emission reduction detail is listed:

Credits _{total,LtPF,t2-t1} (tCO _{2e})	Risk Score(%)	Bu _{IFM-VCS} (tCO _{2e})	VCU _{net,LtPF} (tCO _{2e})
350,337	18	63,061	287,276

Credits_{total,LtPF,t2-t1} = 701,441-351,104=350,337 (tCO_{2e})

VCU_{net,LtPF} = 350,337-63,061=287,276 (tCO_{2e})

Therefore,CQC verification team confirms that the VCU_{net,LtPF} of the project is listed in the following:

Year	Monitoring period	Baseline emissions or removals (tCO _{2e})	Project emissions or removals (tCO _{2e})	Leakage emissions (tCO _{2e})	Net GHG emission reductions or removals (tCO _{2e})	Buffer pool allocation (tCO _{2e})	VCUs eligible for issuance (tCO _{2e})
2016	01/07/2016-31/12/2016	5,933	-28,895	0	34,828	62,69	28,559
2017	01/01/2017-31/12/2017	12,000	-57,576	0	69,477	12,506	56,971
2018	01/01/2018-31/12/2018	12,395	-57,576	0	69,871	12,577	57,294
2019	01/01/2019-31/12/2019	12,789	-57,576	0	70,266	12,648	57,618
2020	01/01/2020-31/12/2020	13,184	-57,576	0	70,660	12,719	57,941
2021	01/01/2021-30/06/2021	6,654	-28,581	0	35,235	6,342	28,893
	Total	62,955	-287,382	0	350,337	63,061	287,276

Hence, CQC verification team confirms that GHG emission reductions and removals have been quantified correctly in accordance with the project description and applied methodology.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

All necessary documentation is collected, referenced and is easily accessible in hard-copy or electronic format. The data pertaining to the monitored parameters are maintained in the identified internal records and consistent with the values stated in the Monitoring Report version 02. Key data have been cross-checked via external sources, such as records of Filed measurement of Forest management inventory.

For the data and parameters available at validation, the related evidence has been validated at validation stage and the reliability of the evidence, and the source and nature of the evidence has been confirmed and correctly applied at verification stage.

For the data and parameters monitored, the data and parameters related to forest fire in the project scenario, was verified through reviewing the statement issued by local forestry authority, the statement was sourced from local authority and the reliability is confirmed.

For the parameter DBH, as well as the area of each sample plot, the data were sourced from Sample plot monitoring records. During the on site visit, spot checks were made on sample sample plots P-01-LYJ-03、P-01-LYJ-07、P-03-YL-17、P-03-YL-21、P-03-YL-25、P-03-YL-27, and also measured the DBH of trees and geographical coordinates of sample plot. These data mentioned above measured by CQC team is consistent with the raw sample plot monitoring records. Hence, the reliability is confirmed.

For the area of each stratum (A_i), the data was sourced from the national second class forest investigation (/41/), which is conducted by a certificated third-party, East China Forest Inventory & Planning Institute, based on the National Forest Resource Investigation Technical Regulation issued by the State Forestry Administration.

CQC verification team confirms that the quantity of evidence is sufficient and appropriate to determine the GHG reductions and removals.

4.6 Non-Permanence Risk Analysis

The non-performance risk report and Risk Calculation Sheet are provided by PP, the risk assessment was conducted according to the VCS Procedural Document “AFOLU Non-Permanence Risk Tool” (version 4.0) . PP adopted the Risk Report Short template and combining with the Risk-Report Calculation-Tool excel sheet.

CQC has reviewed the Non-Permanence Risk Report (/22/) ,Risk Calculation Sheet and the related evidences, include the Timber Management Plan (/16/), and interviewed with stakeholders, CQC has evaluated the risk assessment undertaken by the project proponent and assess all data, rationales, assumptions, justifications and documentation provided by the project proponent to support the non-permanence risk rating, then CQC confirms that the evidences are substantial, and the overall risk rating is 18% based on the provided evidences, AFOLU Non-Permanence Risk Tool (version 4.0) and VCS Standard(version 4.0) .

Each risk category was calculated based on the VCS guidance and the input provided by the PP. The information was verified and cross-checked through document and literature review, on site visits of the project area and interviews conducted.

5 VERIFICATION CONCLUSION

CHINA QUALITY CERTIFICATION CENTER (CQC) has conducted the verification of Fujian Yong'an Improved Forest Management Project which is located Yong'an City, Fujian Province, P.R.C. and applying the VCS methodology VM0010 version 1.2, on the basis of VCS Standard Version 4.2, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project which has approximately 7,186 ha commercial forest, is located in Yong'an City, Fujian Province, P.R.C. and implemented by Yong'an Forestry Bureau of Fujian province (hereafter "project owner") to protect the once logging forest.

The verification scope is defined as an independent and objective review and ex-post determination of the monitored GHG emission reductions, and consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using CQC internal procedures.

In summary, CQC confirms that the project is implemented as planned and described in the validated VCS project description. The forestry management conversion includes 7186 ha logged to Protected Forest (LtPF) spreading in Fujian Yong'an City, which are protected as non-commercial forestry. The monitoring system is in place and reduces the GHG emissions as anthropogenic GHG removals by sinks. The GHG emission removals by sinks verified totalize 287,276 tCO_{2e} with buffer account deduction for the monitoring period.

Our opinion relates to the projects' actual net GHG removals by sinks and resulting net anthropogenic GHG removals by sinks is reported and related to the valid and registered project baseline, monitoring plan and its associated documents.

Verification period: From 01/07/2016 to 30/06/2021.

Verified GHG emission reductions and removals in the above verification period:

Monitoring Period	Baseline emissions or removals (tCO _{2e})	Project emissions or removals (tCO _{2e})	Leakage emissions (tCO _{2e})	Net GHG emission reductions or removals (tCO _{2e})	Buffer pool allocation (tCO _{2e})	VCUs eligible for issuance (tCO _{2e})
01/07/2016-31/12/2016	5,933	-28,895	0	34,828	6,269	28,559
01/01/2017-31/12/2017	12,000	-57,476	0	69,871	12,506	56,971

01/01/2018-31/12/2018	12,395	-57,476	0	69,871	12,577	57,294
01/01/2019-31/12/2019	12,789	-57,476	0	70,266	12,648	57,618
01/01/2020-31/12/2020	13,184	-57,476	0	70,660	12,719	57,941
01/01/2021-30/06/2021	6,654	-28,581	0	35,235	6,342	28,893
Total	62,955	-287,382	0	350,337	63,061	287,276
Average				70,067		57,455

APPENDIX A: DOCUMENTS REVIEWED OR REFERENCED

- /1/ VCS-PD version 02 dated 05/06/2016
- /2/ VCS-MR version 1.0 dated 25/10/2021
- /3/ VCS-MR version 2.0 dated 28/03/2022
- /4/ ER calculation spreadsheet
- /5/ Uncertainty Analysis spreadsheet
- /6/ Validation Report version 1.0 dated 12/06/2016
- /7/ Verification Report version 1.0 dated 02/08/2016 for the first monitoring period
- /8/ VM0010 Version 1.2 dated 27/03/2013
- /9/ VCS Standard, version 4.2, dated 20/01/2022;
- /10/ VCS Program Guide, version 4.1 dated 20/01/2022;
- /11/ Registration & Issuance Process, version 4.1, dated 20/01/2022
- /12/ Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities” (VT0001 VCS AFOLU Additionality Tool v3.0) dated 01/02/2012
- /13/ VCS AFOLU Non-Permanence Risk Tool version 4.0, dated 19/09/2019
- /14/ Tool for the “Calculation of the number of sample plots for measurements within A/R CDM project activities” (version 02.1.0) approved by the CDM Executive Board.
- /15/ VCS Validation and Verification Manual, version 3.2, dated 19/10/2016;
- /16/ Timber Management Plan
- /17/ Business license of the project proponent
- /18/ Historical management records

- /19/ Forestry Right Certificates of the Project
- /20/ Maps of the Project
- /21/ Certification issued by local Forest Bureau on illegal logging
- /22/ Non-Permanence Risk Report (version 1.0)
- /23/ Participatory rural appraisal (PRA) provided by the local Forest Bureau dated 12/2016 ,06/2018 and 05/2021.
- /24/ <http://verra.org>
- /25/ The national forestry inventory (II) in 2005
- /26/ National Forestry Law of China
- /27/ Statement on fire and natural disturbance issued by the local forestry authority dated 30/06/2021
- /28/ Notice on the complete cessation of commercial logging issued by the State Forestry Administration on 16/02/2015
- /29/ Statement issued by the local forestry administration dated 30/06/2021
- /30/ The 12th Five-year plan issued by State Forest Bureau (Guofa [2011] No.3)
- /31/ The 13th Five-year plan issued by State Forest Bureau (Guohan [2016] No.32)
- /32/ Technical guidelines for national forest inventory. SFA 2003 No.61
- /33/ IPCC Guidelines for National Greenhouse Gas Inventories (2006), Table 4.9.
- /34/ “Economic Evaluation Method and Parameters for Project Construction” (version 3)
- /35/ Forest resource operation and management published by Chinese Forest Press in 2001.
- /36/ Training record and meeting minutes.
- /37/ Questionnaires: questionnaires of local stakeholders dated 01/2015 prior to the second monitoring period and 100 questionnaires of local stakeholders dated 06/2021 at the end of second monitoring period
- /38/ Sample plot monitoring records

- /39/ Monitoring Manual and monitoring plan.
- /40/ timber production completion records.
- /41/ National second class forest investigation conducted by East China Institute of forest Inventory and Planning.
- /42/ The certificate of East China Institute of forest Inventory and Planning (Certificate number: Jia A 002);
- /43/ The implementation table of timber harvest stock volume in Yong'an City issued by the local forestry authority .
- /44/ Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (PoAs);
- /45/ Guidelines for carbon sink measurement and monitoring of afforestation projects issued by National Forestry and Grassland Administration dated 02/2011
- /46/ The statement with regard to the project boundary issued by the local forestry authority dated 30/06/2021
- /47/ KMLfile of the project
- /48/ Technical Training Record
- /49/ Periodical payroll of local residents who involved in the project.
- /50/ The 14th Five-year plan period issued by Fujian Provincial People's Government and Fujian Forestry Bureau
- /51/ VCS-MR version 3.0 dated 01/06/2022

APPENDIX B: RESOLUTION OF CORRECTIVE ACTION /CLARIFICATION / FORWARD ACTION REQUESTS

Draft report clarifications and corrective action requests by validation team	Summary of project participant response	Verification team conclusion
CL 01 The evidence of the project start date is not provided to VVB during the onsite visit, and not clearly stated in the MR(version 01).	The evidence of the project start date has been provided to VVB. Section 1.5 of the monitoring report has been updated as follows: The Project Start Date is represented by the implementation of the forest protection project on 01/07/2011. This is according to the Cooperation Agreement for the Greenhouse Voluntary Emission Reduction Project in Yong'an, Fujian Province, signed between PP and forest right owners on December 16, 2010. The agreement states that the project start date is July 1, 2011 and end date is	CQC verification team reviewed the Cooperation Agreement for the Greenhouse Voluntary Emission Reduction Project in Yong'an, Fujian Province, signed between PP and forest right owners on 16/12/2010 and confirms that the project period begins on 01/07/2011 and ends on 30/06/2041, with a project lifetime of 30 years. Additionally, CQC team reviewed the updated MR, and confirms that the evidence of the project start date is clearly stated. Hence, CL 01 was successfully closed.

Draft report clarifications and corrective action requests by validation team	Summary of project participant response	Verification team conclusion
	June 30, 2041.	
CL 02 The project location and boundary are not clearly stated in section 1.7 of the MR(version 01).	Section 1.7 of the monitoring report has been updated as follows: Fujian Yong'an Improved Forest Management Project is located in Yong'an City, Fujian Province, P.R.C. The geographic coordinate of Yong'an city is 116°56' ~117°47' E and 25°33' ~26°12' N. The emission reduction of the project is from all the key location commercial forest of Yong'an City, which distributes in the 11 towns(Ansha, Caoyuan, Dahu, Gongchuan, Hongtian, luofang, Shangping, Xiaotao,Huainan, Qingshui, Xiyang) and 3 subdistrict offices (Yanbei, Yannan, Yanxi) . See the KML file for the specific boundary location of the project.	CQC verification team reviewed the updated MR and KML file of the porject , and confirms that the project location and boundary are clearly and correctly stated. Hence,CL 02 is successfully closed.
CL 03 The results of project implementation, including the results of monitoring and the benefits the project may bring to local stakeholders are not described in section 2.2 of the	Section 2.2 of the monitoring report has been updated as follows: Based on the survey(January 2015 and June 2021	CQC verification team reviewed the updated MR and confirms that the results of project implementation, including the results of monitoring and the benefits the project may bring to local stakeholders are clearly described in section 2.2.

Draft report clarifications and corrective action requests by validation team	Summary of project participant response	Verification team conclusion
MR(version 01).	respectively) combining the questionnaire and Participatory Rural Appraisal (PRA)(December 2016, June 2018 and May 2021 respectively), the results showed that: The project activities have various benefits such as ecological and economic benefits. The ecological benefit is that increasing forest coverage will benefit the local ecological environment, generate more oxygen and absorb more carbon dioxide, and contribute to the mitigation of climate change. The economic benefits are reflected in the fact that the project activities can well promote the development needs of local stakeholders, and the protected forest area will create certain employment opportunities for forest management, such as hiring some residents as forest rangers.	Hence, CL 03 is successfully closed.
CL 04 The description of measurement methods and procedures to be applied for the CDIST_IL,i,t PRJ such as allometric regression equations for the above ground carbon stock of	Section 4.2 of the monitoring report has been described and updated according to the methodological requirements. The allometric regression equation is the unary	CQC verification team reviewed the updated MR and confirms that the description of measurement methods and procedures to be applied for the CDIST_IL,i,t PRJ such as allometric regression equations for the above ground carbon stock of each harvested tree is clearly stated in

Draft report clarifications and corrective action requests by validation team	Summary of project participant response	Verification team conclusion
each harvested tree is not clearly stated in section 4.2 of the MR(version 01).	volume equation provided by the local forestry authority, and the Unary volume equation has been provided to VVB.	section 4.2. Hence, CL 04 is successfully closed.
CL05 was raised as the activity shifting leakage is not clearly stated in section 5.3 of monitoring,report(version 1.0).	Section 5.3 of the monitoring report has stated as follows: Through full demonstration, there is no project activity shifting leakage in the project. The total timber harvest has been decreasing sharply since the implementation of the project activity, considering that other lands owned by the project proponent are all located in Yong'an City, the hypothesis that the PP might have designated new lands as timber concessions or increasing harvest rates in lands already managed for timber is impossible to occur. In conclusion, the implementation of the project activity could not lead to the reductions in carbon stocks or increases in GHG emissions of Yong'an City.	CQC verification team reviewed the updated MR and confirms that the activity shifting leakage is clearly stated in section 5.3. Hence, CL 05 is successfully closed.