

**Gold Standard Performance
Certification Report**

OF

**“AFFORESTATION PROJECT IN
TONGLIAO, INNER MONGOLIA”**

IN

CHINA

Gold Standard ID: GS 3031

Methodology: Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)

Monitoring Period: 01/01/2021 to 31/12/2023 (FIRST AND LAST DAYS INCLUDED)

Report No: CCIPL2246/GS/RCP-VER/AFPT/20240408

Revision number: 04

Report Date: 24/03/2025

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I. PROJECT DATA

Project title:	Afforestation Project in Tongliao, Inner Mongolia		
Project Areas:	Zhaogensumogacha and Nugustaigacha Horqin Left Rear Banner		
Host Country	China		
Registration No. / Date:	GS ID: GS3031 23 rd November 2015	Scale:	Large
Monitoring period:	01/01/2021 to 31/12/2023 (including both the dates)	Monitoring Period Number:	2 nd
Methodology:	Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)	Sectoral Scope/Technical Area:	14/14.1
Initial Monitoring Report:	Version 01; Dated: 11/06/2024		
Final Monitoring Report:	Version 03; Dated: 21/03/2025		
Verification Report Revision Date:	Version 1.0; Dated: 11/06/2024 - Draft Verification Report (along with findings) Version 2.0; Dated: 21/10/2024- Draft Final Verification Report submitted to the internal technical reviewer. Version 3.0; Dated: 05/11/2024- Final Verification Report (after internal technical reviewer), submitted to SC for round 1 review. Version 4.0; Dated: 24/03/2025 – Revised Final Verification Report after 1 st Round of Review Report from GS		
Total GHG removals (tCO₂e):	Year	Verified/ ex-post CO₂ fixation (tCO₂e) (Before buffer)	Verified/ ex-post CO₂ fixation (After 20% buffer deduction)
	01/01/2021 – 31/12/2021	1,659	1,328
	01/01/2022 – 31/12/2022	1,659	1,327
	01/01/2023 – 31/12/2023	1,659	1,327
	Total	4,977	3,982
GHG removal measures:	<p>GHG (CO₂) emission removals through reforestation with native tree species: <i>Pinus sylvestris</i> and <i>Poplar</i> spp.</p> <p>During on-site verification^{/i-xii/} of the designated project site, it has been confirmed that during reported monitoring period (01/01/2021 to 31/12/2023), the above-mentioned species have been planted in the project area. VVB has further performed an independent web-search/reference of literature or website reviewed/ to cross-verify that the species planted are native to the project region and will have net positive impact in and/or around the region. VVB, furthermore based KMLs and remote sensing GIS shapefiles^{/13/}, verified that the stakeholder and community consultation has identified 100% High Conservation Value ecosystems, habitats, landscapes, or biodiversity areas. The program operates on community land only.</p>		

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Party	Project participants	Party considered a project participant	Contract party
China (Host)	Climate Bridge (Shanghai) Ltd. (Project developer)	No	<input checked="" type="checkbox"/>
China	Village Collectives, Jane Goodall Institute- Shanghai Roots & Shoots (Project Participant)	Yes	<input type="checkbox"/>

II. VERIFICATION TEAM

Verification Team			Role									
Full name	Affiliation	Appointed for Sectoral Scopes (Technical Areas)	Team leader	Acting/trainee Team Leader	Local Expert	Team Member (Auditor)	Technical Expert	Acting/Trainee Tech. Expert	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Ahalee Bhowmik	India	14.1	X				X					
Anuradha Thakur (<i>worked till 9th September 2024</i>)	India	14.1				X						
Chiluveri Murari	India	14.1, 15				X						
Nara Shen Yan		--			X							
Vikash Kumar Singh	India	1.1, 1.2, 3.1, 4.1, 13.1, 13.2, 14.1, 15								X		

Audit Team Experience:

The team composition is linked to the methodology and local experience in the host country.

Ahalee Bhowmik: Ahalee Bhowmik is the team leader and technical expert at CCIPL. She is a forestry post-graduate and has knowledge & skills for the land use & forestry sector. She has more around 1.5 years of work experience in GHG mechanism including development of standards and methodology for an Indian GHG program. Currently, she is working on a variety of land use & forestry projects under different GHG programs including GS, and VCS. She has relevant ecological and biodiversity expertise for assessing WRC, ARR, IFM & REDD projects and relevant forestry and/or other land use experience in the region.

Anuradha Thakur (worked till 9th September 2024) Anuradha Thakur is the technical expert at CCIPL. She is a forestry doctorate and has knowledge & skills for the land use & forestry sector. She has more around six months of work experience in GHG mechanism including development of standards and methodology for an Indian GHG program. Currently, she is working on a variety of land use & forestry projects under different GHG programs including GS and VCS. She has relevant ecological and biodiversity expertise for assessing ARR projects and relevant forestry and/or other land use experience in the region.

Chiluveri Murari: Chiluveri Murari is the team member and technical expert at CCIPL. He is a forestry post-graduate and has knowledge & skills for the land use & forestry sector and published multiple research publications in relation to forest ecosystem and carbon sequestration. He has more than 1 years of work experience in GHG accounting. Currently, he is working on a variety of land use & forestry projects under different GHG programs including GS and VCS. He has relevant ecological and biodiversity expertise for assessing WRC, ARR, ALM & REDD projects and relevant forestry and/or other land use experience in the region.


Nara Shen Yan: Nara Shen Yan is the local expert of China.

Vikash Kumar Singh: Vikash Kumar Singh is a qualified lead assessor and internal technical reviewer for validations and verifications GHG mitigation projects under CDM and Gold Standard (GS) and actively been involved in the validation and verification and internal technical review of more than 300 GHG mitigation projects. He is qualified as technical expert for TA 1.1, 1.2, 3.1,4.1,13.1, 13.2, 14.1 and 15 under CDM SS categorization. He has undergone extensive training in the validation and verification of carbon offset projects including the accreditation requirements for the VVBs. Currently, he is employed with Carbon Check in the capacity of Executive Director and Compliance Officer. Vikash has extensive work experience on working on land use & forestry projects under GS, and GS projects globally. Vikash has extensive work experience on working in GS projects in East Africa, as well as Central America.

III. VERIFICATION REPORT

Status	Verification Phases
<input checked="" type="checkbox"/>	Desk Review
<input checked="" type="checkbox"/>	On Site Assessment
<input checked="" type="checkbox"/>	Follow up interviews
<input checked="" type="checkbox"/>	Corrective Actions / Clarifications Requested
<input checked="" type="checkbox"/>	Resolution of outstanding issues
<input checked="" type="checkbox"/>	Full Approval and Submission for Issuance
<input type="checkbox"/>	Rejected

Status	Distribution Conditions
<input checked="" type="checkbox"/>	No distribution without permission from the Client or responsible organizational unit
<input type="checkbox"/>	Limited Distribution
<input type="checkbox"/>	Unrestricted distribution

Final Approval	
Date	24/04/2025
Approved by	Amit Anand
Designation	CEO
Signature	



ABBREVIATIONS

AGB	Above Ground Biomass
AQL	Acceptable Quality Limit
AFOLU	Agriculture, Forestry and other Land Use
ARR	Afforestation, Reforestation and Revegetation
BEF	Biomass Expansion Factor
BGB	Below Ground Biomass
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CO_{2e}	Carbon Dioxide Equivalent
CL	Clarification Request
DBH	Diameter at breast height
DNHA	Do No Harm Assessment
DPCR	Draft Performance Certification Report
DW	Dead Wood
GIS	Geographical Information System
KML	Keyhole Markup Language ¹
LTA	Long-term Average
LULC	Land Use Land Cover
LULUCF	Land use, Land-use Change, and Forestry
DR	Document review
DVR	Draft Verification Report
EI	External Individual
FA	Final Approval
FAR	Forward Action Request
FPCR	Final Performance Certification Report

¹ an XML notation for expressing geographic annotation and visualization within two-dimensional maps and three-dimensional Earth browsers.



GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
KPI	Key Project Information
MP	Monitoring Period
MR	Monitoring Report
MUs	Modelling Units
PD	Project Developer
QC/QA	Quality control /Quality assurance
TA	Technical Area
TR	Technical Review/ Reviewer
UQL	Unacceptable Quality Limit
VVB	Validation & Verification Body



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1. Introduction

The Project Developer (PD), “*Climate Bridge (Shanghai) Ltd.*” has appointed the *Carbon Check (India) Private Ltd. (CCIPL)*, a GS certified VVB to perform second (2nd) performance certification of the GS project titled “**Afforestation project in Tongliao, Inner Mongolia**” (GS3031) in non-Annex 1 host country of China (*hereafter referred to as “project activity” and/or project*).

The purpose of this report is to document the compliance of the proposed GS project “Afforestation project in Tongliao, Inner Mongolia” (*hereafter referred to as “project”*) with the requirements of the GS4GG^{B01/} and the applied Gold Standard Methodology Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)^{B02/B03/}, GS4GG Principles & requirements v1.2^{B02/}, GS4GG LUF activity requirements v1.2.1^{B01/} and subsequent decisions by the Gold Standard Secretariat.

Further VVB, has provided a set of criteria under section 1.2 of this report to deliver consistent information on project operations, monitoring and reporting and compliance with host country criteria and Gold Standard specific principles.

The verification objective of the project includes:

- ✓ Assessment of compliance with the GS4GG rules and requirements^{B01/}.
- ✓ Assessment of compliance with the applied GS Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)^{B02/}.
- ✓ Assessment of project compliance with the relevant rules including host country legislation

This report contains the findings and resolutions from performance certification and a certification opinion on verified GHG removals accrued during this monitoring period due to implementation of the project.

1.1 Objective

Verification is the periodic independent review and ex-post determination of both quantitative and qualitative information by a Validation & Verification Body (VVB) of the monitored GHG removals achieved as a result of the implementation and monitoring of the registered GS A/R project activity during a defined monitoring period.

Certification is the written assurance by a VVB that, during a specific period reported monitoring period, a project activity achieved the GHG removals as verified.

The objective of this verification is to verify and certify GHG removals and emissions as reported for the project activity titled “**Afforestation project in Tongliao, Inner Mongolia**” for the period 01/01/2021 to 31/12/2023 (including both the dates).

The purpose of this verification is to perform review of the monitoring results and verify that the monitoring methodology has been implemented in accordance with the monitoring plan and monitoring data and used to confirm the net GHG removals, is sufficient, definitive and presented in a concise and transparent manner. Other non-GHG parameters shall also be assessed as per the requirement of Gold Standard^{B01/}.

1.2 Scope and Criteria

The scope of the **performance certification** is:

- To verify the project implementation and operation with respect to the registered PDD.
- To verify the implemented monitoring plan with the registered PDD and applied AR LUF-Activity Requirements v1.2.1^{B01/}.

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- To verify that the actual monitoring systems and procedures are in accordance with the monitoring systems and procedures described in the registered monitoring plan.
- To evaluate the GHG removal data and conclude with a reasonable level of assurance whether the reported quantity of GHG removal is free from material misstatement or not; and
- To verify that reported GHG emission removal data is sufficiently supported with requisite evidence and/or information.

The verification shall ensure that the reported net GHG removals and emissions are complete and accurate in order to be certified.

CC IPL's scope of verification as a third-party verifier is to verify project's GHG removals and sustainable development impacts against the requirements set out by the Gold Standard. The verification shall ensure that the reported net GHG removals and emissions are complete and accurate in order to be certified.

The verification comprises a review of the KPI^{01/} for the reported monitoring period starting from 01/01/2021 - 31/12/2023 and based on the registered PDD, in part of the monitoring parameters and monitoring plan, GHG removal calculation spreadsheet^{t04/}, monitoring methodology^{B02/B03/} and all related evidence provided by the PD.

During 11th June to 13th June 2024 an onsite visit as physical verification of the project site and interviews^{i-xii/} with stakeholder's and/or representative of project developer have been carried out by CC IPL team as part of the verification process.

1.3 Level of Assurance

In line with GS: AR_LUF_Risks-Capacities-Guideline v1.0^{B01/}, VVB has followed a risk-based assessment approach based on review of the project description^{01/}, to evaluate correctness, completeness, and consistency of the data reported. An evidence-gathering plan has been developed to assess and mitigate any risk associated with description and justification for the project particulars. VVB has also evaluated and cross-checked the uncertainty analysis performed by the PD for addressing any sample errors, measurement error of model inputs and model prediction error, and estimation of project area.

During the on-site interviews^{i-xiii/}, VVB conducted a thorough examination and cross-verified the monitoring system selected by the Project Developer. In order to assess the suitability of the monitoring system, VVB employed a two-pronged approach:

- Cross-checking the appropriateness of the monitoring method and competence of MRV personnels^{17/}.
- Cross-checking the appropriateness of the monitored values^{06/} and the appropriateness of the ground truthing exercise collaborated by MRV personnels^{17/} for sample plots.

For bullet 1, VVB undertook a comprehensive review of the SOP^{18/} documentation pertaining to the monitoring system, evaluating the standardized monitoring processes. Subsequently, VVB scrutinized the competency certificates of the MRV personnel^{17/} engaged in this standardized monitoring. Further verification occurred through on-site interviews^{i-xiii/} conducted during the inspection. The assessment outcomes are as follows:

- ✓ The procedure of the monitoring system is deemed to be appropriate.
- ✓ VVB, further confirms the appropriateness of the SOP^{18/} used for monitoring.
- ✓ Adding further, the MRV personnels^{17/} were found competent and VVB confirms that they can appropriately apply this standardized process to yield the monitoring results.
- ✓ In addition to above, VVB has cross-checked the raw data^{06/} of following parameters and compared it by performing few witnesses' measurement of sample plots by using acceptance sampling:

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- i) Tree Height
- ii) Diameter at Breast Height
- iii) Number of trees in each PSP

Based on the observations made during the on-site inspection^{/i-xii/}, VVB affirms that the monitoring procedure employed by the Project Developer, has been determined to be accurate and suitable. This conclusion was further verified through a ground truthing exercise carried out by the VV team during the on-site inspection^{/i-xiii/}. A comparative analysis of both sets of results, namely the raw data used in carbon calculation and the outcomes of the on-site witness^{/i-xiii/} performance, revealed a high degree of similarity, with negligible or no discernible variation.

Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertion is materially correct and is a fair representation of the GHG data and information. However, based on the assessment above, sectoral expertise and review of removal rate of project, VVB concludes that the allometric equation^{/08/} applied is appropriate and the carbon calculation from the project yields a plausible value and thus acceptable to the VVB.

The project verification has been conducted to provide a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertion is materially correct and is a fair representation of the GHG data and information. The documents reviewed are listed under section 2.1 of this report.

Based on the assessment of project particulars and the information/evidence (presented by project developer) against the applicable version of the relevant GS guidance document^{/B01-B04/}, VVB have raised a total of Eleven (11) findings including: Four (04), CARs Seven (07) CLs and have satisfactorily closed.

VVB confirms that the GHG mitigations and/or GHG emission removals from the project have been accounted correctly and are complying with the baseline methodology^{/B03/}.

2 Methodology

The performance certification consists of the following four phases:

1. Completeness check of the Gold Standard Sustainability Monitoring Report.
2. Review of project documentation (registered monitoring plan, applied methodology, project design document, applicable tools in particular attention to the frequency of measurements, QA/QC procedures and other relevant documents and regulations).
3. On-site visit (including follow-up interviews with project stakeholders, when deemed necessary).
The on-site visit and interviews assessment include the following:
 - An assessment of implementation and operation of project activity with respect to registered PDD / KPI.
 - Review of information flows for generating, aggregating and reporting the monitoring parameters.
 - Interview with relevant personnel^{/i-xiii/} to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan of the PDD.
 - Cross check of information and data provided in the KPI with inventories, PD sampling records and GHG removal calculation sheet.
 - Review of assumptions made in calculating the GHG removals.
 - Implementation of QA/QC procedure in-line with the DDP and methodology requirement.
4. Resolution of outstanding issues and the issuance of the final Verification report and Certification statement.

The following sections outline each step in more detail.

Duration of Audit:

- Signing of Letter of Engagement: 15/04/2024

- Submission of requisite documents to the VVB: 24/05/2024
- Onsite Audit: 11/06/2024 – 13/06/2024
- Submission of DVR to client along with audit findings: 13/06/2024

2.1 Desk Review

The following table outlines the documentation reviewed during the new area certification and performance certification:

S.No.	Documents	References
/01/	<ul style="list-style-type: none"> a. Tongliao_AR_GS_V01-Project-Design-Document-20240430-clean b. L.1-Tongliao_AR_GS_V01-Monitoring-Report-20240430-clean.docx 	<ul style="list-style-type: none"> a. Version 1.0, 30th April 2024 Version 2.0, 23rd September 2024 b. Version 1.0, 30th April 2024 Version 2.0, 24th September 2024 Version 3.0, 21st March 2025
/02/	<ul style="list-style-type: none"> • Transition review report • GS 3031 Tongliao_Performance_New Area_Transiton review_Closed_230210723 	Dated: 07.23/2021
/03/	<p>GHG Removals</p> <ul style="list-style-type: none"> • Ex-post carbon calculation: L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240429 .xlsx • Ex-ante carbon calculation: B.1&B.4- Tongliao_CO2-Fixation Calulation-PD-clean-20240806 	Carbon calculations Ex-post
/04/	<ul style="list-style-type: none"> • GS3031_GS3031_Project-Annual-Report_01-01-2022 to 31-12-2022.pdf • Annual Report-clean-2016-2020 • GS3031_GS3031_Project-Annual-Report_2022 • L.8-GS3031_GS3031_Project-Annual-Report_01-01-2022 to 31-12-2022 • submitting email-2021 • Tongliao_Annual report 2021 	Version 2.0, 16 th August 2022
/05/	<p>Stakeholder Communication</p> <ul style="list-style-type: none"> • Stakeholder surveys.pdf • Tongliao_Local Stakeholder Consultation-2014 • Tongliao_Local Stakeholder Consultation-2016 • Project Meeting presentation-2014 • Project Meeting presentation-2016 • 01-GS Invitation contact list • 02-invitation letter • 02-Tongliao_Email reponses to LSC invitation • Tongliao LSC_Opinion Evaluation Form-2014 • Tongliao LSC_Opinion Evaluation Form-20146 • LSC_Meeting Attendance Form-2014 • LSC-Meeting Attendance Form-2016 • Photos <ul style="list-style-type: none"> • σϑ «Σ-ι σ ϕϑ»_202307202258375.jpg 	



	<ul style="list-style-type: none"> σ «Σ-1 í σ ϕ» τϵç_202307210151374.jpg σ «Σ-1 í σ ϕ» τϵç_202307210151378.jpg σ «Σ-1 í σ ϕ» τϵç_202307210151379.jpg σ «Σ-1 í σ ϕ» τϵç_2023072101513719.jpg 	
/06/	Monitoring Data and Raw field data sheets.pdf Enhancement of biodiversity” sheet	Ex-Post Calculations
/07/	<ul style="list-style-type: none"> Tongliao_Training manual and records Training record- 2014 Training record- 2017 & 2019 	
/08/	Peer Reviewed Literature for ex-post <ul style="list-style-type: none"> Qinghai_Data source of allometric equations .pdf Study on the Volume Table of Scotch Pine in Saihanba Aera.pdf Li Yuqiang_reference Carbon potential of species included: <ul style="list-style-type: none"> Populus Simonii in North China Study on growth regularity of Pinus sylvestris var. mongolica 4-GBT15776-2023 Technical regulation for forestation 	Co2 Fixation
/09/	<ul style="list-style-type: none"> Records from contacts of Grievances .pdf LUF INPUT & GRIEVANCE MECHANISM-2014 LUF INPUT & GRIEVANCE MECHANISM-2016 The photos of the Grievance Expression Process Book published on the notice board grievances 	Grievance Mechanism
/10/	Biodiversity questionnaire .pdf	Organizational documents
/11/	SDG Monitoring Parameters <ul style="list-style-type: none"> PDDCL04_V1.3_IQ_SDG-Impact-tool Tongliao_Sustainability-Monitoring-Plan-2014.pdf Tongliao_Sustainability-Monitoring-Plan-2016.pdf CL01-biodiversity evidence Employment agreements of forest rangers Tongliao- Annual Report-clean-2016-2020 01-Employment agreements of all forest rangers 02-Electronic payment for all forest rangers 	Organizational documents
/12/	Previous Performance Certification <ul style="list-style-type: none"> Tongliao_FVerR_Performance Certification+New Area_20210625.pdf 	Version 2.0, 25 th June 2021
/13/	Maps & Shapefiles: <ol style="list-style-type: none"> Folder_Project Boundary & Project Area Folder_Individual Modelling Units <ol style="list-style-type: none"> MU1 MU2 MU3 Folder_Infrastructure 	
/14/	GHG Consideration <ul style="list-style-type: none"> Contractual agreement between the parties involved in the standalone project activity Project implementation schedule Proof of land title and carbon credit ownership Agreement between project implementor and landowner 	
/15/	Baseline Reassessment <ul style="list-style-type: none"> History of the project site Baseline assessment Forest/ Non- Forest Analysis as per Annex C of GS LUF Activity Requirements and Vegetation cover maps 	



/16/	<p>Safeguarding Principles Assessment</p> <ul style="list-style-type: none"> • HR policies reflecting human rights, gender equality and women’s empowerment, community • Review of Literature: <ul style="list-style-type: none"> • Analysis and Evaluation on Status of Air Quality within the Last Three Years in Tongliao City • Tongliao_Afforestation Planning 2014 • Tongliao_Afforestation Planning 2016 • Tongliao_Guidelines for pesticide • Tongliao_Reference-Ecological Environment and Sustainable Management of Horqin Sandy • Yan Meng, Wang Xuyang, Zhou Liye&Li Yuqiang (2022). Variation characteristics and influencing factors of soil organic carbon content during desertification in Horqin Sandy Land Chinese Desert. (05), 221-231. • http://www.houqi.gov.cn/zwgk/zfxxgk/fdzdgknr/ghxx/fzgh/202403/t20240307_642583.html 	
/17/	<p>Project Operations</p> <ul style="list-style-type: none"> • I.4-QAQC Measures for Inspection and Acceptance of Afforestation project • Tongliao_Management Plan-2014 • Tongliao_Management Plan-2016 • Specific onsite organisation chart for the project activity • Afforestation technical regulations of Inner Mongolia (SOP) • Tongliao_Training manual and records • Competencies of monitoring personnel • I.13-Forest Inventory for different MU • Training record- 2014, training record 2017 & 2019 • Project planting plan-2016 • Project design report- 2014 • Evidence of the total project area shall be identified and used to protect or enhance the biological training diversity • Pest Control and Prevention Policy, Fire Plans • Populus simonii_iPlant • Pinus sylvestris var. mongolica_iPlant • Forest Inventory for different MU 	
/18/	<ul style="list-style-type: none"> • Afforestation technical regulations of Inner Mongolia (SOP) • Planting plan-2014 • Planting design report-2016 	SOP
/19/	<p>On-Going Financial Need</p> <ul style="list-style-type: none"> • J.1-Proof for the demonstartion of ongoing financial need- • J.1-Proof for OFN-Thoughts on Building a Shelter Forest Restoration Engineering System • J.2-Ongoing Financial Need • PDDCL13-Expenditure plan of the carbon revenue 	
/20/	<p>Proof of land title and carbon credit ownership</p> <ul style="list-style-type: none"> • Tongliao_Land use agreement of 2014 • Tongliao_Land use agreement of 2016 	
/21/	PDDCAR06- training and education	
/22/	Lv Wen. Populus Simonii in North China, 2002	
/23/	Dataset of plant images taken by drones in Inner Mongolia in 2022-2023—Plant Science Data Center (plantplus.cn)	
/24/	Tongliao Public welfare Forest Ranger, Management Log	
/25/	<p>Risks & Capacities Guideline for ‘Land Use & Forest’ projects :</p> <ul style="list-style-type: none"> • 201-LUF-G-RC-T of Tongliao 	

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	<ul style="list-style-type: none"> • Risk 1.9 • Risk1.1 • Risk1.4 • Risk1.2 	
/26/	Regulations & Approval <ul style="list-style-type: none"> • D.1-Documents to ensure compliance with host country regulations • D.2-Commonly accepted principles and practice • D.3-Declaration from PD that there is no participation under other GHG Programs, and no other form of carbon credits will be c • D.5- Project approval from government • PDDCAR03-GBT 38590-2020 Technical regulations for continuous forest inventory 	
/27/	Others <ul style="list-style-type: none"> • Pictures of the project area • Flora and Fauna commonly found in the project location • MRCL03-Seedings photos of poplar and Pinus sylvestris • MRCL04-Site sampling results of annual report in the second MP 	
/28/	Literature: <ul style="list-style-type: none"> • (PDF) De Novo Genome Assembly of Populus simonii Further Supports That Populus simonii and Populus trichocarpa Belong to Different Sections (researchgate.net) • LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3) https://www.cnki.com.cn/Article/CJFDTotal-GHQJ200503002.htm • Gao Rong, You Li, Bai Yingzhe. The variations of the gale days in Tongliao Station from 1971 to 2017 . Inner Mongolia Meteorology, 2018 (03): 18-21 • Unified database of statistical information (1212.mn) 	
/B01/	GS4GG requirements: <ol style="list-style-type: none"> 107_V2.0_PAR_Programme-of-Activity-Requirements 203_V1.2.1_AR_LUF-Activity-Requirements 501_V2.1_PR_GHG-Emissions-Reductions-Sequestration 203G_V1.0_AR_LUF_Risks-Capacities-Guideline Stakeholder Consultation and Engagement Requirements (version 2.0) 	Other
/B02/	V2.1_LUF_AR-Methodology-GHGs-emission-reduction-and-Sequestration- Methodology	Other
/B03/	A/R Methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities”.	Other
/B04/	Verification contract for the performance certification between CCIPL (VVB) & PD dated 15/04/2023	Other
/B06/	Other GHG programs: <ol style="list-style-type: none"> CDM: https://cdm.unfccc.int/Projects/index.html VCS: https://registry.terra.org/app/search/VCS/All%20Projects GSF: https://registry.goldstandard.org/projects?q=&page=1 Plan Vivo: https://www.planvivo.org/pages/category/projects?Take=28 	Other

During the desk review, CCIPL applied the standard auditing techniques to assess the quality of information provided.

2.2 On-site visit and follow-up interviews with project stakeholders

An OSV was performed by the members of the verification team of Carbon Check from 11th June 2024 to 13th June 2024 at PD's office and 4 sample plantation sites in south of Zhaogensumogacha and in the north of Nugusitaigacha Horqin Left Rear Banner. The project representatives and stakeholders interviewed were as:

Sl. No.	Name (Organisation)	Date	Type	Topic
/i/	Li Yong Xi	11/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • PD's roles and responsibilities. • Baseline scenario. • Sustainability and local stakeholders meeting. • Project implementation. • Future project plans. • Organization structure, roles and responsibilities. • Changes in organization structure • Ownership of carbon credits • Recruitment of staff • Induction Training • Employment contracts • Forest inventory. • Baseline scenario. • Project implementation. • Monitoring activities, sampling activities • DBH and height measurement • Plantation techniques • Species selection • Project operation, roles and responsibilities • Occupational health safety • Training of forest technician, foreman etc.
/ii/	Yu Juan Xu	11/06/2024 – 13/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Forest inventory. • Monitoring activities, sampling activities • DBH and height measurement • Plantation techniques • Species selection • Project operation, roles, and responsibilities • Occupational health safety
/iii/	Mao Lin	11/06/2024 – 12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement

/iv/	Yon Guo	11/06/2024 – 12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Induction Training • Employment contracts • Plantation techniques • desk with respect to identification and protection of endangered / native species • DBH and height measurement
/v/	Chen Na Sitai	11/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/vi/	Wei Zhong lin	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/vii/	Bu Ren Bai La	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/viii/	Ba Jin	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/ix/	Ha Rihu	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/x/	Yi Bu Gegezong	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/xi/	E Erdung	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villagers
/xii/	Ji Rimutu	12/06/2024	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Villager

VVB’s sampling and document review/assessment of key details including interviews during the on-site inspection:

The performance certification team of the VVB has applied a sampling approach for on-site inspection as a part of Performance Certification of the project area, in accordance with the paragraph 38 of the Standard: Sampling and surveys for (version 09.0). Acceptance sampling has been chosen by the performance certification team and, accordingly, steps listed in paragraph 39 of the sampling standard have been followed.

Performance certification team of the VVB has used Raosoft ([Sample Size Calculator by Raosoft, Inc.](#)), an online survey software tool for calculating sample size by using precision level, confidence level and response distribution for determining the sample size. VVB team has opted for 15% margin of error and 85% confidence level in determining the VVB's sample size. The total permanent sample selected by PD i.e., 13 sample plots. Accordingly, VVB has identified 04 representative samples (which is 30% of the PD sample size) of the respective land collectives from the entire plantation area included under the project activity for the current monitoring period.

Sl. No.	Name of the Project Area	Modelling Units	Plantation Area	PD's Sample Size	VVB Sample Size
1	Zhaogensumogacha and Nugusitaigacha Horqin Left Rear Banner	MU 1	190.00	4	01
		MU 2	708.44	4	01
		MU 3	472.52	5	02
Total			1370.96	13	04

VVB has also verified the area of the each of the 04 permanent sampling plots by measuring and/or cross verifying the DBH (through tree girth measurement) and height of 4 PSPs during the on-site inspection.



Fig 1: Opening Meeting

Fig 2: Meeting with stakeholders



Fig 3: DBH Measurement



Fig 4: Height Measurement

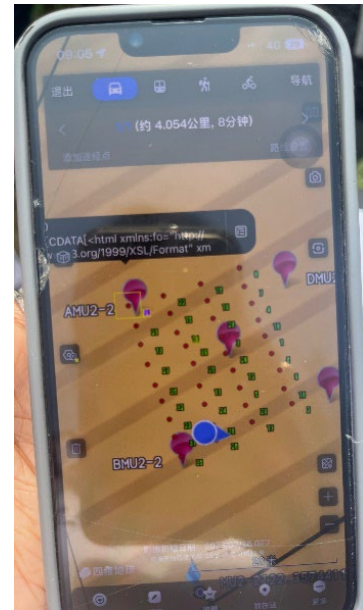


Fig 3: On-site inspection



The field measurement (on 11th June and 12th June 2024) performed by the VVB team reveals no material discrepancy and have been found to be aligned with the monitoring measurements conducted by PD. PD has used *Smart Tools software* while VVB has used Nikon rangefinder for the measurement of tree height. Both the devices were calibrated on site and has been found to be accurate and applicable for the field measurements.

The DBH has been verified through the diameter tape. Furthermore, VVB has also interviewed^{/i-xii/} the MRV personnel involved in project monitoring and field measurement from PD's side and found them competent to perform such standardized measurements for tree parameters (tree height and diameter). The equipment used for the measurement were found appropriate as the results from VVB's equipment reveals comparable and/or consistent results. During the interviews with MRV team, VVB noted that a standardize monitoring SOP has been employed for the project monitoring and/or reporting of field measurement activity. VVB has furthermore crosschecked the trees with the local maps of the PD, which show the actual locations of all the trees along with their GPS co-ordinates and details.



The monitoring raw/field data^{/06/} have been cross-checked with the one transferred to CO₂ Fixation work sheet and found that there were no material errors or omissions during the transfer of data from one platform to other. Hence, VVB confirms that no discrepancy was observed in the data and information flow system applied by the PD. VVB during the desk review of project documentation has checked the following documents to assess the PD's QA/QC process and to cross check the results presented in the CO₂ Fixation work sheet^{/03/} with the raw data sheets^{/06/}:

1. Latest Annual report^{/04/}.
2. Agreements have been verified during the on-site inspection, which is evidence of the total land area implemented under the project.
3. Shape files of the each of the MUs^{/13/}.
4. SOP/Protocol for the project^{/18/}
5. Raw records of field measurement done by the PD^{/06/}
6. Records of training^{/07/}

VVB has interviewed personnel^{/i-xii/} responsible for the carbon calculation^{/03/} including those who transferred the data in the mobile software and further trans imposed it to the excel sheets. This review of the system reveals correct data and information flow and no discrepancy was found. The QA/QC of the data/information flow including data archiving based on this assessment has been found to be adequate and applicable.

Through the above-mentioned activities, VVB confirmed the following aspects in relation to the project activity:

- Confirm the implementation and operation of the project,
- Review the data flow for generating, aggregating and reporting the monitoring parameters,
- Confirm the correct implementation of procedures for operations and data collection,
- Cross-check the information provided in the KPI documentation with other sources,
- Review the calculations and assumptions used to obtain the GHG removal data and ER,
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.

2.3 Resolution of outstanding issues

The objective of this phase of the verification is to resolve any outstanding issues (issues that require further elaboration, research, or expansion) which have to be clarified/corrective action done prior to final VVB's conclusions on the project implementation, monitoring practices and achieved emission

reductions. In order to ensure transparency a verification protocol is completed for the project activity. The protocol shows in transparent manner criteria (requirements), means of verification and resulting statements on verification actual project activity against identified criteria.

The verification protocol serves the following purposes:

- It organises in a table form, details, and clarifies the requirements, a GS project is expected to meet GS requirements.
- It ensures a transparent verification process where the VVB will document how a particular requirement has been verified and the result of the verification.
- It ensures that the issues are accurately identified, formulated, discussed, and concluded in the verification report.
- It ensures the determination of achieving credible emission reductions from the project activity.

The verification protocol consists of a table i.e., tables of findings and preliminary and final opinion of the VVB on every particular issue raised during the verification process.

The findings of verification process are summarized in the tables below:

CAR/ CL/ FAR ID	xx	Section no.	Date: DD/MM/YYYY
Description of CAR/ CL/ FAR			
PD response			
Documentation provided by the PD			
DOE assessment			
Date: DD/MM/YYYY			

In Table FAR, shall reflect the forward actions initiated by the verification team if the monitoring and reporting require attention and/or adjustment for the next verification period.

Findings during the verification can be interpreted as a non-compliance with GS criteria or a risk to the compliance.

Corrective action requests (CARs) are raised, in case:

- (a) Non-conformities 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 which will impair the estimate of emission reductions.
- (d) Issues identified in a FAR during validation/previous verification(s) that are not been resolved by the project participant(s) to be verified during current verification.

Requests for clarification (CLs) are raised if information is insufficient or not clear enough to determine whether the applicable GS requirements have been met.

A forward action request (FAR) is raised during verification to highlight issues related to project implementation/monitoring that require review during the subsequent verification of the project activity. FARs shall not relate to the GS requirements for issuance.

2.4 Internal quality control

The final verification report will pass a technical review before being submitted to the project participant and SustainCert. A technical reviewer qualified in accordance with CCIPL's qualification scheme for GS validation and verification performed the technical review.

2.5 Verification Team

In accordance with the Accreditation Standard and CCIPL's internal procedures a competent team was appointed by CCIPL to carry out the verification of this MR. The team is outlined below:

Verification Team			Type of Involvement							
Full name	Location	Appointed for Sectoral Scopes (Technical Areas)	Supervising the work	Desk review	Site Visit + Interview	Report and protocol Writing	Technical Expert Input	Reporting Support	Technical Reviewer	Technical Expert Input to TR
Ahalee Bhowmik	India	14.1	X	X	X	X	X			
Anuradha Thakur (till 9th September 2024)	India	14.1		X	X	X				
Chiluveri Murari	India	14.1				X		X		
Nara Shen Yan	China	NA			X					
Vikash Kumar Singh	India	1.2, 3.1, 8.1, 13.1, 14.1							X	

3 Verification findings

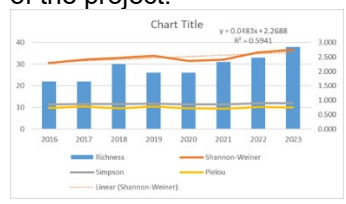
The verification criteria (requirements), the means of verification and the results of verification are documented in detail in Appendix 1.

3.1 Sustainable Development Contributions Achieved

Means of validation	DR, OSV, I										
Findings	CL has been raised and satisfactorily closed.										
Conclusion	<p>CCIPL based on review of MR^{01/}, on-site inspection and interviews^{i-xii/} confirms that the project has contributed to three SDGs which includes:</p> <p>SDG 13: Take urgent action to combat climate change and its impacts SDG 15: Protect, restore and promote sustainable use of ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. SDG 8: Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p> <table border="1"> <thead> <tr> <th>SDGs</th> <th>Target Achieved (as per MR^{02/})</th> <th>VVB Assessment</th> <th>Verified Score</th> </tr> </thead> <tbody> <tr> <td>SDG 13: Climate Action (mandatory)</td> <td>The actual value achieved for GHGs emission avoided and sequestered by this</td> <td>VVB, based on the review of the Remote Sensing GIS^{13/}, KML shapefiles^{13/}, carbon calculation spreadsheet^{t03/} and through the on-site inspection^{i-xii/}, confirms that the project involves</td> <td>+ (Positive)</td> </tr> </tbody> </table>			SDGs	Target Achieved (as per MR ^{02/})	VVB Assessment	Verified Score	SDG 13: Climate Action (mandatory)	The actual value achieved for GHGs emission avoided and sequestered by this	VVB, based on the review of the Remote Sensing GIS ^{13/} , KML shapefiles ^{13/} , carbon calculation spreadsheet ^{t03/} and through the on-site inspection ^{i-xii/} , confirms that the project involves	+ (Positive)
SDGs	Target Achieved (as per MR ^{02/})	VVB Assessment	Verified Score								
SDG 13: Climate Action (mandatory)	The actual value achieved for GHGs emission avoided and sequestered by this	VVB, based on the review of the Remote Sensing GIS ^{13/} , KML shapefiles ^{13/} , carbon calculation spreadsheet ^{t03/} and through the on-site inspection ^{i-xii/} , confirms that the project involves	+ (Positive)								



		project's targeted SDG is 4,977 excluding (Tree Biomass).	plantation of native tree species such as <i>Pinus sylvestris</i> and <i>Poplar</i> spp. which overall has sequestered 4,977 tCO ₂ e (Tree Biomass) for this monitoring period; checked and verified by VVB. Hence, rating of this indicator as positive is correct.	
	SDG 15: Life on land	The current monitoring period has shown an increase in the number of species to 38.	Based on the review of GS MR ^{/01/} , supporting documents and Enhancement of biodiversity" sheet ^{/06//07/} , SDG Impact tool ^{/11/} and on-site inspection/ interviews ^{/i-xii/} , VVB verifies that PD has effectively improved 38 plant species during the current monitoring period leading to a substantial enhancement in the well-being of villagers. VVB, during the on-site inspection ^{/i-xii/} and through the review of the excel sheet "Enhancement of biodiversity" ^{/06/} , has cross-verified all the 38 plant species found in this monitoring period, which found to be increased from 22 species. VVB has also cross-verified the statistical calculation and accounted the richness, Shannon-Weiner, Simpson and Pielou of the project.	+ (Positive)
	SDG 8: Decent	Total number of jobs	Based on the review of GS MR ^{/01/} , supporting documents ^{/05/} , on-site	+ (Positive)





	Work and Economic Growth	provided by this project's targeted SDG is 11.	<p>inspection/ interviews^{i-xii/} employment agreements^{/11/} along with electronic payments of all the 11 forest rangers^{/11/}, VVB verifies that PD has effectively provided 11 jobs to the local residents which marks an increase in the value which was estimated target of 10. VVB based on their own research through the situation of minimum wage standards in all provinces, autonomous regions, and municipalities directly under the central government in China (as of October 1, 2024)² confirms that for Inner Mongolia, the monthly minimum wage standard is 1850 RMB, and the minimum hourly wage standard is 19.5 RMB. The forest rangers were all part-time workers. The subsidy standard for forest rangers is 14400 yuan per person, which is generally higher than the salary calculated by area in the contract. "02-Employment agreements of forest rangers"^{/11/}.</p> <p>Therefore, SDG 8 from the project activity is confirmed by the VVB.</p> <p>Hence, rating of this indicator as positive is correct</p>
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3.2 Location of project

Means of validation	DR, OSV, I
Findings	--
Conclusion	CC IPL, based on review of MR ^{01/} , supporting documents ^{/05/} and further during on-site inspection and interviews ^{i-xiii/} , confirms that the project has been implemented in the south of Zhaogensumogacha and in the north of

² https://www.mohrss.gov.cn/SYrlzyhshbzb/laodongguanxi_/fwyd/202410/t20241012_527228.html



Nugusitaigacha, Horqin Left Rear Banner of Tongliao City, Inner Mongolia Autonomous Region, China.

VVB, based on the review of the Remote Sensing GIS^{13/}, KML shapefiles^{13/} and during on-site inspection, confirms that the forest and non-forest spatial assessment was successfully carried out following the steps defined in Annex C of the Land Use and Forestry Activity Requirements v 1.2.1.

VVB, based on the review of the report “*Eligible planting area assessment.pdf*”^{17/}, confirms that the PD has detailed the fulfilment of the mentioned requirements, defining the required information adjusted to what is applicable for the project, thus fulfilling the requirements in section 1.1.6 (paragraph, i - viii) in a satisfactory manner.

The verification of the satellite imagery data set provided evidence that Images have a low cloud coverage and the project area cover no area under clouds/shadows.

a) Forest and non-forest Report

VVB has conducted the assessment of the forest and non-forest spatial following the steps defined in Annex C of the Land Use and Forestry Activity Requirements v 1.2.1.

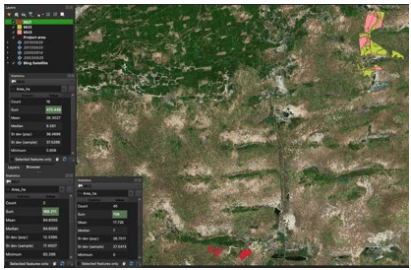
VVB based on the review of the report “*Eligible planting area assessment.pdf*”^{15/} detailed the fulfilment of the mentioned requirements, defining the required information adjusted to what is applicable for the project, thus fulfilling the requirements in section 1.1.6 (paragraph, i - viii) in a satisfactory manner.

The verification of the satellite imagery data set provided evidence that Images have low cloud coverage, and the project area cover no area under clouds/shadows.

b) Area of MUs verification results

The verification of area for each MUs was conducted based on recalculating the area of corresponding shapefiles for each MU; the results of area calculated vs area presented in PD and Eligible planting area assessment.pdf were found to be consistent:

Modelling units	Area (hectare) from PD & FnF assessment
MU1	190.00
MU2	708.44
MU3	472.52

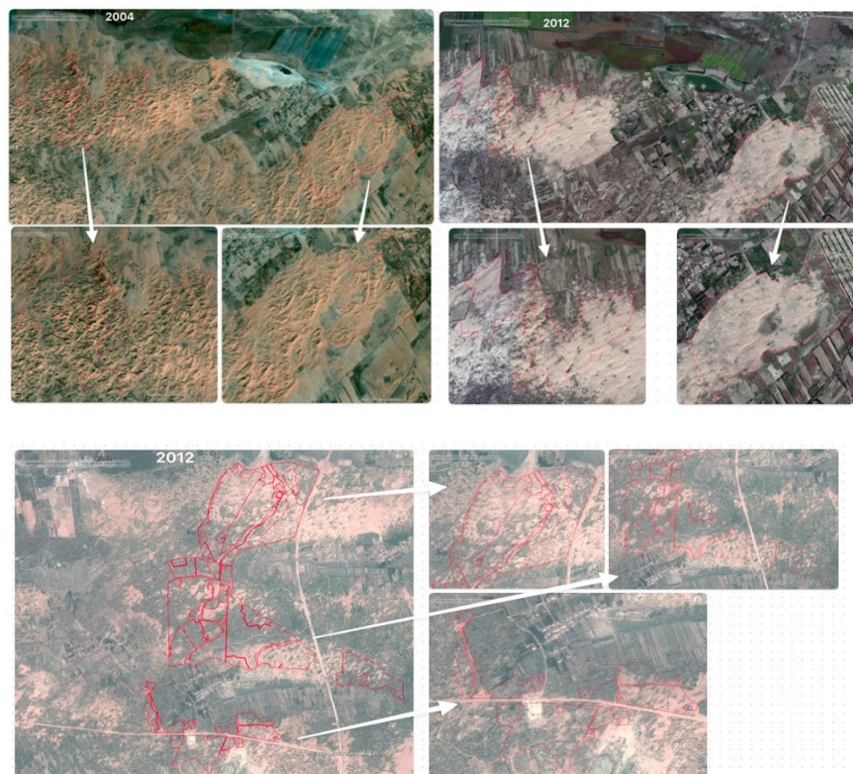


c) Prior conditions started project date



Based in the review of Eligible planting area assessment.pdf report^{15/}, section A.1.1 of A.1-Tongliao_AR_GS_V01-Project-Design-Documents-20240430-clean, GIS and Satellite imagery provided, and after verifying this area in Google Earth imagery sequences, VVB confirms that it has been evidenced that the project activity **do not disturb the native ecosystems**, furthermore the eligible area are in compliance with criteria of section 2 and 3 of GS4GG Land Use & Forests Activity Requirements (Version 1.2.1).

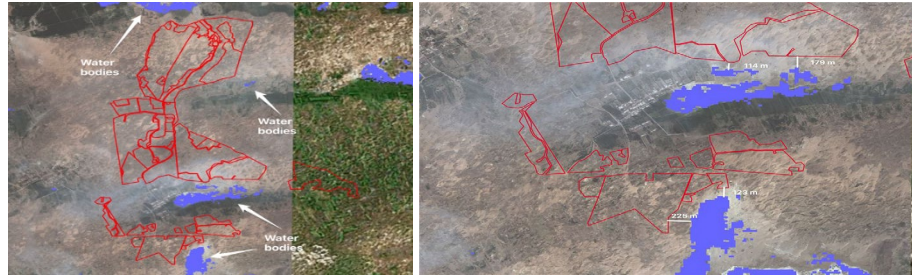
According to the Google Earth imagery available for this area prior the project started date only area available for the period 2004 to 2012 but based in the type of vegetation and land use identifiable in this imagery there the most frequent use found is non-forestland and there another area with crops lands, and small areas of forest outside of the project area.



The figure above shows that the project area does not disturb the native ecosystem; the first figure shows the LULC (non-forestland crops area are the most predominant use for this sites) conditions for this area of the project from 2004 to 2012 and the second figure the LULC for 2012 according to the availability of images from Google Earth.

d) Wetland analysis

In the water analysis verification conducted based on the shapefiles of project activity, the result of this assessment is that the project does not contend within water bodies, and the permanent water bodies and pixels derived from [Global Surface Water](#) data set area far from 15 meters of project activity. The figure below is such evidence about it.



Through this project, a total of 1,370.96 hectares of area owned by local villagers is under plantation of *Pinus sylvestris* and *Poplar* spp. This is further confirmed by the review of supporting documents provided by the PD. Furthermore, VVB confirms that the KML, GPS coordinates and shapefiles are in compliance with GS standard requirement, for each site sampled has been checked and verified from the data sheet.

3.3 Description of implemented project

Means of validation	DR, OSV, I
Findings	--
Conclusion	<p>Based on the review of GS MR^{01/}, supporting documents and further during the on-site inspection/interviews^{/i-xii/}, the project stratification is done on the basis of project area. Three modelling units are stratified with different unit of areas i.e. MU1: 190.00, MU2: 708.44 and MU3: 472.52</p> <p>VVB during the on-site inspection has visited the project area and has interviewed the relevant personnels^{/i-xiii/} involved in the management and plantation operations. VVB, in the on-site inspection, has verified that area belongs to the local collectives and subsequently during the on-site inspection^{/i-xiii/} VVB has visited the nursery and has interviewed^{/i-xiii/} the relevant personnels involved in the nursery management and operation confirm that saplings are sourced from the local community groups.</p> <p>VVB has additionally reviewed the <i>GS LUF Risks and Capacities assessment tool</i> and associated evidence^{/18/} and other supporting documentation^{/16/17/} related to annual activities encompassing capacity-building initiatives, monitoring protocols, and qualifications in forestry, operations, finance, legal aspects, as well as the technical qualifications of workers involved in implementation. The assessment also encompasses technical equipment, financial safeguards, and measures taken to mitigate risks associated with drought, flood, hail, snow, heavy rains, hurricanes, domestic and wild threats, diseases, frost, heat, irregular resettlement, or illicit crop production. VVB based on the review of "PDDCL15-201-LUF-G-RC-T of Tongliao-2nd"^{/25/} confirms that in line with the Risks & Capacities Guideline for 'Land Use & Forest' requirements, for the score between 0 – 6 the mitigation measures are not mandatory. Since, for the risk category 1.7 the selected score is 1 therefore no mitigation measures are required for the risk.</p> <p>For the risk category 1.9 the selected score is 2, even though no mitigation measures are required for this risk PD has provided the measures as the "trees species selected are <i>Populus simonii</i> Carrière and <i>Pinus sylvestris</i> L. var. <i>mongholica</i> Litv which can survive in sandy areas as well". Apropos to this requirement, PD has provided the Annual Reports for 2016-2020, 2021 and 2022^{/04/}. VVB has conducted a review of the annual report of 2022^{/04/} and</p>



confirms that the information is consistent with GS4GG MR & ex-post carbon calculation sheet.

VVB has additionally reviewed the other supporting documentation^{14/} related to proof of agreement between the project implementor and forest officials to confirms the plantation activities of the different area project areas.

Project Stratification

The modelling units or stratum has been developed for project stratification. VVB affirms that PD has meticulously gathered data and parameters for the project area of 1,370.96 hectares by using the remote sensing dataset. Landsat level-1 terrain Precision Correction, GCPs and digital elevation model (DEM) has been used to correct terrain displacement. Images with low cloud coverage has been selected for forest, crop/grass, water body and other non-forest data/shapefiles. VVB has reviewed the shapefiles/kml files^{13/} and during the on-site inspection^{1-xii/} has visited the 4 MUs namely:

Sample Plot No.	Co-ordinates	No of trees	VVB Assessment
MU1-2	122.35747549, 43.42022507	36	<p>Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Pinus sylvestris</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p>



				<p>In addition, interviews with local villagers^{/i-xiii/} have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of many wild animals and birds that were not seen in the area for many years prior to the project.</p>
	MU2-1	122.370685	36	<p>Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Pinus sylvestris</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{/13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews with local villagers^{/i-xiii/} have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of</p>



				many wild animals and birds that were not seen in the area for many years prior to the project.
	MU3- 4	122.37110, 43.45093	40	<p>Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Poplar</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews with local villagers^{i-xiii/} have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of many wild animals and birds that were not seen in the area for many years prior to the project.</p>
	MU3- 5	122.37758747, 43.45602554	46	Based on the on-site inspection, VVB confirms that the selected plot is comprised



				<p>of <i>Poplar</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{/13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews with local villagers^{/i-xiii/} have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of many wild animals and birds that were not seen in the area for many years prior to the project.</p>
<p>VVB conducted a cross-verification of data and parameters for approximately 4 Selected Permanent Sampling Plots within the project areas. This involved measuring the DBH and height of each tree. Consequently, VVB also confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected.</p>				

3.4 Forward Action Requests

Means of validation	DR, OSV, I
Findings	
Conclusion	<p>As per the GS MR^{01/}, One FAR were raised during the previous Verification which are as follows:</p> <p>FAR ID 01: The reviewer notes that the GSF Project Design Document and Monitoring Report templates do not appear to have been completed by the Project Proponent. However, it is their understanding that these document will only have to be completed following formal GSF approval of the project’s transition to GS4GG. The Project Proponent will need to produce a completed Monitoring Report using the required template prior to the next performance certification audit. While the safeguarding principles assessment within the transition document is considered to be sufficient for the purposes of the project’s transition to GS4GG, the safeguarding principles assessment will need to be adopted into the project’s PDD and monitoring report following the transition process and prior to the next performance certification audit.</p> <p>VVB ASSESSMENT: Based on the review of PDD and Monitoring report, VVB has found that both the documents are provided in the latest version as per the template required:</p> <ol style="list-style-type: none"> I. A.1-Tongliao_AR_GS_V01-Project-Design-Document-20240806-track, Version 1.5, Dated 29/06/2023 II. L.1-Tongliao_AR_GS_V01-Monitoring-Report-20240806-track, Version 1.1, Dated 14/10/2020 <p>Based on the review of Appendix 1 of PDD, the safeguarding principles assessment has been updated with response to the principles in the provided PDD^{01/} and MR^{01/} following the transition process.</p>

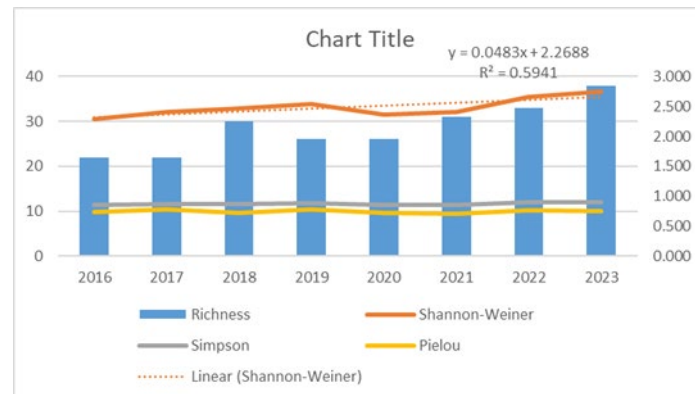
3.5 Post-Design Certification changes

Means of validation	DR, OSV, I
Findings	
Conclusion	<p>As per GS MR^{01/}, the Post-Design Certification Changes are as follows:</p> <ol style="list-style-type: none"> 1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology and standardized baseline: Not applicable. 2. Corrections: Not applicable. 3. Changes to start date of crediting period: Not applicable. 4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline: Based on the section 4.6.1 of the document “<i>Design Change Requirements v 1.1</i>”: The project developer shall assess any necessary revisions in the SDG Impact and Safeguarding Principles assessment following the design changes, and incorporate those changes. Therefore, the SDG Impact has been revised in according with the newest SDG TOOL. According to Section 4.1.16 in Principles & Requirements, Option 1 was used to evaluate the SDG impact in first monitoring period (11/04/2014 to 31/12/2020) and the SDG13, SDG15, and SDG 16



were identified. From 13 March 2022, the SDG Impact Tools are a mandatory part of the project development cycle, and then Option 2 was used in second period time (01/01/2021 to 31/12/2023) to demonstrate SDG impacts of the project and the SDG13, SDG15, and SDG 8 were identified according to latest SDG Impact Tools. The monitoring indicators has been changed from the SDG 16 to SDG 8 “Total number of jobs” VVB, based on the review of the revised PDD^{/01/}, contractual agreements of the employees^{/09/} and also through on-site inspection/interviews^{/i-xiii/} along with electronic payments of all the 11 forest rangers^{/09/}, VVB confirms that the SDGs are changed for the current monitoring period as per the latest SDG impact tool (changed from the SDG 16 to SDG 8 “Total number of jobs”), accordingly the “g. Sustainable development criteria “in APPENDIX 4 - DESIGN CHANGES of PDD has been updated according to the section 4.6.1 of the document GS4GG Design Change Requirements v 1.).

Based on the review of GS MR^{/01/}, VVB confirms that there are 38 plant species in this monitoring period, which found to be increased from 22 species, and it is also clarified that this SDG 15 only involves the tracking of plant and animal species are present at the project site not their numbers. VVB, based on the review of the excel sheet “*Enhancement of biodiversity*”^{/06/11/}, confirms that PD has provided the list and calculation of all the 38 plant species are found in this monitoring period, which found to be increased from 22 species. PD has also statically counted and accounted the richness, Shannon-Weiner, Simpson and Pielou of the project.



VVB based on review of revised ER spread sheet^{/03/} and PDD^{/01/}, confirms that the changes are deemed appropriate and does not have an impact on the Sustainable Development Assessment. Since the proposed corrections relates to the project design changes, design change approval procedure is applicable for this proposed design change as per the para 8.1.1 of Design Change Requirements version 1.1^{/B01/}. Based on the review of the revised PDD, VVB found that the corrections are referred as permanent changes. Therefore, VVB confirms that these corrections fall under Section 8 of the Design Change Requirements version 1.1, titled “Indicative List of Design Changes That Can Be Submitted with Issuance Track”.

5. Changes to project design of approved project
Not applicable

	Based on the review of GS MR ^{02/} , supporting documents ^{11/} and on-site interviews ^{i-xiii/} , VVB confirms the proposed to design changes to the project. Hence, it is valid and appropriate.
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3.6 Description of monitoring system applied by the project

a) Monitoring of Plantation Establishment and Management

Means of validation	DR, OSV
Findings	
Conclusion	<p>Based on the review of supporting documents and on-site inspection^{i-xiii/}, VVB confirms through reforestation with native or naturalised tree species: <i>Pinus sylvestris</i> and <i>Poplar</i> spp.</p> <p>The primary tree species in the area are poplar and <i>Pinus sylvestris</i>, with poplar covering 662.56 hectares and <i>Pinus sylvestris</i> occupying 708.44 hectares. Additionally, bushes have been planted to stabilize the sands. Fences and sand/grass grids are also utilized to control desertification and reduce sand dune mobility.</p> <p>During the on-site inspection, VVB conducted interviews^{i-xiii/} with all personnel from Shanghai Roots & Shoots, the Forest Department, and Experts of Climate Bridge (Shanghai) Ltd., including the Monitoring Manager and staff, and confirmed that activities such as planting and replanting, weeding, pruning, intermediate cutting, pest control, and sand dune stabilization are carried out for plantation establishment.</p> <p>VVB, based on the on-site inspection and through the interviews with the relevant stakeholder, confirms that the main focus is on ensuring the survival of the trees. To achieve an optimal survival rate, several measures are implemented:</p> <ul style="list-style-type: none"> • Irrigating the trees to improve survival rates. • Pruning tall trees with numerous branches, based on the forestry manager’s judgement. • Replanting trees according to the forest’s survival situation. • Weeding as necessary to minimize the impact of weeds on young forests. • Setting up fences and a forest ranger system to mitigate human impact on forest survival. • Constructing grass grids to prevent sand shifting and protect young seedlings. • Inter-planting bushes and other vegetation among the trees. • Regularly conducting pest control and fire control operations. • Inventory work primarily involves random surveys to assess survival rates, maintenance rates, tree height, basal diameter, and diameter at breast height (DBH). <p>Tree plantation was divided into stands on the basis of the crop age: Year 1-3: Young Stand Year 4-10: Middle Stand Year 16-30: Mature Stand</p>

	<p>VVB during the on-site inspection visited 4 sample plots to confirm the plantation establishment and management. VVB conducted a cross-verification of data and parameters for approximately 4 Permanent Sample Plots. VVB has conducted a thorough verification by cross-referencing all the trees in the PSP for data and parameters monitoring and thus confirms that all the data's mentioned in the ex-post carbon calculation sheet deems to be appropriate and valid. This involved measuring the DBH and height of each tree. Consequently, VVB also confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected.</p>
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b) Training

Means of validation	DR, OSV
Findings	CAR 06 has been raised and satisfactorily closed
Conclusion	<p>VVB, following the on-site inspection interviews^{i-xiii/} and based on the review of the supporting documents^{17/}, affirms that trainings are provided to the village collectives to commence the monitoring and measurement program for successful establishment of plantation and project implementation. The training sessions will encompass both theoretical and practical components, providing a comprehensive understanding of tree measurement techniques, data tallying procedures, and interview techniques. This approach ensures that forest rangers, local collectives are well-versed in the methodologies essential for the successful implementation of the monitoring and measurement program. VVB, during the on-site inspection have verified the training records of the villagers. However, a finding has been raised to provide the scanned copies of the remaining training records for the same and PD has sufficiently provided all the relevant training records^{21/} documents for this monitoring period, for the closure of the finding.</p> <p>Based on the review of training and education document^{t/21/}, it has been found that trainings have been conducted on the dates: 10/10/2021, 07/07/2022, 19/09/2023 on the investigation and handling of illegal cases such as forest fire prevention, wildlife theft, interpretation of laws and regulations, duties and authority of forest rangers and prohibition of grazing in forest areas and training course on monitoring and survey of Pine Wood nematodes disease in Horqin Left Rear Banner.</p> <p>Based on the review of GS MR^{01/}, supporting documents^{05/}, on-site inspection/ interviews^{i-xiii/} employment agreements^{11/} along with electronic payments of all the 11 forest rangers^{11/}, VVB verifies that PD has effectively provided 11 jobs to the local residents which marks an increase in the value which was estimated target of 10</p>

c) Sampling Design

Means of validation	DR, OSV
Findings	--
Conclusion	Based on the review of GS MR ^{01/} , supporting documents ^{17/} and on-site inspection, VVB confirms that reforestation with native or naturalised tree



species: *Pinus sylvestris* and *Poplar* spp. has been carried out in the project area.

Based on the on-site inspection and review of the supporting documents^{/17/} and GS MR^{/01/}, VVB has confirmed the AR-TOOL 3” Calculation of the number of sample plots for measurements within A/R CDM project activities” has been used for the sampling approach of a small fraction (when the area is less than 5% of the project area). The equation has been used as for number of sample plots:

$$n = \left(\frac{t_{VAL}}{E}\right)^2 \times (\sum_i w_i \times s_i)^2$$

Number of sample plots of strata were calculated by using:

$$n = \left(\frac{t_{VAL}}{E}\right)^2 \times (\sum_i w_i \times s_i)^2$$

Total project area(ha)	Modelling units (ha)		
	MU 1	MU 2	MU 3
1,370.96	190.00	708.44	472.52
Total Sampling Plots	MU 1	MU 2	MU 3
13	4	4	5

The performance certification team of the VVB has applied a sampling approach for on-site inspection as part of Performance Certification of the project area, in accordance with the paragraph 38 of the Standard: Sampling and surveys for (version 09.0). Acceptance sampling has been chosen by the performance certification team and, accordingly, steps listed in paragraph 39 of the sampling standard shall be followed.

Sample plots established and monitored are permanent as the permanent plots provide efficient verification and are more economic than the temporary ones. Furthermore, the permanent sample plots are selected as they are statistically more efficient in estimating the changes in forest carbon stocks. VVB team has opted for 15% margin of error and 85% confidence level in determining the VVB’s sample size. The total permanent sample selected by PP i.e., 13 sample plots. Accordingly, VVB team has visited 04 samples from the designated project region included under the project activity for the reported monitoring period with pro-rata sample size calculated based on sample size taken by the PD (i.e., weightage of sample size for a project area taken by PD) multiplied by the VVB sample size.

VVB has conducted a cross-verification of sampling approach used by the and confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected and no change in the stratification was found for the 2nd monitoring period.

After reviewing the Remote Sensing GIS^{/13/} and KML shapefiles^{/13/}, VVB has confirmed the presence of 60 planting plots in the project. These plots have been numbered in the KML file, and the location of fixed sample plots has been determined through random sampling of the planting plots. Using the Excel random function, the planting plots for each sample plot in each strata were selected. The center coordinates of the sample plots within the specific planting plots were then located using ArcGIS.

	<p>In addition to the on-site inspection, VVB conducted interviews^{/i-xii/} with the personnel responsible for the monitoring activities to gain a better understanding of the procedures and to validate the accuracy of the reported data. VVB also reviewed the training records^{/17/} of the personnel to ensure that they were adequately trained in conducting the monitoring activities.</p> <p>During the on-site inspection, VVB thoroughly re-measured and cross-verified a total of 4 randomly selected inventory sampling plots. VVB also ensured that the operational and data collection procedures aligned with the monitoring plan, and verified the accuracy of information flows for generating, aggregating, and reporting the monitoring parameters.</p> <p>Furthermore, VVB has verified the monitoring equipment in order to confirm compliance with project design requirements. VVB also performed a consistency check to verify the accuracy and consistency of previous measurements and reported stand growth.</p>
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d) Monitoring Organisation and Responsibilities

Means of validation	DR, OSV I
Findings	--
Conclusion	<p>“Afforestation Project in Tongliao, Inner Mongolia” are promoted by Climate Bridge (Shanghai) Ltd. who act as carbon Project Developer of the project and Shanghai Roots & Shoots are the one who have designed the Standard Operation Process & Forest Inventory Guide to work together and to ensure that the forest inventory is tracked in a standard way and confirmed and agreed upon between all stakeholders. The activities started at the starting of 2014 and is aimed towards planting of up to 1,370.96 hectare of area are eligible in accordance with requirements of Gold Standard.</p> <p>VVB, based on the on-site inspection and supporting document^{/17/06/}, confirms that both Climate Bridge (Shanghai) Ltd. and Shanghai Roots & Shoots have implemented training programs for their staff. These programs prioritize training staff on proper procedures for data collection, record-keeping, and file management. To aid staff in this process, a detailed document checklist has been put in place to ensure the thorough gathering of all required supporting evidence.</p> <p>In addition, for individual villagers, both digital and hard copy documents are meticulously organized and filed according to their respective project areas. Furthermore, other documentation is filed based on the village or project area.</p> <p>During the on-site inspection, VVB conducted interviews^{/i-xiii/} with all personnel from Shanghai Roots & Shoots, the Forest Department, and Experts of Climate Bridge (Shanghai) Ltd., including the Monitoring Manager and staff. It was confirmed that precautionary measures have been taken and Climate Bridge (Shanghai) Ltd. maintains digital records of all project information to ensure data accuracy. Original copies of agreements are securely held at the Climate Bridge office, with digital copies uploaded to a cloud-based platform for accessibility. This comprehensive documentation and filing system ensure the integrity and accessibility of the collected data.</p> <p>The monitoring team conducts annual biodiversity checks in the project area and gathers feedback from local stakeholders through questionnaires to</p>



	<p>assess the local ecosystem and biodiversity. Additionally, cameras have been installed to monitor the types and numbers of animals.</p> <p>VVB, based on the review of the SDG Indicators survey reports^{11/}, confirms that a questionnaire has been suggested as a cost-effective way to monitor visible changes in the local ecosystem. Similarly, stakeholders have recommended using a questionnaire to gauge human and institutional capacity, providing a cost-effective means of reflecting their feelings about the local community in relation to the project.</p>
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3.7 Data and parameters

a) **Data and parameters fixed ex ante or at renewal of crediting period**

Means of validation	DR, OSV, I														
Findings	CL has been raised and satisfactorily closed.														
Conclusion	In line with section D.1 of the GS MR ^{01/} , VVB confirms that the PD has appropriately defined Data and parameters fixed ex-ante or at renewal of crediting period.														
	<p>Data and parameters fixed ex ante</p> <p>1. Ex-ante growth rates</p> <table border="1"> <thead> <tr> <th>Data/Parameter</th> <th>Values Applied</th> <th>Reference</th> <th>VVB Assessment</th> </tr> </thead> <tbody> <tr> <td>$B_{tree_BSL,t}$ $B_{non-tree_BSL,t}$</td> <td>0.7988 0.0322</td> <td>LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3)</td> <td>VVB based on review of GS MR^{02/} in compliance with the GS A/R requirements, confirms that the default value for $B_{tree_BSL,t}$ $B_{non-tree_BSL,t}$ for tree biomass proposed by LI Yu-qiang 2005^{08/}, as valid and appropriate</td> </tr> <tr> <td>R_{tree_BSL}</td> <td>0.72</td> <td>LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3).</td> <td>Based on the review of section D.1. of the GS MR^{02/}, the values for Root-to-Shoot ratio deems to be appropriate and valid by VVB. VVB have also cross-checked the values with LI Yu-qiang 2005^{08/}. Hence, VVB confirms it to be appropriate.</td> </tr> </tbody> </table>			Data/Parameter	Values Applied	Reference	VVB Assessment	$B_{tree_BSL,t}$ $B_{non-tree_BSL,t}$	0.7988 0.0322	LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3)	VVB based on review of GS MR ^{02/} in compliance with the GS A/R requirements, confirms that the default value for $B_{tree_BSL,t}$ $B_{non-tree_BSL,t}$ for tree biomass proposed by LI Yu-qiang 2005 ^{08/} , as valid and appropriate	R_{tree_BSL}	0.72	LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3).	Based on the review of section D.1. of the GS MR ^{02/} , the values for Root-to-Shoot ratio deems to be appropriate and valid by VVB. VVB have also cross-checked the values with LI Yu-qiang 2005 ^{08/} . Hence, VVB confirms it to be appropriate.
Data/Parameter	Values Applied	Reference	VVB Assessment												
$B_{tree_BSL,t}$ $B_{non-tree_BSL,t}$	0.7988 0.0322	LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3)	VVB based on review of GS MR ^{02/} in compliance with the GS A/R requirements, confirms that the default value for $B_{tree_BSL,t}$ $B_{non-tree_BSL,t}$ for tree biomass proposed by LI Yu-qiang 2005 ^{08/} , as valid and appropriate												
R_{tree_BSL}	0.72	LI Yu-qiang, etc. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 (3).	Based on the review of section D.1. of the GS MR ^{02/} , the values for Root-to-Shoot ratio deems to be appropriate and valid by VVB. VVB have also cross-checked the values with LI Yu-qiang 2005 ^{08/} . Hence, VVB confirms it to be appropriate.												



A_{BSL,t}	1,370.96	Remote Sensing data, field measurement	<p>VVB, based on review of MR^{01/}, supporting documents^{05/} and further during on-site inspection and interviews^{/i-xii/} confirms that the project has been implemented in the south of Zhaogensumogacha and in the north of Nugusitaigacha, Horqin Left Rear Banner of Tongliao City, Inner Mongolia Autonomous Region, China..</p> <p>VVB, based on the review of the Remote Sensing GIS^{13/}, KML shapefiles^{13/} and during on-site inspection, confirms that the forest and non-forest spatial assessment was successfully carried out following the steps defined in Annex C of the Land Use and Forestry Activity Requirements v 1.2.1.</p>
CF_{tree} CF_{non-tree}	0.5 0.4	Methodology A/R V2.1	VVB based on review of GS MR ^{02/} in compliance with the GS A/R requirements, confirms that the default value for carbon fraction for tree biomass proposed by GS A/R requirement, as valid and appropriate.
V_{tree_Proj,t}	Carbon calculation sheet	Lv Wen. Populus Simonii in North China, 2002	<p>Based on the review of Section D.1 of the revised GS MR^{02/}, PDD and carbon calculation sheet^{03/} and through on-site inspections, VVB has assessed that the Section D of MR has been updated with the source of data for the Data and Parameters fixed ex-ante and for Data and Parameters to be monitored along with QA/QC for selected parameters.</p> <p>Furthermore, VVB, based on the review of the revised Ex-post carbon calculation sheet, confirms that PD has used the volumetric equation of “<i>Qinghai_Data source of allometric equations</i>” for the actual carbon calculation of Populus species i.e., $W=0.045*(DBH^2H)^{0.906}$ and for Pine species, PD has used the volumetric equation from “<i>Study on the Volume Table of Scotch Pine in Saihanba Aera</i>” i.e., $V=0.00006938D^{1.763}H^{1.037}$. VVB found that the source of the volumetric equations and review of literatures are deemed to be appropriate and acceptable.</p>
Wood density	0.3	Methodology A/R V2	VVB based on review of GS MR ^{02/} in compliance with the GS A/R



			requirements, confirms that the default value for wood density for tree biomass proposed by GS A/R requirement, as valid and appropriate.
BEF tree	1.1	Methodology A/R V2	VVB based on review of GS MR ^{/02/} in compliance with the GS A/R requirements, confirms that the default value for BEF for tree biomass proposed by GS A/R requirement, as valid and appropriate.

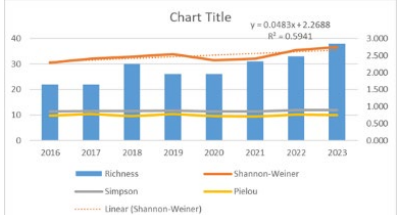
b) Data and parameters monitored

Means of validation	DR, OSV, I												
Findings	CL 03 has been raised.												
Conclusion	Data and parameters monitored		VVB Assessment										
	1. Ai; Aplot,i		Based on the review of GS MR ^{/01/} , Remote Sensing GIS ^{/13/} and KML shapefiles ^{/13/} and further doing on-site inspection/interviews ^{/i-xiii/} , it is ascertained by the VVB that PD has appropriately measured the trees in project area of 1,370.96 hectares. VVB affirms that PD has meticulously gathered data and parameters for all trees using range pole, vernier calliper. Each tree is assigned with a number. The recorded data encompasses Diameter at Breast Height (DBH) and height for each tree throughout the monitoring period. Stratification is based on area. VVB has reviewed the raw data sheets along with the tree count raw data sheet ^{/06/} provided and confirms the accuracy and consistency of the information provided. VVB during the on-site inspection has visited the 4 MUs.										
	<table border="1"> <thead> <tr> <th></th> <th>MU1 (ha)</th> <th>MU2 (ha)</th> <th>MU3 (ha)</th> </tr> </thead> <tbody> <tr> <td>Ai</td> <td>190</td> <td>708.44</td> <td>472.52</td> </tr> <tr> <td>Aplot,i</td> <td>0.04</td> <td>0.04</td> <td>0.04</td> </tr> </tbody> </table>			MU1 (ha)	MU2 (ha)	MU3 (ha)	Ai	190	708.44	472.52	Aplot,i	0.04	0.04
	MU1 (ha)	MU2 (ha)	MU3 (ha)										
Ai	190	708.44	472.52										
Aplot,i	0.04	0.04	0.04										
2. Hl _{p,j,i} :Height of tree l of species j in sample plot p of stratum i 3. DBHl _{p,j,i} ; Diameter at breast height of trees l species j, in plot p , stratum i			Based on the review of GS MR ^{/01/} , Ex-post calculation sheet, supporting documents ^{/03/06/} and further doing on-site inspection/interviews ^{/i-xiii/} , it is confirmed by the VVB that the DBH and height has been verified through the diameter tape and Nikon Rangefinder. Furthermore, VVB has also interviewed ^{/i-xiii/} the MRV personnel involved in such measurement from PD's side and found them competent to perform such standardized										



		measurements for diameters and height.
	4. Ni,j: Trees/ha	Based on the review of GS MR ^{/01/} , ex-post calculation sheet ^{/03/} and Standard operating procedures (SOPs) prescribed under national forest inventory, SOPs from published handbooks, and from the IPCC GPG LULUCF 2003 ^{/03/} , VVB confirms that the values applied for number of trees j , strata j are appropriate.
	5. Total number of jobs	Based on the review of the GS MR ^{/01/} ,PDD, supporting documents ^{/05/} ,on-site inspection/interviews ^{/i-xii/} employment agreements ^{/11/} along with electronic payments of all the 11 forest rangers ^{/11/} VVB verifies that PD has effectively managed to provide 11 jobs during the current monitoring period which marks a significant increase in the actual monitoring value (estimated as "10 jobs") of SDG.8 leading to a substantial enhancement in the well-being of villagers.
6. Trends in species diversity	<p>VVB has done assessment based on the review of GS MR^{/01/}, supporting documents^{/23/} and questionnaires which are as follows:</p> <ul style="list-style-type: none"> • Based on the review of Annual report from year 2016 to 2020 and annual report 2021, and enhanced biodiversity data^{/06/} VVB has assessed that the species number has been increased in year 2018. As per annual report from 2016 to 2020: • In year 2014, 22 species of plants were found in the project area • In year 2018, 30 species of plants were found in the project area • In year 2019, 26 species of plants were found in the project area. • In year 2020, 25 species of plants were found in the project area. <p>As per annual report year 2021:</p>	



		<ul style="list-style-type: none"> In year 2021, 26 species of plants were found in the project area. <p>In reference with web search Dataset of plant images taken by drones in Inner Mongolia in 2022-2023—Plant Science Data Center (plantplus.cn), it has been found that plant of 40 species, 32 genera, 19 families has been found in the region of Mongolia. VVB, during the on-site inspection^{i-xii/} and through the review of the excel sheet “Enhancement of biodiversity”^{/06/}, has cross-verified all the plant species found in this monitoring period, which found to be increased from 22 species. VVB has also cross-verified the statically calculation and accounted the richness, Shannon-Weiner, Simpson and Pielou of the project.</p> 
	<p>7. Area of fire, diseases and pests</p>	<p>Based on the review of GS MR^{/01/}, supporting documents^{/07/}, Tongliao Public welfare Forest Ranger, Management Log^{/24/} and on-site inspection/ interviews^{i-xiii/}, VVB has assessed that situation such as fire, disaster, forest pest and diseases in the area must be reported in time manner and appropriate measures must be taken within the scope of capabilities. Prohibition on burning of weeds on edges, candles, paper, smoking, wood chopping and burning, avoidance of fire activities such as camping, tourism are the 10 don'ts for forest fire preventions which have been found listed in the management log^{/24/}.</p>
	<p>8. Pesticide and Fertilizer consumption</p>	<p>Based on the review of GS MR^{/01/}, supporting documents^{/17/} and on-site inspection/ interviews^{i-xiii/}, VVB verifies that PD has not made any use of Pesticides and</p>

		<p>Fertilizers for tree plantation nutrient enrichment and protection. As assessed above, the project does not involve usage of chemical fertilizer and synthetic pesticides. Thus, VVB confirms that there are no potential negative impacts attributable due to the project in-particular due to use of chemical fertilizers and synthetic pesticides.</p>
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c) Comparison of monitored parameters with last monitoring period

Means of validation	DR, OSV, I
Findings	CL 07 has been raised and satisfactorily closed.
Conclusion	<p>“COMMUNITY SERVICES ACTIVITY” is a special type of project activities, including electricity and energy, water and sanitation, waste management, housing, etc. This project has a special requirement “COMMUNITY SERVICES ACTIVITY REQUIREMENTS” in GS. Tongliao project is an afforestation project, and the project is non-Community Service Activities. Based on the review of Community Services Activity Requirements – Gold Standard for the Global Goals, VVB found that afforestation projects are not categorised as Community Service Activity under GS.</p>

3.8 Implementation of sampling plan

Means of validation	DR, OSV, I																			
Findings	--																			
Conclusion	<p>The VVB assessment of implementation of sampling plan in compliance with section D.4. of GS MR^{01/} is as follows:</p> <p>Strata: The stratification is based on the year of plantation and species involved in the project activity. A total area of 1,370.96 ha is engaged in plantation forestry.</p> <table border="1" data-bbox="563 1563 1289 1850"> <thead> <tr> <th rowspan="2">Total project area(ha)</th> <th colspan="3">Modelling units (ha)</th> </tr> <tr> <th>MU 1</th> <th>MU 2</th> <th>MU 3</th> </tr> </thead> <tbody> <tr> <td>1,370.96</td> <td>190.00</td> <td>708.44</td> <td>472.52</td> </tr> <tr> <th>Total Sampling Plots</th> <th>MU 1</th> <th>MU 2</th> <th>MU 3</th> </tr> <tr> <td>13</td> <td>4</td> <td>4</td> <td>5</td> </tr> </tbody> </table> <p>Sampling Method: Random sampling approach was set for planting plots – all trees at 1.3m from ground are marked for DBH. Ground diameter was measured for trees with DBH less than 3cm.</p>	Total project area(ha)	Modelling units (ha)			MU 1	MU 2	MU 3	1,370.96	190.00	708.44	472.52	Total Sampling Plots	MU 1	MU 2	MU 3	13	4	4	5
Total project area(ha)	Modelling units (ha)																			
	MU 1	MU 2	MU 3																	
1,370.96	190.00	708.44	472.52																	
Total Sampling Plots	MU 1	MU 2	MU 3																	
13	4	4	5																	



Field Measurements: Based on the review of GS MR^{/01/} supporting documents^{/06/} and further doing on-site inspection/interviews^{/i-xiii/}, it is ascertained by the VVB that PD has appropriately measured the number of trees. VVB affirms that PD has meticulously gathered data and parameters for all trees. Each tree is numbered and recorded for data encompasses Diameter at Breast Height (DBH) and height for each tree throughout the monitoring period. Stratification is based on area. VVB has reviewed the raw data sheets along with the tree count raw data sheet^{/06/} provided and confirms the accuracy and consistency of the information provided. VVB during the on-site inspection has visited the 4 MUs:

Sample Plot No.	Co-ordinates	No of trees	VVB Assessment
MU1-2	122.35747549, 43.42022507	36	<p>Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Pinus sylvestris</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{/13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews^{/i-xiii/} with local villagers have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the</p>



				presence of many wild animals and birds that were not seen in the area for many years prior to the project.
	MU2-1	122.370685	36	<p>Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Pinus sylvestris</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews^{i/-xii/} with local villagers have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of many wild animals and birds that were not seen in the area for many years prior to the project.</p>
	MU3- 4	122.37110, 43.45093	40	Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Poplar</i> species.



				<p>Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{/13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews^{/i-xii/} with local villagers have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of many wild animals and birds that were not seen in the area for many years prior to the project.</p>
	MU3- 5	122.37758747, 43.45602554	46	<p>Based on the on-site inspection, VVB confirms that the selected plot is comprised of <i>Poplar</i> species. Furthermore, VVB confirms that there is no performance shortfall in the project area, as all the trees are well maintained and managed. VVB's inspection revealed no evidence of pest infestations, diseases, or fire incidents in</p>



				<p>the project area. Additionally, the entire project area is surrounded by fences, providing protection for the trees from grazing animals. VVB, furthermore confirms that the villagers were trained for at least 3 times in a year for the maintenance of the project area.</p> <p>Through the review of remote sensing GIS data^{/13/}, VVB also confirmed that there was no evidence of burning, either currently or historically. During our inspection, VVB did not find any signs of biomass removal or decrease in tree biomass, or any burning activities. Therefore, VVB concludes that there is no scope for performance shortfall as per Section 1.3 of the GS4GG Shortfall of performance guideline.</p> <p>In addition, interviews^{/i-xiii/} with local villagers have revealed that due to the plantation practices, there has been an increase in biodiversity. Villagers have observed the presence of many wild animals and birds that were not seen in the area for many years prior to the project.</p>
<p>VVB conducted a cross-verification of data and parameters for 4 randomly selected Permanent Sample Plots. VVB has conducted a thorough verification by cross-referencing all the plots and thus confirms that all the data's mentioned in the ex-post carbon calculation sheet deems to be appropriate and valid. This involved measuring the DBH and height of each tree. Consequently, VVB also confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected.</p> <p>After reviewing the Remote Sensing GIS^{/13/} and KML shapefiles^{/13/}, VVB has confirmed the presence of 60 planting plots in the project. These plots have been numbered in the KML file, and the location of fixed sample plots has been determined through random sampling of the planting plots. Using the Excel random function, the planting plots for each sample plot in each strata were selected. The centre coordinates of the sample plots within the specific planting plots were then located using ArcGIS.</p> <p>During the on-site inspection, VVB thoroughly re-measured and cross-verified a total of 4 randomly selected inventory sampling plots. VVB also ensured that the operational and data collection procedures aligned with the monitoring</p>				



plan, and verified the accuracy of information flows for generating, aggregating, and reporting the monitoring parameters.

3.9 Calculation of SDG impacts

- a) **Calculation of baseline value or estimation of baseline situation of each SDG Impact**

Means of validation	DR, OSV, I	
Findings	--	
Conclusion	Based on the desk review of GS MR ^{01/} and on-site interviews/inspection ^{i-xiii/} , VVB has confirmed the assessment of SDG Impact as follows:	
	SDG Impact	VVB Assessment
	SDG 13, Climate Action: Baseline for grassland and cropland	Based on the review of GS MR ^{01/} , the data (like height and DBH) of plots with existing trees prior to the start of the plantations activities has been collected, which allowed to calculate an average baseline tree biomass per hectare. Furthermore, VVB confirms the baseline was determined by estimating the 'tree' and 'non-tree' biomass that is present in the eligible planting area just prior to the planting start. And the Baseline is deducted in the first year (t=1). According to the local literature LI Yu-qiang et al., 2005, ^{08/} the aboveground biomass of Sparse bushes is 0.7988 tC/tdm and the aboveground biomass of Sparse grasses is 0.0322 tC/tdm. The total baseline is 3,512 tCO ₂ . This is then deducted from the fixation values from trees.
	SDG 15, Life on Land	Based on the review of the KML files and Remote Sensing GIS shapefiles ^{13/} , Forest/Non-Forest Analysis Report ^{15/} and GS MR ^{01/} and also through interviewing the relevant stakeholders, VVB confirms that the planting area are mostly sandy land with very few species and no plants. Hence SDG 15 cannot be achieved in baseline estimation.
SDG 8: Decent Work and Economic Growth	Based on the review of the KML files and Remote Sensing GIS shapefiles ^{13/} , Forest/Non-Forest Analysis Report ^{15/} and GS MR ^{01/} and also through interviewing the relevant stakeholders, VVB has	

		<p>confirmed there was no forest to manage and protect, so there is no employment for forest rangers. Hence, the SDG 8 cannot be achieved in baseline situation.</p>
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b) Calculation of net benefits or direct calculation for each SDG Impact

Means of validation	DR, OSV, I	
Findings	CL 11, Table 2 have been raised and satisfactorily closed.	
Conclusion	Based on the desk review and on-site inspection, VVB has concluded the assessment of SDG Impact calculation as follows:	
	SDG 13: Climate Action	<p>Based on the review of the GS MR^{/01/} and on-site inspection^{/i-xii/}, VVB confirms that the project involves plantation of native or naturalised tree species such as <i>Pinus sylvestris</i> and <i>Poplar</i> spp. which overall has sequestered 4,977 tCO₂e (Tree Biomass) for this monitoring period.</p> <p>Based on the review of Remote Sensing GIS^{/13/}, KML shapefiles^{/13/}, Forest/ non-forest analysis report^{/15/} and through on-site inspection, VVB confirms the SDG 13 from the project.</p>
	SDG 15: Life on Land	<p>Based on the review of GS MR^{/01/}, supporting documents and “Enhancement of biodiversity” sheet^{/06/07/} and on-site inspection/ interviews^{/i-xii/}, VVB verifies that PD has effectively improved 38 plant species during the current monitoring period leading to a substantial enhancement in the well-being of villagers. VVB has cross-verified the photos captured by infrared cameras installed in the project area, confirming the presence of the anticipated species: <i>Phasianus colchicus</i>, <i>Capreolus pygargus</i>, <i>Vulpes vulpes</i>, and <i>Nyctereutes procyonoides</i>. Therefore, SDG 15 from the project activity is confirmed by the VVB. VVB has also visited the nursery plantation areas during the on-site inspection.</p>
	SDG 8: Decent Work and Economic Growth	<p>Based on the review of GS MR^{/01/}, supporting documents^{/05/}, on-site inspection/ interviews^{/i-xii/} employment agreements^{/11/} along with electronic payments of all the</p>

		11 forest rangers, ^{/11/} VVB verifies that PD has effectively provided 11 jobs to the local residents which marks an increase in the value which was estimated target of 10.
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c) Calculation of leakage

Means of validation	DR, OSV, I
Findings	CL 11, table 2 have been raised and satisfactorily closed.
Conclusion	Based on the review of the GS MR ^{/01/} , PDD ^{/01/} and carbon calculation sheet ^{/03/} and in line with the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology v2.1 ^{/B02/} , the leakage calculated by the PD is zero, which, based on the on-site inspection and interviews ^{/i-xiii/} , is deemed appropriate by the VVB. VVB has reviewed the baseline and leakage survey report ^{/15/} . VVB, further through on-site inspection ^{/i-xiii/} and interviews confirms that there is no shifting of any activities due to project implementation. Thus, leakage mentioned as zero is valid.

d) Leakage emissions

Means of validation	DR, OSV, I
Findings	CL 11, Table 2 have been raised and satisfactorily closed.
Conclusion	Based on the review of the GS MR ^{/01/} , PDD ^{/01/} and carbon calculation sheet ^{/03/} and in line with the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology v2.1 ^{/B02/} , the leakage calculated by the PD is zero, which, based on the on-site inspection and interviews ^{/i-xiii/} , is deemed appropriate by the VVB. VVB has reviewed the baseline and leakage survey report ^{/15/} . VVB, further through on-site inspection ^{/i-xiii/} and interviews confirms that there is no shifting of any activities due to project implementation. Thus, leakage mentioned as zero is valid

e) Calculation of net benefits or direct calculation for each SDG Impact up until 2023

Means of validation	DR, OSV, I				
Findings					
Conclusion	Based on review of GS MR ^{/01/} , VVB assessed the compliance of following:				
	Safeguards	Baseline estimate	Project estimate (as per PDD)	Net Benefit (as per MR)	VVB Assessment
	SDG- 13 Climate Action	0	4,977 tCO ₂ e	4,977 tCO ₂ e	Based on review of GS MR ^{/01/} , VVB confirms that value was appropriate.
SDG- 15 Trends in	22	38	16	VVB has done assessment based on the	



	<p>species diversity</p>				<p>review of GS MR^{/01/}, supporting documents^{/23/} and questionnaires which are as follows:</p> <ul style="list-style-type: none">• Based on the review of Annual report from year 2016 to 2020 and annual report 2021, and enhanced biodiversity data^{/06/} VVB has assessed that the species number has been increased in year 2018. As per annual report from 2016 to 2020:• In the year 2014, 22 species of plants were found in the project area• In the year 2018, 30 species of plants were found in the project area• In the year 2019, 26 species of plants were found in the project area.• In the year 2020, 25 species of plants were found in the project area.
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					<p>As per annual report year 2021:</p> <ul style="list-style-type: none"> In the year 2021, 26 species of plants were found in the project area. <p>In reference with web search Dataset of plant images taken by drones in Inner Mongolia in 2022-2023— Plant Science Data Center (plantplus.cn), it has been found that plant of 40 species, 32 genera, 19 families has been found in the region of Mongolia.</p>
	<p>SDG 8: Decent Work and Economic Growth</p>	0	11	11	<p>Based on the review of GS MR^{/01/}, supporting documents^{/05/}, on-site inspection/ interviews^{/i-xii/} employment agreements^{/11/} along with electronic payments of all the 11 forest rangers^{/11/}, VVB verifies that PD has effectively provided 11 jobs to the local residents which marks an increase in the value which was estimated target of 10.</p>



f) Comparison of actual SDG Impacts with estimates in approved PDD

Means of validation	DR, OSV, I		
Findings	CAR 7, Table 5		
Conclusion	Based on review of GS MR ^{02/} , VVB assessed the compliance of following:		
	Safeguards	Project estimate (as per PDD)	Net Benefit (as per MR)
	SDG- 13 Climate Action	6,004 tCO ₂ e Total: 10,096tCO ₂ e (4,092 for 1st MP plus 6,004 for 2 nd MP)	4,977 tCO ₂ e Total: 16,564tCO ₂ e (11,587 issued during 1st MP +4,977 to be issued during 2nd MP)
			<p>VVB Assessment</p> <p>Based on review of GS MR^{02/}, VVB confirms that value was appropriate. VVB has reviewed the ex-ante carbon calculation spreadsheet^{03/}, ex-post carbon calculation spreadsheet^{03/}, project management practices, and SOP^{18/} to ensure compliance with the applicable requirements. The ex-ante carbon stock until the 2nd MP was 10,096 tCO₂e (4,092 for 1st MP plus 6,004 for 2nd MP), and the total GS-VERs should be 11,587 (issued during 1st MP) +4,977 (to be issued during 2nd MP) equals to 16,564 tCO₂e. This represents a 39% increase compared to the ex-ante estimated carbon stock, which is in compliance with Section 11.4.1 of GHG EMISSIONS REDUCTIONS & SEQUESTRATION PRODUCT REQUIREMENTS specifically:</p> <p><i>“a. At any time during a crediting period, the Project Developer shall ensure that</i></p> <ul style="list-style-type: none"> - <i>the quantity of the PERs is equal or less than to the project’s expected (ex-ante) carbon stocks</i> - <i>the quantity of GSVERs is equal or higher (not less) to the project’s expected carbon stocks.”</i> <p>During the on-site inspection, VVB verified four permanent sampling plots (PSPs) across 3 MUs by measuring diameter at breast height</p>



				<p>(DBH) and tree height, observing only slow growth in the later stages of seedling development. However, no evidence of low carbon sequestration, loss events, or seedling mortality due to sandy soil or dry weather was found that could impact the project's overall carbon sequestration. Additionally, no indications of poor project management were observed. Based on the review of the ex-ante carbon calculation spreadsheet^{03/}, VVB confirms that there was no over-estimation in the GS-approved ex-ante sheet or the PD. The issuance of GS-VERs was distributed as follows: 11,587 GS-VERs over seven years in the first MP (11.04.2014 – 31.12.2020) and 4,977 GS-VERs over three years in the second MP (01.01.2021 – 31.12.2023), averaging 1,656 GS-VERs per year, which is 39% higher than the ex-ante estimate of 1,009 GS-VERs per year. During the on-site inspection, VVB has furthermore witnessed that there was some replanting has occurred in the project area, the seedlings are too small to be included in the calculation of CO₂ sequestration, henceforth it will be included in the upcoming monitoring period. As a result, the actual achieved value for SDG 13 in this monitoring period is lower than the expected value. Henceforth, VVB confirms that the project complies with the relevant methodology and other requirements, with no non-force majeure reversals resulting from poor project management or overestimation of CO₂ fixation. Therefore, the project meets all applicable</p>
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				<p>GHG Emission Reduction & Sequestration Product Requirements without any non-compliance issues related to carbon stock estimation or credit issuance. Therefore, VVB concludes that no 'Performance Shortfall' or 'Underperformance' has occurred.</p> <p>VVB confirms that according to the definition in PERFORMANCE SHORTFALL-GUIDELINES, REQUIREMENTS AND PROCEDURE, 'Loss event' refers to any situation where there is a significant loss (more than 5%) of previously verified GSVERs as a result of losses of carbon stocks in pools accounted for the project; and 'Reversal event' refers to a situation where net carbon stocks are negative as a result of a loss in carbon stocks. Based on the above-assessment, VVB concludes that has been no 'Reversal event' or 'Loss event' occurred as well and does not need any revisions in the GS approved carbon calculation spreadsheet. Hence, VVB concludes that this doesn't fall under the scope of Section 1.3 of GS4GG Shortfall of performance guideline.</p>
	SDG- 15 Trends in species diversity	Annually: Increased	16	<p>VVB has done assessment based on the review of GS MR^{/01/}, supporting documents^{/23/} and questionnaires which are as follows:</p> <ul style="list-style-type: none"> Based on the review of Annual report from year 2016 to 2020 and annual report 2021, and enhanced biodiversity data^{/06/} VVB has assessed that the species number has been increased in year



				<p>2018. As per annual report from 2016 to 2020:</p> <ul style="list-style-type: none"> • In the year 2014, 22 species of plants were found in the project area • In the year 2018, 30 species of plants were found in the project area • In the year 2019, 26 species of plants were found in the project area. • In the year 2020, 25 species of plants were found in the project area. <p>As per annual report year 2021:</p> <ul style="list-style-type: none"> • In the year 2021, 26 species of plants were found in the project area. <p>In reference with web search Dataset of plant images taken by drones in Inner Mongolia in 2022-2023—Plant Science Data Center (plantplus.cn), it has been found that plant of 40 species, 32 genera, 19 families have been found in the region of Mongolia.</p>
	SDG 8: Decent Work and Economic Growth	10	11	<p>Based on the review of GS MR^{/01/}, supporting documents^{/05/}, on-site inspection/ interviews^{/i-xii/} employment agreements^{/11/} along with electronic payments of all the 11 forest rangers^{/11/}, VVB verifies that PD has effectively provided 11 jobs to the local residents which marks an increase in the value which was estimated target of 10.</p>

g) Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

Means of validation	DR, OSV, I
Findings	--
Conclusion	Based on review of the GS MR ^{/02/} , VVB concludes that during the monitoring period, the project's location in sandy terrain and the relatively dry weather conditions have slowed the growth of seedlings in the later stages. However, no evidence of low carbon sequestration, loss events, or seedling mortality due to sandy soil or dry weather was found that could impact the project's



	<p>overall carbon sequestration. Additionally, no indications of poor project management were observed. During the on-site inspection^{i-xiii/}, VVB has furthermore witnessed that there was some replanting has occurred in the project area, the seedlings are too small to be included in the calculation of CO₂ sequestration, henceforth it will be included in the upcoming monitoring period. As a result, the actual achieved value for SDG 13 in this monitoring period is lower than the expected value. Henceforth, VVB confirms that the project complies with the relevant methodology and other requirements, with no non-force majeure reversals resulting from poor project management or overestimation of CO₂ fixation.</p> <p>VVB confirms that according to the definition in PERFORMANCE SHORTFALL-GUIDELINES, REQUIREMENTS AND PROCEDURE, 'Loss event' refers to any situation where there is a significant loss (more than 5%) of previously verified GSVERs as a result of losses of carbon stocks in pools accounted for the project; and 'Reversal event' refers to a situation where net carbon stocks are negative as a result of a loss in carbon stocks. Based on the above-assessment, VVB concludes that has been no 'Reversal event' or 'Loss event' occurred as well and does not need any revisions in the carbon calculation spreadsheet. Hence, VVB concludes that this doesn't fall under the scope of Section 1.3 of GS4GG Shortfall of performance guideline.</p> <p>VVB based on the review of the https://registry.goldstandard.org/projects/details/1205 confirms that registry link shows no PERs have been issued to the project. VVB confirms that PP has confirmed in writing that no PERs have been issued in the past nor PERs shall be issued for the project in the future for the remaining Crediting Period duration in section E.6 of the MR report.</p>
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3.10 Safeguards reporting

Means of validation	DR, OSV, I	
Findings	CAR 04 has been raised and closed satisfactorily.	
Conclusion	As per section F of the GS4GG MR ^{03/} , VVB assessed the compliance of following safeguards:	
	Safeguards	VVB Assessment
	<p>Principles 7.1: GHG emissions This Principles has been monitored in section D.2 in according with the indicators of SDG 13.</p>	<p>Based on the review of GS MR^{01/}, Remote Sensing GIS^{13/} and KML shapefiles^{13/} and further doing on-site inspection/interviews^{i-xiii/}, it is ascertained by the VVB that PD has appropriately measured the trees in project area of 1,370.96 hectares. VVB confirms that the project involves plantation of native or naturalised tree species such as <i>Pinus sylvestris</i> and <i>Poplar</i> spp. which overall has sequestered 4,977 tCO₂e (Tree Biomass) for this monitoring period.</p>
	<p>Principles 9.2: Vulnerability to natural disaster</p>	<p>Based on the review of GS MR^{01/}, supporting documents^{07/}, Tongliao Public welfare Forest Ranger,</p>



	<p>This Principles has been monitored in section D.2 in according with the indicators of Area of fire, diseases and pests of Safeguarding Principles 9.2.</p>	<p>Management Log^{/24/} and on-site inspection/ interviews^{/i-xii/}, VVB has assessed that situation such as fire, disaster, forest pest and diseases in the area must be reported in time manner and appropriate measures must be taken within the scope of capabilities. Prohibition on burning of weeds on edges, candles, paper, smoking, wood chopping and burning, avoidance of fire activities such as camping, tourism are the 10 don'ts for forest fire preventions which have been found listed in the management log^{/24/}.</p>
	<p>Principles 9.6: Pesticides & Fertilisers This Principles has been monitored in section D.2 in according with the indicators of Pesticide and Fertilizer consumption Safeguarding Principles 9.6.</p>	<p>Based on the review of GS MR^{/01/}, supporting documents^{/17/} and on-site inspection/ interviews^{/i-xii/}, VVB verifies that PD has not made any use of Pesticides and Fertilizers for tree plantation nutrient enrichment and protection. As assessed above, the project does not involve usage of chemical fertilizer and synthetic pesticides. Thus, VVB confirms that there are no potential negative impacts attributable due to the project in-particular due to use of chemical fertilizers and synthetic pesticides.</p>
	<p>Principles 9.10: High conservation value areas and critical habitats This Principles has been monitored in section D.2 in according with the indicators of SDG 15 Trends in species diversity.</p>	<p>VVB, based on the review of the revised PDD^{/01/} confirms that PD have selected the project as a conservation project and the main project activity of the project is plant trees and it will be used as public welfare forest and it not used for timber production for commercial benefits. Thus, the silvicultural method of the project applied/envisioned is 100 % conservation forests. Based on desk review, VVB confirms that since the project is a conservative project and not harvesting for commercial purposes will be applied, the requirement of 10 % HCV is not applicable.</p>

3.11 Stakeholder Inputs and Legal Disputes

Means of validation	DR, OSV, I
Findings	CL 05 has been raised and satisfactorily closed.
Conclusion	



As per section G of the GS4GG MR^{03/}, there are 3 disputes, inputs and comments reported by the stakeholder. The grievances and the solutions are appropriately defined in section G.1 of the GS4GG MR^{03/}.

This was further verified by the VVB through desk review and on-site visit^{i-xiii/}. Furthermore, VVB verified that the Inputs and Grievances logbook is kept within the community accessibility and the project developer.

Based on a review of the Standard Operating Procedures (SOP)^{18/} and the grievance logbook^{09/} submitted by PD, VVB confirms that the PD has updated the section outlining the procedures for collecting, responding to, resolving, and processing relevant grievances. Additionally, VVB confirms that PD conducted a separate stakeholder consultation on 19/07/2023 during the second monitoring period to discuss potential options with stakeholders. As a result of these discussions, PD received relevant grievances, in line with stakeholder requirements. VVB furthermore confirms that all grievances received during the monitoring period have been meticulously recorded and documented.

4 Certification Opinion

CC IPL has performed the second (2nd) periodic verification (performance certification) of the registered Gold Standard project activity “**Afforestation Project in Tongliao, Inner Mongolia**” (GS4GG 3031) for the period 01/01/2021-31/12/2023 (including both the dates).

This verification was conducted on the basis of the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)^{B03/B02/}, PAR Principles-requirements v1.2^{B02/}, GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{B01/}, Risks & Capacities Guideline for Land Use & Forest projects Version 1.0, PAR Validation and Verification standard v1.0^{B04/} and GHG Emissions Reduction & Sequestration Product Requirements Version 2.0^{B06/}.

The performance certification activities conducted by CC IPL included: collection of information, documents and data supporting the reported GHG removals; assessment of biomass inventory and GHG calculation spreadsheets; assessment of monitoring practices on the field; assessment of information management system; assessment of whether the project has been implemented in accordance with the validated documentation; and assessment of whether the provisions made in the monitoring plan were consistently and appropriately applied.

VVB has raised Seven (07) clarification (CLs), Four (04) corrective action requests (CARs), One (01) FAR from previous verification has also been addressed during this verification and has been satisfactorily closed.

The VVB concludes with a reasonable level of assurance that the project is in conformance with Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)^{B03/B02/}, PAR Principles-requirements v1.2^{B02/}, GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{B01/}, Risks & Capacities Guideline for Land Use & Forest projects Version 1.0, PAR Validation and Verification standard v1.0^{B04/} and GHG Emissions Reduction & Sequestration Product Requirements Version 2.0^{B06/}. No qualifications or limitations exist with respect to the verification opinion reached by the auditor. CC IPL confirms that the project has been implemented in accordance with the validated project documentation and applied GS A/R requirements.

The VVB, hereby certifies that the quantity of CO₂ benefits acquired by the project activity from 01/01/2021-31/12/2023 (including both the dates), 3982 tCO₂e as described in the table below:.

Start Dates	End Dates	VERs (Tree CO ₂)	Leakage emissions (tCO ₂ e)	Risk buffer of 20% (tCO ₂ e)	Net CO ₂ -certificates (tCO ₂ e) (Rounded down)
01/01/2021	31/12/2021	1659	0	331	1328
01/01/2022	31/12/2022	1659	0	332	1327
01/01/2023	31/12/2023	1659	0	332	1327
Total		4977 tCO₂e	0 tCO₂e	995 tCO₂e	3982 tCO₂e

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Appendix 1. List of Findings from Verification

Table 1. FAR from previous SustainCERT review

FAR	01	Section no.	Date: 09/06/2024
Description of FAR			
<p>The reviewer notes that the GSF Project Design Document and Monitoring Report templates do not appear to have been completed by the Project Proponent. However, it is their understanding that these documents will only have to be completed following formal GSF approval of the project's transition to GS4GG. The Project Proponent will need to produce a completed Monitoring Report using the required template prior to the next performance certification audit. While the safeguarding principles assessment within the transition document is considered to be sufficient for the purposes of the project's transition to GS4GG, the safeguarding principles assessment will need to be adopted into the project's PDD and monitoring report following the transition process and prior to the next performance certification audit.</p>			
Project Developer response			Date: 24/06/2024
<p>The completed Monitoring Report (MR) using the latest version of required template has been provided and the safeguarding principles assessment has been adopted in the provided PDD and MR following the transition process.</p>			
Documentation provided by Project Developer			
<p>A.1-Tongliao_AR_GS_V01-Project-Design-Document-20240806-track L.1-Tongliao_AR_GS_V01-Monitoring-Report-20240806-track</p>			
VVB assessment			Date: 16/08/2024
<p>VVB based on the review of PDD and Monitoring report has found that both the documents are provided in the latest version as per the template required:</p> <ol style="list-style-type: none"> I. A.1-Tongliao_AR_GS_V01-Project-Design-Document-20240806-track, Version 1.5, Dated 29/06/2023 II. L.1-Tongliao_AR_GS_V01-Monitoring-Report-20240806-track, Version 1.1, Dated 14/10/2020 <p>Based on the review of Appendix 1 of PDD, the safeguarding principles assessment has been updated with response to the principles in the provided PDD and MR following the transition process.</p>			
FAR has been closed			

Table 2. CL from this Performance Certification

CL	01	Section no.	A.1 of GS MR	Date: 09/06/2024
Description of CL				
<p>In compliance with Table 1 of the GS MR,</p> <ol style="list-style-type: none"> 1. PD is requested to provide the evidence (Biodiversity Report or Annual Reports) on yearly basis for Life on Land for which they have mentioned under SDG 15: <i>"Trend of species diversity"</i> 2. PD is requested to provide the evidence (questionnaire survey, training records on forest management, meeting records, attendance sheets, employment records, payment receipts) on yearly basis for Peace, justice and strong institutions for which they have mentioned under SDG 16: <i>"Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group"</i> <p>Furthermore, PD is requested to provide the value and details for both the SDGs under column <i>"Amount Achieved"</i> in Table 1 of GS MR.</p>				
Project Developer response				Date: 24/06/2024
<ol style="list-style-type: none"> 1. According to the Annual Report from 2016 to 2020 of the projects, there are 22 species of plants in the project. According to the biodiversity monitoring data in this monitoring period, there are 38 species of plants in the project area. Through the infrared cameras in the project 				

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area, some animals such as *Phasianus colchicus*, *Capreolus pygargus*, *Vulpes vulpes* and *Nyctereutes procyonoides* were found in project area. Therefore, the SDG 15: "Trend of species diversity" is increased. The evidence "MRCL01-biodiversity evidence" will be provided as evidence.

2. According to Section 4.1.16 in Principles & Requirements, Option 1 was used to evaluate the SDG impact in first monitoring period (11/04/2014 to 31/12/2020) and the SDG13, SDG15, and SDG 16 were identified. From 13 March 2022, the SDG Impact Tools are a mandatory part of the project development cycle, and then Option 2 was used in second period time (01/01/2021 to 01/11/2023) to demonstrate SDG impacts of the project and the SDG13, SDG15, and SDG 8 were identified according to latest SDG Impact Tools. The monitoring indicators has been changed from the SDG 16 to SDG 8 "Total number of jobs", which can be proved by the Employment agreements of forest rangers.

Documentation provided by Project Developer

MRCL01-SDG evidence

VVB assessment

Date: 16/08/2024

VVB based on the review of GS MR and supporting documents has assessed the following:

1. Based on the review of Annual report from year 2016 to 2020 and annual report 2021, VVB has assessed that the species number has been increased in year 2018. As per annual report from 2016 to 2020 the following data has been found:
 - In year 2014, 22 species of plants were found in the project area
 - In year 2018, 30 species of plants were found in the project area
 - In year 2019, 26 species of plants were found in the project area.
 - In year 2020, 25 species of plants were found in the project area.

As per annual report year 2021:

- In year 2021, 26 species of plants were found in the project area.

In reference with web search [Dataset of plant images taken by drones in Inner Mongolia in 2022-2023—Plant Science Data Center \(plantplus.cn\)](#), it has been found that plant of 40 species, 32 genera, 19 families has been found in the region of Mongolia.

2. For SDG 8 "a total of 11 forest rangers were employed. Therefore, the estimated SDG 8 project outcome is significantly increased" the number of employed villagers has been found inconsistent with Section E 4 of GS MR, Section B6.4 of GS PDD and P9.6 of Appendix 1 of GS PDD. Additionally, PD is requested to provide the employment agreements and payment records of all the 11 forest rangers.

CL is still open.

Project Developer response

Date 27/08/2024

The Electronic payment records and employment agreements of local payment system of all the 11 forest rangers has been provided as evidence. As described in above (response to CL02), the number 10 is ex-ante estimated value in GS PDD and the number 11 is the ex-post value based the pay records in this monitoring period.

Documentation provided by Project Developer

Please refer to the evidence PDDCL07-2nd

VVB assessment

Date 11/09/2024

As assessed in the CL02, PD has clarified that there is a change in the actual monitoring value (estimated as "10 jobs") of SDG.8, which is 11 jobs are provided during the current monitoring period and the supporting evidence employment contracts for the same are provided and checked by the VVB team. The same was made consistent in Section E 4 of GS MR, Section B6.4 of GS PDD.

CL01 has been closed.

CL	02	Section no.	A.1 of GS MR	Date: 09/06/2024
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Description of CL

In compliance with Section B.1 of the GS MR, *“These project activities improved local environment through growing of the trees, increased local residents’ income by offering job opportunities, enhanced the capabilities of local communities and residents by providing training on technical skills, and increased local biodiversity as a result of an increasing forest cover of trees.”*

PD is requested to provide the evidence for the same including the training records, attendance sheets, training certificates, etc

Project Developer response

Date: 24/06/2024

The raining records, attendance sheets have been provided as supplementary evidence.

Documentation provided by Project Developer

PDDCAR06-training and education

VVB assessment

Date: 16/08/2024

Based on the review of training and education document, it has been found that trainings has been taken on 10/10/2021, 07/07/2022, 19/09/2023 on the investigation and handling of illegal cases such as forest fire prevention, wildlife theft, interpretation of laws and regulations, duties and authority of forest rangers and prohibition of grazing in forest areas and training course on monitoring and survey of Pine Wood nematodes disease in Hoiqin Left Rear Banner.

CL has been closed

CL	03	Section no.	A.1 of GS MR	Date: 09/06/2024
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Description of CL

Based on the review of the referred Section of GS MR,

“The planting and maintenance work were implemented by the local villagers under the supervision of Roots & Shoots and Climate Bridge”.

However, it was found unclear that from the GS PDD and GS MR that from where the planting material were provided to local villagers for plantation activities.

Project Developer response

Date: 24/06/2024

The planted poplar seedlings are mainly purchased from local private nurseries, while the seedlings of *Pinus sylvestris* mainly come from nurseries preserved by the local government themselves. The GS PDD and MR has been revised correspondingly. The seedings photos of poplar and *Pinus sylvestris* has been provided as evidence.

Documentation provided by Project Developer

VVB assessment

Date: 16/08/2024

Based on the onsite inspection, interviews, and a visit to the government nursery, the VVB has assessed that seedlings of *Poplar* spp. and *Pinus* spp. were provided by the local government and is primarily purchased from private nurseries.

CL has been closed

CL	04	Section no.	Carbon Calculation Ex-Post	Date: 09/06/2024
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Description of CL

VVB based on the review of *“L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240429.xlsx”* found the following:

1. Different number of saplings are found planted in the same unit area for Poplar and *Pinus* spp. PD shall provide the clarification for the different number of saplings found in the same plating area.
2. All the planted species are of 8-10 years. PD is requested to clarify that how plant saplings are accounted for biomass estimation instead of trees.
3. For Sheet *“Annual CO2 Fixation”*, values for average height, average DBH and for cell 46 are found hardcoded.

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4. In line with CO2 Certificates sheet of “Copy of L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240429”, description to tVAL for n, E2 found missing.

Project Developer response **Date: 24/06/2024**

- In fact, the initial planting density of poplar trees is 67 trees/Mu, while for Pinus sylvestris, due to differences in the size of actual planted seedlings, the initial planting density is 67 trees/acre or 134 trees/acre. However, due to differences in terrain, initial design, and actual construction, there are certain differences in the initial planting density of pine and poplar trees. In the years after planting, some seedlings died and replanted, resulting in an overall density of around 31-48 poplar trees and 31-46 or 89 Pinus sylvestris trees in each plot unit (0.04 ha).
- Biomass estimation for every tree in samplings of MU1, 2 and 3 has been provided in sheets MU1, MU2 and MU3 of the document “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806”, the annual monitoring data of trees in samplings has been monitored every year and the average DBH and height will be recorded (evidence MRCL04-Site sampling results of annual report in the second MP).
- As described above, for Sheet “Annual CO2 Fixation”, values for average height, average DBH are the recorded value from local monitoring team every year. The source data has been provided as evidence. For cell 46, It’s the CO₂ fixation calculation results in the first monitoring period which from the GS website of the project: <https://platform.sustain-cert.com/public-luf-project/2809> “Emission Reduction Calculation Excel File (5.7 - Tongliao_CO2-Fixation Calculation-MR-track.xlsx)”
- Description to tVAL for n, E2 has been added in the Emission Reduction Calculation Excel File “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806”.

Documentation provided by Project Developer

MRCL04-Site sampling results of annual report in the second MP

VVB assessment **Date: 17/08/2024**

Based on the review of the shared documents, VVB has assessed the following:

- In line with “MRCL04-Site sampling results of annual report in the second MP” and “Planting design report-2016”, planting density of 67 trees/acre has been observed and through the onsite inspection, it has been noticed that an establishment of some seedlings brings the difference in the overall density of around 31-48 Poplar spp. or 89 *Pinus sylvestris* in each plot unit of 0.04 ha.
- Based on the review of referenced literature and ex-ante & ex-post carbon sheet, it has been found that the species planted are of age 8-10 years and classified as trees.
- Based on the review of “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806” and “GS3031_5.7 - Tongliao_CO2-Fixation Calculation-MR-clean (1)”, it has been assessed that the values used for average height and DBH are the recorded values for monitoring unit every year. Value found in cell 46 is used from “GS3031_5.7 - Tongliao_CO2-Fixation Calculation-MR-clean (1)” found at [SustainCERT Platform \(sustain-cert.com\)](https://platform.sustain-cert.com)
- Based on the review of “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806” description to tVAL for n, E2 has been added.

CL has been closed

CL 05 **Section no.** G of GS MR **Date: 09/06/2024**

Description of CL

- Under the section G of the GS MR, PD shall provide the supporting evidence *i.e.*, Grievance logbook in compliance with the GS Template Guide for Monitoring Report version 1.1, which includes,

“All disputes, inputs and comments received via the approved CIGM and show how these were responded to and/or mitigated. Please clarify any items that have not been fully addressed and that require follow up action.”
- Given that the availability of Input and Grievance Expression Process Book is Compulsory as per GS 102_V1.2_PAR_Stakeholder-Consultation-Requirements 7.1.3 stating that at a minimum, Continuous Input and Grievance Expression Process Book shall be made available

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at an agreed location. PD is requested to provide the details of the location along with particular evidence.

Project Developer response
Date: 24/06/2024

1. As the section G.1 of MR, The Continuous Input and Grievance Expression Process Book has been published on the notice board of the local village. Stakeholders can write their comments or suggestions in the book anytime or reflect the special issue to the local forest rangers or the project contacts. In this monitoring period, through interviews with local forestry departments and local residents, some grievances have been received for the project by Continuous Input and Grievance Mechanism. And the opinions have been provided evidence "MRCL05-Records from contacts of Grievances".
2. As described above, the Input and Grievance Expression Process Book been published on the notice board available for local villagers. The photos of the Grievance Expression Process Book published on the notice board will be provided as evidence.

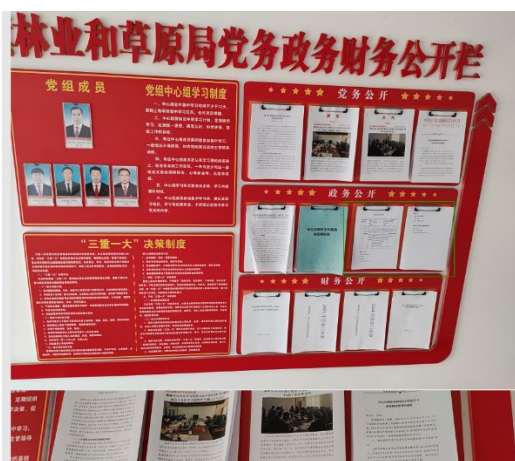
Documentation provided by Project Developer

MRCL05-Records from contacts of Grievances

MRCL05-The photos of the Grievance Expression Process Book published on the notice board

VVB assessment
Date: 16/08/2024

1. Based on the review of grievance record, VVB has been assessed those issues related to 1.) implementation of subsidy have been addressed noting that carbon sink funds has been awaited to be implemented and corresponding salary standards will be adhered to. Regarding the understanding of carbon sink afforestation – it was responded that brochures and training sessions will be developed and organised to explain the subsidy implementation process and to educate people about the carbon sink afforestation practices. However as per the Section G.1. List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations, PD shall list all the grievances in section G.1 of MR.
2. In regard with the Grievance Expression Process Book, supporting documents has been shared for the same available for local villagers. The monitoring staff will report the inputs/grievances to general manager who is responsible to solve problem and improve situation.


CL is still Open
Project Developer response
Date: 27/08/2024

PD has listed all the grievances received in this monitoring time based on the evidence "Records from contacts of Grievances" in section G.1 of MR (page 35).

Documentation provided by Project Developer
VVB assessment
Date: 16/08/2024



VVB based on the review of the GS MR confirms that the section G.1 of the MR is revised with the list of inputs received during the current monitoring period as follows;

1. March 22, 2021: Bao Xibao asked about the timeline for subsidies.
PD has responded appropriately by saying that the subsidies will be provided once carbon sequestration benefits are implemented, following salary standards.
2. August 3, 2022: Hu Sileng noted that most villagers lacked knowledge about carbon sequestration afforestation and requested more outreach.
PD has responded appropriately by saying that the PD will distribute brochures or organize training to educate on carbon sequestration.
3. May 6, 2023: Liu Wei recommended greater promotion of the carbon sequestration afforestation project to increase awareness among locals.
PD has responded appropriately by saying that the PD will create promotional slogans and display them on the village bulletin board to inform about project.

CL has been closed.

CL	06	Section no.	Annual Reports	Date: 09/06/2024
Description of CL				
Individual Annual reports from 01/01/2021 to 31/12/2023 are not found in the supporting documentation. The monitoring report submitted indicate that the last annual report was prepared in 28/12/2023, therefore 2021 and 2023 annual reports are missing.				
Project Developer response				Date: 24/06/2024
The date "28/12/2023" is the time for submitting the annual report (01/01/2022 to 31/12/2022) to the GS. As described in section 5.1.39 of GS PRINCIPLES & REQUIREMENTS, "An annual report shall be submitted for each monitoring year by end of next calendar year for which verification is not completed". According to the requirement, as long as the verification was completed, the annual report of the monitoring year will not need to submit and the verification during this monitoring period will be completed before the end of 2024, so there is no need to submit the annual report for 2023. The annual report for 2021 was submitted to GS, and it is possible that the GS system issue was not made public. The annual report 2021 has been provided as evidence.				
Documentation provided by Project Developer				
MRCL06-Annual report				
VVB assessment				Date: 16/08/2024
Based on the review of annual report for monitoring period from 01/01/2022 to 31/12/2022, VVB has assessed that the project monitoring team from Shanghai Roots & Shoots and Climate Bridge (Shanghai) Ltd., in collaboration with local villagers, noticed biodiversity and vegetation coverage increase in the project area. The survey results indicate that in 2022, Tongliao experienced frequent rainfall during the summer, which positively impacted tree growth. As a result, most of the forests cover has been increased than before.				
CL has been closed				

CL	07	Section no.	D.3 of the GS MR	Date: 09/06/2024
Description of CL				
As per Section D.3 of the GS MR, "There is not applicable due to the bundled project is non-Community Service Activities"				
PD is requested to clarify that how they are justifying the project as a non-Community Service Activities. Furthermore, PD is requested to revise the referred section as per the requirements of GS Template Guide for Monitoring Report, version 1.1.				
Project Developer response				Date: 24/06/2024
"COMMUNITY SERVICES ACTIVITY" is a special type of the project activities, including electricity and energy, water and sanitation, waste management, housing, etc. This project has a special				

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requirement “COMMUNITY SERVICES ACTIVITY REQUIREMENTS” in GS. Tongliao project is an afforestation project, and the project is non-Community Service Activities.

Documentation provided by Project Developer

GS document “COMMUNITY SERVICES ACTIVITY REQUIREMENTS”

VVB assessment **Date:** 16/08/2024

Based on the review of [Community Services Activity Requirements – Gold Standard for the Global Goals](#), it has been found that afforestation projects are not categorised as Community Service Activity under GS.

CL has been closed

Table 3. CAR from this Performance Certification

CAR	01	Section no.	C of the GS MR	Date: 09/06/2024
Description of CAR				
<ol style="list-style-type: none"> In the referred section of GS MR, no information has been provided on methodological equations, approaches and sample calculations used to calculate the following parameter: <ul style="list-style-type: none"> Project Emissions Leakage Net GHG removals. Based on the review of the GS MR and PDD, VVB has found that some data & parameters for ex-ante and data & parameters monitored mentioned in the PDD is missing in the GS MR. <p>Also, as per the template instruction ““Source of data”, ensure that the source of data are provided so that they can be reviewed; The name and reference of the supporting documentation must match the quoted source for easy traceability during certification.” PD is requested to provide the links of referred documents.</p> In compliance with the template instruction under Section D.4. & E.1. of the GS MR, “Attach to the monitoring report any spreadsheets to present full calculations or detailed information.” The links for the spreadsheets are missing. Under the section E.2, “Under a heading for each SDG, provide sample calculations for all formulae used to calculate/estimate project values (SDG 13 - emissions or net removals), applying actual values. Clearly reference the spreadsheets used (including sheet names as necessary) and supply them as supporting evidence to the monitoring report. The aim is to direct your assurance providers to the information as quickly as possible, which will result in a quicker review process.” VVB found that the following information are missing in the GS MR. Under the section E.5, PD shall provide vintage wise comparison for the whole monitoring period. PD shall revise the section as per GS Template Guide for Monitoring Report, version 1.1. 				
Project Developer response				Date: 24/06/2024
<ol style="list-style-type: none"> As TEMPLATE GUIDE of the MR, a description “Provide a description of the monitoring system in accordance with the description of monitoring system and the monitoring plan in the Design Certified PD” is needed, the sampling plan and Operational and management structure has been added in this section. The parameter about Project Emission has been described in Section E.2, E.3 and E.4 in MR and the methodological equations, approaches are also there. The Value applied of the ex-ante and data & parameters monitored mentioned in PDD has been added in section D.1 and D.2 of MR. The “Source of data” are all provided, some of them are from literature, and another are from Methodology A/R V2. There can get from the emission reduction calculation table “B.1&B.4- Tongliao_CO2-Fixation Calculation-PD-track-20240806” or “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806”.The relevant literature source was annotated as described above for response to PDDCL08. 				

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3. The spreadsheets to present full calculations or detailed information “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806” has been attached for the MR as evidence. File hyperlinks are easily lost during file transfer; therefore, no link is provided.
4. The spreadsheets to present full calculations or detailed information “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806” has been attached for the MR as evidence.
5. As per GS Template Guide for Monitoring Report, Pd has used the module table “Comparison of actual SDG Impacts with estimates in approved PDD”, and vintage wise comparison for the whole monitoring period with 20% buffer has been added.

Documentation provided by Project Developer

VVB assessment

Date: 16/08/2024

VVB based on the review of the GS MR, PDD and carbon calculation sheet has assessed the following:

1. Section C of GS MR has been updated with the following heads:
 - Sampling plan
 - Operational and management structure
 - Uncertainty assessment with different approaches
 - Data management
 - Responsibilities and institutional arrangements

Data parameters has been updated in Section D of GS MR.

2. Section D of PDD and MR has been updated with the source of data for the Data and Parameters fixed ex-ante and for Data and Parameters to be monitored along with QA/QC for selected parameters. VVB found that the data and parameter of “Root-to-Shoot ratio for tree biomass” in project is still missing from the updated PDD. PD is requested to provide the links of referred documents.
3. PD is requested to provide the links of referred documents as per the template instruction.
4. Calculation and formula estimates for the SDGs achieved has been provided under Section E2. For SDG 8 “a total of 11 forest rangers were employed. Therefore, the estimated SDG 8 project outcome is significantly increased” the number of employed villagers has been found inconsistent with Section E 4 of GS MR, Section B6.4 of GS PDD and P9.6 of Appendix 1 of GS PDD.
5. As per the template instruction version 1.1, PD has updated Section E of GS MR with the comparison values of the actual SDG Impacts for all the achieved SDGs.

CAR is still open

Project Developer response

Date 27/08/2024

Response to 2: The source of data of “Root-to-Shoot ratio for tree biomass” has been updated in Section D of MR (page 16) and Section B.6 of PDD (page 45).

Response to 3: The relevant paper link of source of data has been added in Section D of MR and Section B.6 of PDD.

Response to 4: As described in above (response to CL02), the number 10 is ex-ante estimated value in B6.3 of GS PDD where the ex-ante estimation of SDG Impact would be explained. The number 11 is the ex-post value based the pay records in this monitoring period. According to the Electronic payment records of local payment system, a total of 11 forest rangers were employed. The section E.2 of GS MR has been corrected in page 29. And the employed forest rangers in this monitoring time is 11 which is the value of the P6.1 of Appendix 1 of GS PDD (page 78).

Documentation provided by Project Developer

VVB assessment

Date 11/09/2024

2. Based on the review of the PDD and MR VVB, confirms that the section B.6 of PDD and section D of the MR has been revised with the parameter root shoot ratio for which value (underground biomass is the sum of dead and alive roots) is adopted from an appropriate source [Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification | Semantic Scholar](#) is provided and further this study is carried out in the central-southern part of the



Horqin Sandland in Naiman Banner, Tongliao City, Inner Mongolia Autonomous Region which same region as the project areas. Therefore, the same is accepted.

3. In line with the template instructions, the required weblinks/sources are provided for the data parameters in the section B.6 of PDD and section D of the MR.

4. Please refer assessment provided in CL02 of table.2.

CAR has been closed.

CAR	02	Section no.	B.1	Date: 09/06/2024
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Description of CAR

- VVB has assessed that *“the project proponent conducted the section field monitoring activities of second monitoring period (from 01/01/2023 to 31/12/2023)”*. The duration of monitoring period found inconsistent with Key project information.
- PD is also requested to clarify that how is the date of monitoring i.e., 01/11/2023 – 05/11/2023 is before the end date of monitoring period.

Project Developer response	Date: 24/06/2024
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- The section field monitoring activities has been conducted from 01/11/2023 to 05/11/2023, and the second monitoring period is from 01/11/2023 to 31/12/2023.
- For convenience, we have set this monitoring period as the last day of the 2023. Because the monitoring data for each monitoring period is fixed and the end date of monitoring time will not affect actual VERs, and it is convenient to calculate according to the calendar year.

Documentation provided by Project Developer

VVB assessment	Date: 16/08/2024
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VVB based on the review of Section B.1 and through the onsite visit has found that “From 01/11/2023 to 05/11/2023, the project proponent conducted the section field monitoring activities of second monitoring period (from 01/01/2023 to 31/12/2023). Due to snowfall in the project area during this time, the monitoring was conducted before the end date of the monitoring period. The VVB has determined that conducting the monitoring early does not affect the actual VERs for the monitoring period.

CAR has been closed

CAR	03	Section no.	F of the GS MR	Date 09/06/2024
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Description of CAR

VVB based on the review of GS MR have assessed that Section F states *“ P9.10 - This Principles has been monitored in section D.2 is according with the indicators of SDG 15 Trends in species diversity.*

However, the same safeguarding principle was found missing in Section D.2

Project Developer response	Date: 24/06/2024
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The principle P9.10 has been added in D.2 near the goal SDG 15, and the relevant description has been added in section D.2 of revised MR (page 21).

Documentation provided by Project Developer

VVB assessment	Date: 16/08/2024
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Based on the review of Section D.2, VVB has confirmed that SDG 15 has been updated as required and is found in line with Section F for P9.10.

CAR has been closed

CAR	04	Section no.	E.4 & E.5	Date 09/06/2024
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Description of CAR



VVB based on the review of Section E.4 & E.5, has found that project estimates and net benefit achieved by the defined goal found missing. PD shall provide the estimates and net benefit achieved by the goals.

Project Developer response

Date: 24/06/2024

As the section E.2 of MR, the SDG15 "Trends in species diversity" is increased. According to the Annual Report from 2016 to 2020 of the projects, there are 22 species of plants in the project. According to the biodiversity monitoring data in this monitoring period, there are 38 species of plants in the project area. Through the infrared cameras in the project area, some animals such as *Phasianus colchicus*, *Capreolus pygargus*, *Vulpes vulpes* and *Nyctereutes procyonoides* were found in project area. The biodiversity is increased.

According to Section 4.1.16 in Principles & Requirements, Option 1 was used to evaluate the SDG impact in first monitoring period (11/04/2014 to 31/12/2020) and the SDG13, SDG15, and SDG 16 were identified. From 13 March 2022, the SDG Impact Tools are a mandatory part of the project development cycle, and then Option 2 was used in second period time (01/01/2021 to 01/11/2023) to demonstrate SDG impacts of the project and the SDG13, SDG15, and SDG 8 were identified according to latest SDG Impact Tools. The monitoring indicators has been changed from the SDG 16 to SDG 8 "Total number of jobs", which can be proved by the Employment agreements of forest rangers.

Documentation provided by Project Developer

VVB assessment

Date: 16/08/2024

- VVB has identified that, according to the document 'GS3031_Transition-Annex-tongliao-20210625-clean,' uploaded on the GS website, three SDGs were selected i.e., SDG 13 Impacts, SDG 15 Impacts and SDG 16 Impacts. The PD is requested to clarify this inconsistency. In-case if the SDGs of the project changes or alters, then the PD must undergo the Design Change as per the requirements of GS4GG Design Change Requirements v 1.1.

For SDG 15, PD is requested to provide the exact number of trees that have been planted or maintained for this monitoring period.

VVB based on the review of Section E. 4 SDG 8 has been updated with the total number of jobs in the project estimate is 10 and baseline estimate is zero but the net benefit value is 11, which is found inconsistent.

- Based on the review of Annual report from year 2016 to 2020 and annual report 2021, VVB has assessed that the species number has been increased in year 2018. As per annual report from 2016 to 2020:
 - In year 2014, 22 species of plants were found in the project area
 - In year 2018, 30 species of plants were found in the project area
 - In year 2019, 26 species of plants were found in the project area.
 - In year 2020, 25 species of plants were found in the project area.

As per annual report year 2021:

- In year 2021, 26 species of plants were found in the project area.

In reference with web search [Dataset of plant images taken by drones in Inner Mongolia in 2022-2023—Plant Science Data Center \(plantplus.cn\)](#), it has been found that plant of 40 species, 32 genera, 19 families has been found in the region of Mongolia.

CAR is still open.

Project Developer response

Date 27/08/2024

According to Section 4.1.16 in Principles & Requirements, Option 1 was used to evaluate the SDG impact in first monitoring period (11/04/2014 to 31/12/2020) and the SDG13, SDG15, and SDG 16 were identified. From 13 March 2022, the SDG Impact Tools are a mandatory part of the project development cycle, and then Option 2 was used in second period time (01/01/2021 to 31/12/2023) to demonstrate SDG impacts of the project and the SDG13, SDG15, and SDG 8 were identified according to latest SDG Impact Tools. The monitoring indicators has been changed from the SDG 16 to SDG 8 "Total number of jobs". The "g. Sustainable development criteria " in APPENDIX 4



- DESIGN CHANGES has been updated according to the section 4.6.1 of the document GS4GG Design Change Requirements v 1.1 (page 107 of GS PDD). The new indicator of SDG 8 has been added in section B.6 of the GS PDD.

The indicator of SDG 15 is "Trends in species diversity". Based on the Guidance, calculation method and other considerations of the SDG 15 in SDG TOOL, "The monitoring thus only involves tracking which tree species are present at the restoration site, The functional diversity indicators can then be derived from that information". The planted tree species is Populus simonii Carrière and Pinus sylvestris L. var. mongholica Litv. And other plant and animal species will be monitored according to the monitoring plan in section B.7 of GS PDD. There are no demands for the exact number of trees that have been planted or maintained for this monitoring period.

According to the Electronic payment records of local payment system, a total of 11 forest rangers were employed. The section E.2 of GS MR has been corrected in page 29.

Documentation provided by Project Developer

VVB assessment

Date 11/09/2024

Please refer assessment provided in CL02 of table.2.

CAR has been closed.



APPENDIX 2: Competence Certificates



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Ahalee Bhowmik

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), A 6.4 AS (V1.0) ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

<input checked="" type="checkbox"/> Validator	<input checked="" type="checkbox"/> Verifier	<input checked="" type="checkbox"/> Team Leader	<input checked="" type="checkbox"/> Technical Expert
<input type="checkbox"/> Technical Reviewer	<input type="checkbox"/> Validator/Verifier (Trainee)	<input type="checkbox"/> Gender Expert	<input type="checkbox"/> Plastic Waste Expert
<input type="checkbox"/> CCB Expert	<input type="checkbox"/> Legal Expert	<input type="checkbox"/> Financial Expert	<input type="checkbox"/> Environmental, Health and Safety financial matters
<input type="checkbox"/> SDG Expert	<input type="checkbox"/> Expert Social aspect	<input type="checkbox"/> Expert Environment aspect	<input type="checkbox"/> Health Expert
<input checked="" type="checkbox"/> Regional Expert for India			

in the following Technical Areas:

<input type="checkbox"/> TA 1.1	<input type="checkbox"/> TA 1.2	<input type="checkbox"/> TA 2.1	<input type="checkbox"/> TA 3.1	<input type="checkbox"/> TA 4.1
<input type="checkbox"/> TA 4. n	<input type="checkbox"/> TA 5.1	<input type="checkbox"/> TA 5.2	<input type="checkbox"/> TA 7.1	<input type="checkbox"/> TA 8.1
<input type="checkbox"/> TA 9.1	<input type="checkbox"/> TA 9.2	<input type="checkbox"/> TA 10.1	<input type="checkbox"/> TA 13.1	<input type="checkbox"/> TA 13.2
<input checked="" type="checkbox"/> TA 14.1	<input type="checkbox"/> TA 15.1	<input type="checkbox"/> TA 16.1		

Issue Date	Expiry Date
20 th January 2025	19 th January 2026



Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

Revision date	Summary of changes
Dec 2023 ¹	Initial Adoption
April 2024	Revision due to A6.4 implementation
Jan 2025	Revised as per the latest organogram.

CCIPL_FM 7.9 Certificate of Competency_ V7.0_17012025
¹ Please refer to previous version of FM 7.9 for the revision history



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Chiluveri Murari

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), A 6.4 AS (V1.0) ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- Validator
- Technical Reviewer
- CCB Expert
- SDG Expert
- Regional Expert for India
- Verifier
- Validator/Verifier (Trainee)
- Legal Expert
- Expert Social aspect
- Team Leader
- Gender Expert
- Financial Expert
- Expert Environment aspect
- Technical Expert
- Plastic Waste Expert
- Environmental, Health and Safety financial matters
- Health Expert

in the following Technical Areas:

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

Issue Date
20th January 2025

Expiry Date
19th January 2026

Mr. Vikash Kumar Singh
Director-Compliance

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CC IPL_FM 7.9 Certificate of Competency_V7.0_17012025

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



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Nara Shen Yan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- Validator
- Technical Reviewer
- CCB Expert
- SDG Expert
- Regional Expert for China
- Verifier
- Validator/Verifier (Trainee)
- Legal Expert
- Expert Social aspect
- Team Leader
- Gender Expert
- Financial Expert
- Expert Environment aspect
- Technical Expert
- Plastic Waste Expert
- Environmental, Health and Safety financial matters
- Health Expert

in the following Technical Areas:

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

Issue Date

20th January 2025

Expiry Date

19th January 2026

Mr. Vikash Kumar Singh
Director - Compliance

Revision History of the document:

Revision date	Summary of changes
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Jan 2025	Revised as per the latest organogram.

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

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Certificate of Competency

Mr. Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS, A 6.4 AS/ ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- Validator
- Verifier
- Team Leader
- Technical Expert
- Technical Reviewer
- Validator/Verifier (Trainee)
- Gender Expert
- Plastic Waste Expert
- CCB Expert
- Legal Expert
- Financial Expert
- Environmental, Health and Safety financial matters
- SDG Expert
- Expert Social aspect
- Expert Environment aspect
- Health Expert
- Regional Expert for India/RSA and Spanish speaking countries

in the following Technical Areas:

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

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Mr. Amit Anand
CEO

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