

 Carbon — CHECK —	FM 4.9 Gold Standard Validation Report Template	August 2022
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Gold Standard Design Certification Renewal Report

For

“Afforestation Project in Tongliao, Inner Mongolia” (GS 3031)

Methodology: Gold Standard Afforestation/Reforestation (A/R) GHG

Emissions Reduction & Sequestration Methodology (Version 2.1)

Report No: CCIPL 2246/GS/RCP-VER/AFPT/20240408

Revision number: 04

Report Date: 24-March-2025


CARBON CHECK (INDIA) PRIVATE LIMITED

CIN: U74930DL2012PTC232495

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Corporate off: Unit No. 1701, Logix City Centre Office Tower, Plot No. BW-58, Sector-32 Noida, Uttar Pradesh

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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 23/11/ 2015	Scale:	Large
Methodology:	Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)	Sectoral Scope/Technical Area:	14/14.1
Initial PDD:	Version 1.0; dated 30/04/2024		
Final PDD:	Version 02; dated 23/09/2024		

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. VALIDATION TEAM

Validation Team			Role									
Full name	Affiliation	Appointed for Sectoral Scopes (Technical Areas)	Team leader	Acting/trainee Team Leader	Local Expert	Team Member (Auditor)	Technical Expert	Observer	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Ahalee Bhowmik	India	14.1	X				X					
Anuradha Thakur (worked)	India	14.1				X	X					


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 Carbon CHECK			FM 4.9 Gold Standard Validation Report Template					August 2022				
till 09/09/2024)												
Chiluveri Murari	India	14.1, 15				X	X					
Nara Shen Yan	China	-			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 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.

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 year 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.

Anuradha Thakur: (worked till 09/09/2024) 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.

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

Vikash Kumar Singh: Qualified lead assessor and internal technical reviewer for validations and verifications GHG mitigation projects under CDM, GS 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, CDM and GS projects in East Africa,


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as well as Central America.

III. VALIDATION REPORT

Status	Validation Phases
<input checked="" type="checkbox"/>	Document 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 registration
<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	24/03/2025
Approved by	Amit Anand
Designation	CEO
Signature	


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ABBREVIATIONS

AGB	Above Ground Biomass
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
DW	Dead Wood
GIS	Geographical Information System
KML	Keyhole Markup Language
LUF	Land Use & Forestry
LULC	Land Use Land Cover
LULUCF	Land use, Land-use Change, and Forestry
DR	Document review
DVR	Draft Validation Report
EI	External Individual
FA	Final Approval
FAR	Forward Action Request
FVR	Final Validation Report
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
KPI	Key Project Information
MP	Monitoring Period
MUs	Modelling Units
PD	Project Developer
QC/QA	Quality control /Quality assurance
SOC	Soil Organic Carbon
TA	Technical Area
TR	Technical Review
VVB	Validation & Verification Body
VER	Verified Emission Reduction

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1. Introduction

Climate Bridge (Shanghai) Ltd. has appointed Carbon Check (India) Private Limited. (CC IPL), a GS approved VVB to perform an independent Design Certification Renewal of the Project activity, titled “Afforestation Project in Tongliao, Inner Mongolia”, hereafter referred to as “Project”.

This report summarizes the findings of the Design Certification Renewal of the project, performed on the basis of GS4GG Principles & Requirements v1.2^{/B01/}, GS4GG LUF Activity Requirements v1.2.1^{/B01/} and Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)^{/B02/} and subsequent decisions by the Gold Standard Secretariat, as well as criteria given to provide for consistent project operations, monitoring and reporting and compliance with host country criteria and Gold Standard specific criteria.

This report contains the findings and resolutions of the design certification renewal and a design certification renewal opinion on the project

1.1 Objective


The purpose of a design certification renewal is to have a thorough and independent assessment of the proposed Project, GS PDD^{/01/} against the requirements of GS Principles & Requirements v1.2^{/B01/}, GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{/B01/} in particular, the project's baseline^{/15/}, additionality, and compliance with relevant Gold Standard requirements^{/B01/} and host party criteria. Gold Standard specific conditions are validated to confirm that the project design (as documented)^{/01/} is complete, reasonable and meets the stated requirements and identified criteria. Design certification renewal is seen as necessary to provide assurance to stakeholders about the quality of the project and its ability to generate proposed amount of Verified Emission Reductions (VERs).

1.2. Scope and Criteria

The scope is defined as an independent and objective review of Project Activity. The GS PDD^{/01/} is reviewed against the requirements of GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{/B01/}, GS4GG Principles & Requirements^{/B01/} and applicable decisions by the GS secretariat. The design certification renewal team has employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of GS VERs.

The validation scope is to review the updated GS-PDD^{/01/} against the GS principles and requirements^{/B01/}. Validation of the renewal of crediting period is a requirement and it is seen as necessary to provide assurance about:

- (a) Changes in the Project as related to the GS General Eligibility Criteria
- (b) Incorporation of any relevant updates to the Gold Standard Requirements
- (c) Re-definition of Baseline Scenario and any impact of change on the Eligibility Principles, Criteria and Requirements
- (d) Any Gold Standard activity, product, and methodology-specific Requirements
- (e) Demonstration of Ongoing Financial Need
- (f) The impact of relevant national and/or sectoral policies and circumstances on the baseline.

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- (g) The correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

The design certification renewal is not meant to provide any consultation towards the project participants. However, stated requests for clarifications and/or corrective actions may have been provided as input for improvement of the project design.

While carrying out the design certification renewal, CCIPL determines if the project activity^{01/} complies with the requirement of GS4GG requirements^{B01/}, specifically the applicability conditions of the selected methodology^{B02/} and also assesses the claims and assumptions made in the GS PDD^{01/}, other related templates and documents without limitation on the information provided by the project developer.

On-site inspection and stakeholder interviews have also been conducted as part of the design certification renewal process.

1.3. Level of Assurance

The Design Certification Renewal assessment has been conducted to indicate the reasonableness of assumptions, limitations, and methods on the likelihood of the proposed Project Activity^{01/}, achieving the anticipated net anthropogenic GHG removals and SDG impacts stated in the GS PDD^{01/}. VVB confirms that all assumptions and statements made by the PD are valid and appropriate with possible reasonableness. 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 VVB, nine (09) CARs, fifteen (15) CLs have been raised and one FARs has raised.

2. Methodology

The design certification consists of the following four phases:

1. Completeness check of the GS PDD^{01/} and other GS4GG A/R templates and requirements^{B01/B02/}.
2. Review of project documentation (GS PDD^{01/}, monitoring plan^{01/}, applied methodology^{B02/}, applicable tools^{B03/} in particular attention to the frequency of measurements, QA/QC procedures and other relevant documents and regulations).
3. On-site inspection (including follow-up interviews with project stakeholders, when deemed necessary).

The On-site inspection and interviews assessment include the following:

- An assessment of the Project design in line with the baseline and monitoring methodology^{B02/}
- An assessment of baseline scenario & additionality.
- Review of PA's eligibility of the GS LUF requirements^{B01/}.
- Review of PA's compliance with SDG claims
- Review of permanence of GHG removal including risk rating and measures^{14/}
- Review of LSC (including SFR) and grievance mechanism including interviews^{i-xii/} with the

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- relevant stakeholders^{/05/}
 - Interview^{/i-xiii/} with relevant personnel to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan (for both carbon calculations & SDG)^{/i-xiii/}.
 - Review of assumptions made in calculating the GHG removal estimations^{/03/}.
 - Assessment of QA/QC procedure in-line with the GS PDD^{/01/} and methodology requirement^{/B02/}.
4. Resolution of outstanding issues and the issuance of the Final Design Certification 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
- On-site Audit: 11/06/2024 – 13/06/2024
- Submission of DVR to client along with audit findings: 13/06/2024

3. Means of Validation

3.1 Desk/Document Review

The following table outlines the documentation reviewed during the design certification renewal:

S.No.	Documents	References
/01/	a. Tongliao_AR_GS_V01-Project-Design-Document-20240430-clean b. L.1-Tongliao_AR_GS_V01-Monitoring-Report-20240430-clean.docx	a. Version 1.0, 30 th April 2024 Version 2.0, 23 rd September 2024 b. Version 1.0, 30 th April 2024 Version 2.0, 24 th September 2024 Version 3.0, 21 st 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/	GHG Removals <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 Calculation-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 	Version 2.0, 16 th August 2022




	<ul style="list-style-type: none"> 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 	
/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 responses 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"> σ «Σγ ί σ ϕ» τέç_202307202258375.jpg σ «Σγ ί σ ϕ» τέç_202307210151374.jpg σ «Σγ ί σ ϕ» τέç_202307210151378.jpg σ «Σγ ί σ ϕ» τέç_202307210151379.jpg σ «Σγ ί σ ϕ» τέç_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/	<p>Peer Reviewed Literature for ex-post</p> <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 <p>Carbon potential of species included:</p> <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/	<p>SDG Monitoring Parameters</p> <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 	Organizational documents



	<ul style="list-style-type: none"> • 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 	
/12/	<p>Previous Performance Certification</p> <ul style="list-style-type: none"> • Tongliao_FVerR_Performance Area_20210625.pdf <p style="text-align: right;">Certification+New</p>	Version 2.0, 25 th June 2021
/13/	<p>Maps & Shapefiles:</p> <ol style="list-style-type: none"> 1. Folder_Project Boundary & Project Area 2. Folder_Individual Modelling Units <ol style="list-style-type: none"> a) MU1 b) MU2 c) MU3 3. Folder_Infrastructure 	
/14/	<p>GHG Consideration</p> <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/	<p>Baseline Reassessment</p> <ul style="list-style-type: none"> • History of the project site Baseline assessment • Eligible planting area assessment.pdf report • 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 	



	<ul style="list-style-type: none"> • Training record - 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 demonstration 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 • Risk 1.9 • Risk1.1 • Risk1.4 • Risk1.2 	
/26/	<p>Regulations & Approval</p> <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/	<p>Others</p> <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:	

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	<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/CJFDTotals-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 • Статистикийн мэдээллийн нэгдсэн сан (1212.mn) 	
/B01/	GS4GG requirements: a) 107_V2.0_PAR_Programme-of-Activity-Requirements b) 203_V1.2.1_AR_LUF-Activity-Requirements c) 501_V2.1_PR_GHG-Emissions-Reductions-Sequestration d) 203G_V1.0_AR_LUF_Risks-Capacities-Guideline e) Stakeholder Consultation and Engagement Requirements (version 2.0 f) Gold Standard Validation and Verification Manual v1.0	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
/B05/	Other GHG programs: a) CDM: https://cdm.unfccc.int/Projects/index.html b) VCS: https://registry.verra.org/app/search/VCS/All%20Projects GSF: https://registry.goldstandard.org/projects?q=&page=1 c) 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.

3.2. On-site inspection and follow-up interviews with project stakeholders

An on-site inspection has been performed by the members of the design certification renewal team of Carbon Check from 11/06/2024 to 13/06/2024 at PD’s office and 4 sample plantation sites in Zhaogensumogacha and Nugusitaigacha Horqin Left Rear Banne, China. The project representatives and stakeholders interviewed were:

Sl. No.	Name (Organisation)	Date	Type	Topic
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/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 • Training 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

3.3. Sampling Approach

In compliance with the Gold Standard Validation and Verification Manual v1.0 Section 6.3.2 (e.ii)^{B01/} an

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acceptance sampling approach for PDs sample size was followed by VVB team and same was in accordance with paragraph 38 and 39 of the Standard: Sampling and surveys for (version 09.0). VVB has used Raosoft (<http://www.raosoft.com/samplesize.html>), an online survey software tool for calculating VVB sample size by using precision level, confidence level and response distribution for determining the sample size. VVB team has opted for 25% margin of error and 75% confidence level in determining the VVB's sample size. The total permanent sample selected by PP i.e., 13 sample plots. Accordingly, VVB team plan to take 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 team also confirms that the followed sampling approach is representative and conservative for the project.

Sl. No	Name of the Project Area	Modelling Units	Plantation Area	PD's Sample Size	VVB Sample Size
1	Zhaogensumogacha and Nugasitaigacha 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

3.4. Resolution of outstanding issues

The objective of this phase of the design certification renewal 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 design, monitoring plan and management system. In order to ensure transparency, a validation protocol will be completed for the project. The protocol shows intransparent manner criteria (requirements), means of design certification renewal and resulting statements on verification of project against identified criteria.


The validation protocol serves the following purposes:

- It organizes in a table form, details and clarifies the requirements, a GS project is expected to meet GS4GG requirements^{/B01/B02/}.
- It ensures a transparent validation process where the VVB will document how a particular requirement has been verified.
- It ensures that the issues are accurately identified, formulated, discussed and concluded in the Design Certification report.

The validation 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 validation process.

The findings of validation 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				Date: DD/MM/YYYY
Documentation provided by the PD				

 Carbon CHECK	FM 4.9 Gold Standard Validation Report Template	August 2022
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VVB assessment	Date: DD/MM/YYYY
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In Table 1, FAR shall reflect the forward actions initiated by the validation team if the project design, monitoring, reporting or any other aspect require attention and/or adjustment for the verification period.

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

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

- 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.
- Modifications to the implementation, operation and monitoring of the registered project has not been sufficiently documented by the project participants.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions.
- 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 validation to highlight issues related to project implementation/monitoring that require review during the subsequent verification of the project. FARs shall not relate to the GS requirements for issuance.

Areas of validation of compliance	No. of CL	No. of CAR	No. of FAR
General description of Project	05	--	--
Technical requirements <ol style="list-style-type: none"> Key project information GIS vector layer Uncertainty of LUF parameters Requirements for LUF smallholder & microscale project Spatial forest/non-forest assessment LUF input & grievance mechanism 	00	01	--
Legal ownership of products generated by the Project and legalrights to alter use of resources required to service the project	00	--	--
Location of Project	00	--	--
Technologies and/or measures	01	--	--
Scale of the Project	--	--	--
Funding sources of Project	--	--	01


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	FM 4.9 Gold Standard Validation Report Template	August 2022
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Application of approved gold standard Methodology (ies) reference of approved methodology (ies) <ul style="list-style-type: none"> a. Applicability of methodology (ies) b. Project boundary 	01		
Establishment and description of baseline scenario	--	--	
Demonstration of additionality	02		--
Data and parameters fixed ex ante	01	01	--
Ex ante estimation of SDG impact	01		--
Monitoring plan <ul style="list-style-type: none"> a. Data and parameters to be monitored b. Sampling plan c. Other elements of monitoring plan 	01	01	--
Duration and crediting period	--	01	--
Safeguarding principles and gender sensitive assessment including assessment of appendix 1 of GS Project PDD	01	02	--
Stakeholder consultation <ul style="list-style-type: none"> a. Local stakeholder consultation b. Stakeholder feedback round c. Continuous input / grievance mechanism 	01	02	--
LUF Additional Information		--	--
LUF Risk and Capacities	01	01	--
Total	15	09	01

3.5. Internal quality control

The final validation report has passed a technical review before being submitted to the project participant and SustainCert. A technical reviewer qualified in accordance with CC IPL’s qualification scheme for GS validation and verification performed the technical review-

4. Validation findings

The design certification renewal criteria(requirements), the means of assessment and the results of design certification renewal are documented in detail in Appendix 1.

4.1 General description of Project

Means of validation	DR, OSV, I
Findings	CL02, CL04, CL08,09 and CL015 are raised and closed satisfactorily.
Conclusion	Based on the review of the GS PDD ^{/01/} , supporting documents and further during on-site inspection/interviews ^{/i-xii/} , the proposed project “Afforestation Project in Tongliao, Inner Mongolia” is located in south of Zhaogensumogacha

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and in the north of Nugusitaigacha Horqin Left Rear Banner^{01/} covering a total of 1,370.96 hectares of area.

In April 2014, 190 hectares of *Populus L.* (commonly known as poplars) were planted in Zhaogensumogacha, located in Horqin Left Rear Banner of Tongliao City. This project was successfully registered as a Gold Standard Project (GS ID: GS3031) in November 2015. In 2016, 1,180.96 hectares of native tree species, including *Pinus sylvestris L. var. mongolica Litv.* (hereafter "*Pinus sylvestris*") and *Populus L.* (hereafter "poplar"), were planted in Nugusitaigacha, Horqin Left Rear Banner of Tongliao City. Of this, 708.44 hectares were *Pinus sylvestris* and 472.52 hectares were poplars. The entire 100% project area is considered as the conservation area.

The planting area consists primarily of sandy land, with no organic soils included within the project boundary. The local villagers, are the owners of the project land and the planted forest.

With duration of 30 years starting from 11/04/2014, the estimated GHG removals for the proposed project are 4,49,706 tCO_{2e} over the crediting period with an annual average of 14,990 tCO_{2e}.

The main objective of project is:

- Mitigate the effects of climate change through carbon sequestration in the tree biomass.
- Restoration of deserted and degraded land areas.
- To create jobs in rural areas through employing local community members in the monitoring activities.

Based on the review of the GS PDD^{01/} and on-site inspection, the proposed project "Afforestation Project in Tongliao, Inner Mongolia" is located in in south of Zhaogensumogacha and in the north of Nugusitaigacha Horqin Left Rear Banner.

"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^{17/} to work together and to ensure that the forest inventory is tracked in a standard way and confirmed and agreed upon between all stakeholders.

VVB, based on the on-site inspection and supporting document^{10//06/11//17/}, 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.

In 2014, the project involved the planting of hybrid poplar trees on degraded lands, including semi-fixed and fixed sand dunes. Local villagers were responsible for carrying out the planting work under the supervision of the project owner, Shanghai Roots & Shoots. This initiative created additional job



	<p>opportunities and income for the local community, as well as introducing advanced forestry technology and land management education for sustainable development in the area. A review of the project implementation plan^{/18/14/} confirmed that the activities were consistent with GS A/R requirements.</p> <p>The government website was checked, VVB further confirmed that once the government issued the village's collective land permit, no one can change the land ownership unless the extreme situation. Thus, villager's land ownership^{/20/} of the project lands is confirmed.</p> <p>Overall, in the opinion VVB, the project description stated in the GS PDD^{/01/} is in compliance with section 6.1.1 (a) of GS4GG Principles & Requirements^{/B01/} and section 4.1.2 (a) of GS4GG LUF Activity Requirements^{/B01/}</p>
--	---

4.2. Technical requirements

a. Key project information

Means of validation	DR, OSV, I
Findings	CL01 and CAR02 have been raised and satisfactorily closed.
Conclusion	VVB, based on the desk review ^{/01/} , confirms that all the information stated on cover page of GS PDD ^{/01/} , including Key Project Information is in line with the GS template and section 6.1.1 (a) of GS4GG Principles & Requirements ^{/B01/} and section 4.1.2 (a) of GS4GG LUF Activity Requirements ^{/B01/} .

b. GIS vector layer

Means of validation	DR, OSV, I
Findings	CL03 and CL06 have been raised and satisfactorily closed.
Conclusion	<p>Based on the review of GIS shapefiles^{/13/}, the forest/ non-forest analysis^{/15//} conducted on the total project area of 1,370.96 ha. Furthermore, based on the above assessment it was found that the eligible area does not include wetlands and appropriately demonstrates the absence of any forest land, 10 years prior to the project activity start date.</p> <p>VVB, based on desk review including the assessment of GIS shapefiles^{/13/} (of project area, eligible area and conservation area), confirms that the shapefiles^{/13/} and project boundary has been appropriately defined and are consistent with the information provided in the GS PDD^{/01/} and in compliance with Annex C of GS4GG LUF Activity Requirements v1.2.1^{/B01/}.</p> <p>VVB based on the review of the report "Eligible planting area assessment.pdf"^{/15/} 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</p>



(paragraph, i - viii) of Annex C of GS4GG LUF Activity Requirements v1.2.1^{/B01/} 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.

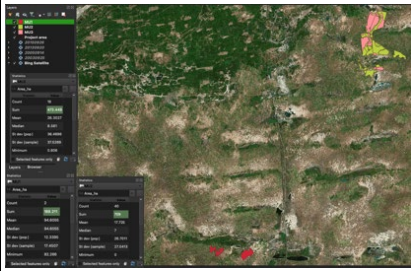
VVB based on the review of the report “Eligible planting area assessment.pdf”^{/15/} detailed the fulfilment of the mentioned requirements, defining the required information adjusted to what is applicable for the project, thus fulfilling the requirements in section 1.1.6 (paragraph, i - viii) in a satisfactory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

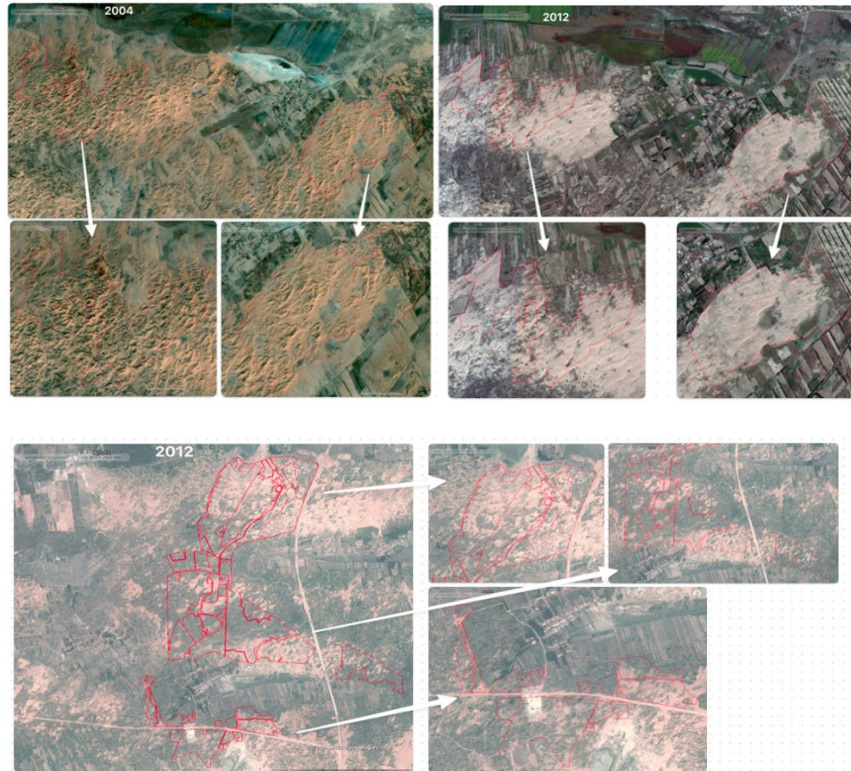


c) Prior conditions started project date

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-Documnt-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).



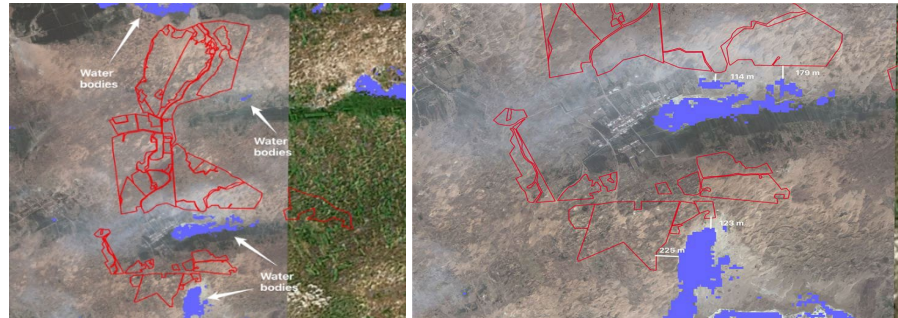
According to the Google Earth imagery available for this area prior the project started date only area available for the period 2004 to 2012 but based in the type of vegetation and land use identifiable in this imagery there the most frequent use found is non-forestland and there another area with crops 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^{13/}, 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 documents¹ provided by the PD. Furthermore, VVB confirms that the GPS coordinates of each site sampled has been checked¹³ and verified from the data sheet.

c. Uncertainty of LUF parameters

Means of validation	DR, OSV, I
Findings	CAR 01 have been raised and satisfactorily closed.
Conclusion	<p>VVB has reviewed the carbon fixation calculation spread sheet⁰³ and has conducted the reliability estimates for species ANNEX A of the GS4GG LUF Activity Requirements^{B01}.</p> <p><i>As per section 1.1.4 of ANNEX A of the GS4GG LUF Activity Requirements^{B01}</i></p> <p><i>To accommodate that measurements are not always available to projects, and IPCC default factors following tier 1 approach do not meet Gold Standard requirements for project data and precision level, this guideline incorporates three approaches for baseline and project activity quantification:</i></p> <p><i>Approach 1: requires on-site measurements to directly document pre-project and project activity data.</i></p> <p><i>Approach 2: uses peer-reviewed publications to quantify baseline and project activity data. Project owners need to prove that the research results are conservative and applicable to the project site and management practice.</i></p> <p><i>Approach 3: default factors to quantify changes but a discounting factor (Uncertainty Deduction) must be applied if compliance with the uncertainty threshold of $\pm 20\%$ at a 90% confidence interval is not satisfied.</i></p> <p>PD has followed the Uncertainty Calculations (Approach 1): In compliance with the section 1.1.6 of LUF activity requirements^{B01} since the pre-project and project activity data were documented using direct on-site measurements⁰⁶ and approach 1 was used to calculate uncertainty. Data is measured in each stratum using the tool "Calculation of the number of sample plots for measurements within A/R CDM project activities" and follows standardized sampling and analysis protocols. The project MUs meets</p>



precision with a maximum error of $\pm 20\%$ at a 90% confidence interval. As per the section 1.1.6 of LUF activity requirements^{B01/} “If $U \leq 20\%U$, the project owner may use the estimated value without any deduction for uncertainty ($UD = 0$)” therefore no deductions resulted in the project since it is in line with requirements of LUF activity requirements^{B01/}.

It was also justified that the PD may opt for IPCC default factors (Approach.3) if applicable, though these tend to be Tier 1 and less precise for project-specific requirements. If these default factors yield an uncertainty greater than $\pm 20\%$ at a 90% confidence interval, Gold Standard mandates a discounting approach to meet its standards^{B01/}.

VVB, during the review of carbon fixation calculation spread sheet^{t03/} and on-site inspection/interview^{i-xiii/}, noted that the following species have been included in the project design:

Sr No	Tree Species
1	<i>Pinus sylvestris</i>
2	<i>Populus spp.</i>

VVB, based on the review of the Lü Wen and Hainan Wu et al^{22/}, *Populus Simonii* in North China, confirms that *Populus simonii* is highly resistant to drought and can thrive in barren conditions. The artificial cultivation of *Populus simonii* has been practiced in northern China for over 50 years. The growth rate of *Populus simonii* is quite high, with the maximum growth period occurring approximately 15 years ago. For example, in Niutan Village, Zhongning County, there is a 14-year-old *Populus simonii* tree that stands at 15 meters tall and has a diameter of 37 cm. In addition, the Sichuan Nursery Farm is home to small-leaf poplars, with 30-year-old trees reaching an average height of 21.3m and a maximum height of 23.6m, as well as an average diameter of 44.1cm and a maximum diameter of 20cm. After conducting a review of the supporting literature, it has been confirmed that the volume of *Populus simonii* trees ranges between 0.00934 and 0.77636 cubic meters when the trees are between 5 and 29 years old. Hence VVB confirms the values to be conservative and plausible.

All other parameters for the carbon calculation such as area (as verified by reviewing the forest/non forest analysis^{15/} and other legal contracts^{14 /}), default values^{01/} (biomass expansion factor, root-to-shoot ratio etc.) have been checked by the VVB and found to be correct.

For the validation, the growth has been assumed to increase in a linear function over 30 years. PD has used the species- specific biomass values for the conservativeness of the calculation approach. Based on the above assessment, VVB confirms that the PD has appropriately demonstrated uncertainty analysis in compliance with ANNEX A of the GS4GG LUF Activity Requirements v1.2.1^{B01/}.

d. Spatial Forest/Non-Forest Assessment

Means of validation	DR, OSV, I							
Findings	CL 03 has been raised and closed satisfactorily.							
Conclusion	<p>VVB, based on the review of Remote Sensing GIS^{/13/}, KML Shapefiles^{/13/} and Forest/ Non-Forest Analysis^{/15/} have assessed that PD has appropriately conducted a forest/non-forest assessment^{/15/} to determine eligible areas to issue GSVERs in compliance with Annex C of the GS4GG Land Use & Forests Activity Requirements, version 1.2.1^{/B01/}.</p> <p>In compliance with Annex C of the GS4GG Land Use & Forests Activity Requirements, version 1.2.1^{/B01/}, VVB confirms that the following information/data have been reported in the PDD:</p> <p>i. Type of sensor used, spatial resolution, path/row, date of the scenes used</p> <p>Satellite Landsat-7-ETM+ Spatial resolution: 30m Path/row: path 125, row 35 Date of the scenes: Scene 1: 25/09/2003 (at least 10 years before the start date of the project for MU 1); Scene 2: 20/09/2013 (at project start date for MU 1); Scene 3: 14/09/2005 (at least 10 years before the start date of the project for MU2 and MU 3); Scene 4: 26/09/2015 (at project start date for MU 2 and MU 3) Sources: http://www.gscloud.cn/search</p> <p>ii. Description of the method and software used in the pre-processing and classification process</p> <p>Software: QGIS Desktop 3.10.2 ENVI version 5.1</p> <p>Pre-processing method:</p> <p>The product processing level is L1TP (Landsat level-1 terrain Precision Correction), and radiation and orthodontic correction is performed using ground control point (GCPs) and digital elevation model (DEM) data to correct terrain displacement before user download the dataset.</p> <p>Classification method: Maximum Likelihood Classification Accuracy assessment method: Confusion Matrix Using Ground Truth ROIs Overall accuracy: (Original shapefiles have been attached)/04/</p> <table border="1" data-bbox="496 1877 1211 1912"> <thead> <tr> <th data-bbox="496 1877 746 1912">Scene</th> <th data-bbox="746 1877 1002 1912">Image date</th> <th data-bbox="1002 1877 1211 1912">Accuracy</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		Scene	Image date	Accuracy			
Scene	Image date	Accuracy						



Scene 1	25/09/2003	93.1973%
Scene 2	20/09/2013	94.5000%
Scene 3	14/09/2005	91.5205%
Scene 4	26/09/2015	90.3904%

Resampling method:

Sieve Classes (Croup Min Threshold:2 Number of Neighbors:8)

Clump Classes (Operator size 3X3)

Ground truth selection resource:

Google Earth: overlapping history image / Google Earth Engine:
Sentinel-2 image (resolution:10m) Tongliao (earthengine.app)

iii. Description of how issues with areas under clouds/shadows were dealt with:

Images with low cloud coverage have been selected and the project area cover no area under clouds/shadows.

In the case of scenes that date 10 years before the project start date, the Project Developer should conservatively consider all areas under shadows/clouds as not eligible

This do not apply for the project area because the image used for the FnF assessment^{07/} apparently do not have cloud.

In the case of scenes at project start date, if the start date is more than 1 year before the start of Preliminary Review, then the Project Developer should conservatively consider all areas under shadows/clouds as not eligible. In such cases, a Project Developer could prove eligibility by conducting a ground- truthing exercise to verify the land-cover for areas under clouds/shadows. The Project Developer shall report on how the ground-truthing was conducted, and which areas were visited (only visited areas can be included in such analysis; sampling is not allowed)

Not Applicable as no cloud cover was found

- **Clearly map all polygons covered by shadows/clouds and present a table with the areas of each polygon and the total area in hectares**

Not Applicable




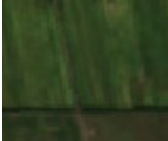




Develop a combined mask for the areas under clouds/shadows in both scenes and apply it to the scenes proceeding to the classification

Not Applicable

iv. Include a map of the classified scenes (10 years before and at project start date) with the forest/non-forest classes before and after



the application of the selected forest definition as MPU (resampling).

Class	From Google Earth	From Google Earth Engine
Forest		
Crop/grass		
Water body		
Other non-forest		

v. Classify the scenes with the original spatial resolution. Then, resample the classification products for each scene. The final non-eligible areas within the project area will be the cumulative forest areas from both classified scenes. Generate a shapefile of the eligible area.

Not Applicable

vi. Include a description of how the accuracy assessment was conducted (e.g. how the assessment points were selected and how the confusion matrix was prepared and interpreted). The accuracy must be calculated and reported on class-by-class and for the overall classification. The accuracy assessment of the classification must be conducted using ground-truth data (surveys) or remote sensing imagery of higher resolution of that used for the classification. The minimum overall accuracy for each class should be 90%.

VVB based on the review of provided GIS files^{13/} confirms that in line with the above requirements PD has appropriately carried out the accuracy assessment and the overall accuracy for each class resulted is more than 90% as provided in the below table:

Overall accuracy (Confusion Matrix Using Ground Truth ROIs):

Scene	Image date	Accuracy
Scene 1	25/09/2003	93.1973%
Scene 2	20/09/2013	94.5000%
Scene 3	14/09/2005	91.5205%
Scene 4	26/09/2015	90.3904%



vii. Provide a shapefile with the points used for the accuracy assessment.

PD provided the shapefiles^{13/}, verified by the VVB and found to be appropriate.

viii. A final table indicating the total area (in hectares) of the project area, modelling units (planting area), and the 10% set aside for the conservation area.

In line with the above requirements, 100% of the project area/eligible planting area of 1370.96 ha^{13/} is considered as conversion area as detailed below:

Total project area (ha)	Modelling units (ha)			Conservation area (hectare)
	MU 1	MU 2	MU 3	
1,370.96	190.00	708.44	472.52	1,370.96 (according to HCV assessment, 100% of the planting area has been managed to enhance the biodiversity of the native ecosystems)

ix. The use of already classified remote sensing products coming from official sources (national/government institutions) is allowed. If this data is used, then the Project Developer shall explain the type of remote sensing imagery used in that analysis, the method, and the accuracy as reported by the original source.

The remote sensing data used is sourced from the official source “Computer Network Information Center, Chinese Academy of Sciences” <http://www.gscloud.cn/search> and the sensor used was Satellite Landsat-7-ETM+ with high appropriate spatial resolution of 30m. The software’s QGIS Desktop 3.10.2 and ENVI version 5.1 are used for processing, the data product is processed at L1TP (Landsat Level 1 Terrain Precision Correction) using GCPs and DEM data for radiometric and terrain displacement corrections before user download, maximum likelihood classification method applied for the classification. As assessed above, the overall accuracy is more than 90% in compliance with the requirements.

x. When using publicly available remote sensing products that show tree cover instead of forest cover (i.e. Global Forest Watch), then a Project Developer should prove that the selected tree cover percentage is representative of the DNA or national host or FAO forest definition, as necessary.

Based on the review of GIS files^{13/} VVB confirms that in compliance with requirements the Project Developer demonstrated selected tree cover percentage as per FAO forest definition “Forest is defined as land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 ha., and the trees should be able to reach a minimum height of 5 m at maturity in situ”

e. LUF input & grievance mechanism

Means of validation	DR, OSV, I
Findings	CAR 1 has been raised and closed satisfactorily.
Conclusion	<p>VVB based on on-site inspection/interviews^{i-xii/} and document review^{/09/}, confirms that the grievances are recorded to their respective grievance expression process book. If the grievances sustain, they are forwarded to the forest officials by monitoring staff to look out for the issues raised. During the project period 3 grievances are received and resolved appropriately by PD^{/09/} the evidence for the same is provided in the PDD as well.</p> <p>Based on a review of the GS PDD^{/01/} and MR^{/01/}, VVB confirms that the PDD the section E.2 and section G.1 of MR outlines the appropriate procedures for collecting, responding to, resolving within a time frame of 7 days, and processing relevant grievances. Additionally, VVB confirms that PD conducted a separate stakeholder consultation on 19/07/2023^{/09/} during the second monitoring period to discuss about the project with stakeholders, received 3 grievance till date and resolved appropriately by implementing the actions such as carbon project awareness programs and slogans posted on the villages of the project region in line with stakeholder consultation requirements^{/B01/}.</p> <p>Based on the above assessment, VVB confirms that the LUF input & grievance mechanism have been appropriately demonstrated in line with ANNEX D of GS4GG LUF Activity requirements v1.2.1^{/B01/} and Section 4.1.34 of GS4GG Principles and Requirements v1.2^{/B01/}</p>

The defined project “Afforestation Project in Tongliao, Inner Mongolia” is categorized under Design Certification Renewal, though the scope of assessment is limited to the following:

4.3 Eligibility of the Project

Means of validation	DR, OSV, I	
Findings	CL 01 and CL 02 has been raised and closed satisfactorily.	
Conclusion	<p>VVB based on document review^{/01/04/06/0713/} and on-site inspection/interviews^{/i-xii/}, confirms that the PD has appropriately demonstrated eligibility of Project. The detailed assessment of eligibility of project is in line with the requirement of section A.1.1 of GS PDD^{/01/} is as follows:</p>	
	As per section 3.1.1 of GS4GG Principles & Requirements^{/B02/}	
	Eligibility Criteria	Compliance



	<p>Types of Projects: Eligible projects shall include physical action/implementation on the ground. Pre-identified eligible project types are identified in the Eligibility Principles and Requirements section.</p>	<p>Based on the desk review^{/01/04/06/} and on-site inspection/interviews^{/i-xii/}, VVB confirms that the project is an Afforestation/ Reforestation project whose activities are implemented on ground. The project includes enrichment planting as part of afforestation.</p>			
	<p>Location of Project: Projects will be located in any part of the China</p>	<p>Based on the on-site inspection/interviews^{/i-xii/} and desk review^{/01//} of the Remote Sensing GIS^{/13/} and KML Shapefiles^{/13/}, VVB confirms that the project is located in Zhaogensumogacha and Nugustaigacha Horqin Left Rear Banner, Tongliao in China.</p>			
	<p>Project Area, Project Boundary and Scale: The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact Quantification Methodologies and Products Requirements. In order to avoid double counting the Project shall not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the Project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst</p>	<p>Based on the on-site inspection/interviews^{/i-xii/}, desk review^{/01/}, Kml files^{/13/} and supportive documents^{/26/}, VVB confirms that the Project Area and Project Boundary have been appropriately defined. Furthermore, based on the review of the double counting declaration letter^{/26/}, and by checking the public website of other emission trading programs. (VCS/Social Carbon /Plan Vivo)^{/B05/}, confirms that the project has not been registered under any other GHG programs and is not seeking registration under any other GHG programs. The verification of area for each MUs was conducted based on recalculating the area of corresponding shapefiles for each MU^{/13/}; the results of area calculated vs area presented in PD and Eligible planting area assessment.pdf^{/15/} are similar, and accordingly a detail is presented in the next table below.</p> <table border="1" data-bbox="957 1780 1396 1915"> <thead> <tr> <th>Modelling units</th> <th>Area (hectare) from PD & FnF assessment</th> </tr> </thead> <tbody> <tr> <td>MU1</td> <td>190.00</td> </tr> </tbody> </table>	Modelling units	Area (hectare) from PD & FnF assessment	MU1
Modelling units	Area (hectare) from PD & FnF assessment				
MU1	190.00				



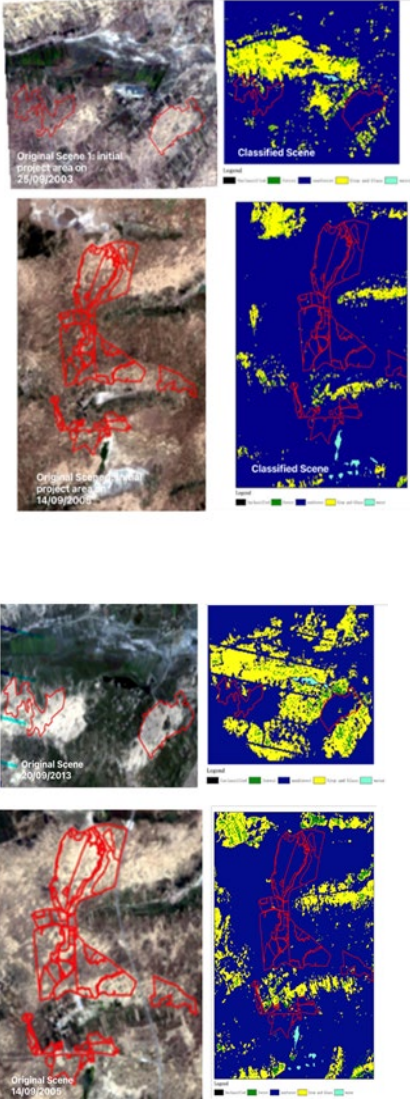
	projects)	<table border="1"> <tr> <td>MU2</td> <td>708.44</td> </tr> <tr> <td>MU3</td> <td>472.52</td> </tr> </table>	MU2	708.44	MU3	472.52
	MU2	708.44				
	MU3	472.52				
<p>Host Country Requirements: Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.</p>	<p>Based on the on-site inspection/interviews^{/i-xii/} and desk review^{/26/20/}, VVB confirms project is in compliance with applicable Host Country's regulations.</p> <p>Furthermore, as per the land tenure laws of Mongolia^{/26/20/}, PD has demonstrated the land under project activity and planted forest is owned by "local collectives".</p> <p>VVB, based on the review of the Forest Law of the People's Republic of China, Law of the People's Republic of China^{/26/} confirms that the project does not require EIA in the host country, and it has been demonstrated through a formal evidence^{/05/} by Forest Law of the People's Republic of China, Law of the People's Republic of China on Desert Prevention and Transformation, Labour Law of the People's Republic of China, Regulation on the Prevention and Control of Forest Diseases and Pests and Regulation on Forest Fire Control.</p> <ol style="list-style-type: none"> http://lyj.pds.gov.cn/contents/18497/366938.html https://mee.gov.cn/ywqz/fgbz/fl/201811/t20181114_673626.shtml http://www.gov.cn/banshi/2005-05/25/content_905.htm https://www.forestry.gov.cn/main/3950/20170314/459886.html http://www.gov.cn/flfg/2008-12/05/content_1171407.htm 					
<p>Contact details As part of the Project Documentation the Project Developer shall provide (i) name and (ii) contact details of all</p>	<p>VVB confirms that PD has provided contact information of project participant in APPENDIX 2 of the GS PDD^{/01/}.</p>					



	<p>Project Participants; and in case of an organization (iii) the legal registration details and (iv) documentation by the governing jurisdiction that proves that the entity is in good standing (defined as being a legal or other appropriate entity registered in or allowed to operate within the required jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its Directors). Gold Standard retains the right (at its own discretion) to refuse use of the Standard where reputational concerns are highlighted.</p>	<p>VVB, during the on-site inspection^{i/-xii/}, has reviewed the project developer certificates which provides the contact details and confirms the document provided is valid and in line with GS4GG requirements^{B01/}</p>
	<p>Legal Ownership: Full and uncontested legal ownership of any Products that are generated under Gold Standard Certification, (for example carbon credits) shall be demonstrated. Where such ownership is transferred from project beneficiaries this must be demonstrated transparently and with full, prior and informed consent (FPIC). Note that for certain Project types there is a requirement for full and uncontested legal land title/tenure to be demonstrated. These are contained within specific Activity or Product Requirements. All projects shall immediately report to Gold Standard any land title/tenure disputes arising.</p>	<p>Based on the on-site inspection/interviews^{i/-xii/} and desk review of PD^{01/}, land titles, agreements, carbon credit ownership^{14/20/26/}, VVB confirms that the PD has provided the legal ownership details in section A.1.2 of the PDD^{01/} deems to be valid and appropriate.</p> <p>PD has also submitted the letter^{26/} of confirmation mentioning that the land user right certificate issued also includes the right to carbon ownership. Based on the review of the Governmental official letter^{26/}, VVB confirms that the land is contracted to Guribanemogacha villagers (along with the list of the personnels) who have all the rights on the land. In conclusion, VVB confirms that the PD has the right to implement the proposed activity and holds full uncontested ownership of generated forest products (VERs) through this activity and in line with the section 2.1.9 & 2.1.10 of GS4GG LUF Activity Requirements^{B01/}</p>
	<p>Other Rights: As well as legal title and</p>	<p>Not applicable</p>



	<p>ownership, the Project Developer shall also demonstrate where required uncontested legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, accessrights, water rights etc.). Any known disputes or contested rights must be declared immediately to Gold Standard by the Project Developer and resolved prior to further project implementation in affected areas.</p>	
	As per section 2 of GS4GG Land Use & Forests Requirements^{/B01/}	
	<p>Eligible project types: Eligible project types are Afforestation & Reforestation Projects (A/R) and Agriculture Projects (AGR).</p>	<p>Based on the desk review^{/01/06/10/13/} and on-site inspection/interviews^{/i-xii/}, VVB confirms that the project is an Afforestation/ Reforestation project whose activities are implemented on ground. The project includes enrichment planting as part of afforestation.</p>
<p>No Deforestation: The eligible area shall not meet the definition of forest 10 years before project start date and at project start date.</p>	<p>Based on the on-site inspection/interviews^{/i-xii/} and desk review^{/01/04/13/}, VVB confirms that the eligibility of the project area (planting area, conservation area) has demonstrated by a remote forest/non-forest spatial assessment^{/15/13/} based on satellite images at the Project level and the same was cross verified by the VVB using GIS software's, as shown in below figures of eligible area for new added project areas. 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-Document-20240430-clean, GIS and Satellite imagery provided, the PD satisfactory has been evidenced that the project activity do not disturb the native ecosystems, furthermore the</p>	


	<p>eligible area are in compliance with criteria of section 2 and 3 of GS4GG Land Use & Forests Activity Requirements (Version 1.2.1).</p> 	<p>Hence, VVB confirms that eligible area does not meet the definition of forest prior to 10 years of project start date.</p>
	<p>Eligible A/R projects:</p> <ul style="list-style-type: none"> • Can include planting trees. • Can include single- species plantations. • Can apply all silvicultural 	<p>Based on the on-site inspection/interviews^{/i-xii/} and desk review^{/01/}, VVB confirms that the project activity includes plantation of native tree species such as <i>Pinus</i></p>



	<p>systems, e.g. conservation forests (no use of timber); forests with selective harvesting; rotation forestry</p> <ul style="list-style-type: none"> All projects can include agriculture (agroforestry) or pasture (silvi-pasture) activities 	<p><i>sylvestris</i> and <i>Poplar</i> spp. Techniques to restore the native species,</p> <p>Furthermore, the proposed activity designed for the conservation objectives with no use of timber or harvesting of timber in compliance with section 2.1.2 (a.i) applied methodology requirements^{/B02/}. This was further confirmed by reviewing projects management plan^{/17/}.</p>
	<p>FSC Dual Certification</p>	<p>Not applicable</p>
	<p>Secured Titles: For all project participants, the following information and evidence shall be provided: (a) Name and contact details Each entity's legal registration number and documentation by the governing</p>	<p>VVB, based on the review of the evidence^{/14/20/}, confirms that PD has appropriately demonstrated the secured legal rights through land user certificates^{/20/} provided by Climate Bridge (Shanghai) Ltd. provided full rights to each participating collective over the project land. This has been further reviewed and confirmed through on-site inspection/interviews^{/i-xii/}.</p>
	<p>Safeguarding Principles & Requirements: The Project Developer shall conduct the Safeguarding Principles Assessment following Safeguarding Principles & Requirements and Risks & Capacities Guideline assessed for the Project Area, taking into account likely issues in the context of the Project Region.</p>	<p>Refer to Assessment of Safeguarding Principles^{/01/} in Appendix 1 of this report.</p>
	<p>Protected Areas: A minimum of 10% of the total Project Area shall be identified and used to protect or enhance the biological diversity following High Conservation Value (HCV) approach.</p>	<p>Based on the on-site inspection/interviews^{/i-xii/} and based on the review of PDD^{/01/}, supporting documents^{/17/} VVB confirms that the 100% of project plantation area is considered as a conservation area (HCV) which is managed to enhance the biodiversity of the native eco-systems.</p>
	<p>Buffer zones for water bodies: The Project Developer shall maintain a buffer zone of 15 meters for water bodies on both sides of any</p>	<p>Based on the on-site inspection/interviews^{/i-xii/}, Shapefile/KML files^{/13/} and based on the review PDD^{/01/17/} VVB confirms that project is large scale and required to</p>



	<p>permanent or temporary water bodies such as lakes, streams, rivers, wetlands, etc., Irrigation channels are excluded from this requirement.</p>	<p>maintain a buffer zone of 15 meters for water bodies, no usage of fertilizer and pesticides and no use of heavy machinery and no cropping or logging activities are allowed as per section 3.1.6 of GS LUF activity requirements^{B01/}, thus VVB based on the review of the Forest/ Non-Forest Analysis Report^{15/}, confirms that 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. Furthermore, there is a small lake located in the southeast of the newly added area. a buffer zone of about 95 meters is made in line with above requirements^{B01/}.</p> 
	<p>Stakeholder inclusivity: The Stakeholder Consultation shall be conducted prior to the project start date. The Project Developer shall refer to Stakeholder Consultation Engagement Requirements for further details.</p>	<p>Based on the desk review^{01/} of supporting documents^{05/}, Records and Response from contacts of Grievances⁰⁹ and on-site inspection/interviews^{i-xii/}, VVB confirms that the project local stakeholder meetings were held to ask for their views, opinions and significant issues if exists. Input Grievance mechanism^{09/} has been introduced to villagers with the introduction of Grievance Expression Process Book, further based on the review of LSC evidence^{09/}, VVB confirms that the Stakeholder Consultations conducted on 10/04/2014 after the project start date for the 1st monitoring period and for the second monitoring period stakeholder consultations are conducted on</p>

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		19/07/2023. Overall, VVB confirms that the project stakeholder inclusivity comply with the requirement of section 3.1 of GS4GG Stakeholder Consultation and Engagement Requirements (version 2.1) ^{/B01/}
	Crediting period: The crediting period shall be a minimum of 30 years and maximum 50 years. The crediting period starts either with the Project Start Date or three years prior to the date of Project Design Certification, whichever occurs later	Based on the review of section C.2 of the PDD ^{/01/} , VVB confirms the crediting period of the project is of 30 years i.e., 11/04/2014 and the end date is 10/04/2044 in compliance with section 3.1.9 of GS4GG LUF Activity Requirements v1.2.1 ^{/B01/} .
	Additionality: Any Project shall demonstrate additionality as per the Principles & Requirements, or GHG Emissions Reduction and Sequestration Product Requirements, as applicable.	Refer to assessment of section 4.10 of this report.

4.4. Incorporation of any relevant updates to the Gold Standard Requirements

Means of validation	DR, OSV, I	
Findings	--	
Conclusion	VVB based on document review ^{/01/} and on-site inspection/interviews ^{/i-xii/} , confirms that the PD has appropriately demonstrated eligibility of Project. The detailed assessment of eligibility of project is in line with the requirement of section A.1.1 of GS PDD ^{/01/} is as follows:	
	As per section 4 of GS4GG Principles & Requirements^{/B02/}	
	Principle 1: Contribution to Climate Security & Sustainable Development	
	Eligibility Criteria	Compliance



	<p>Types of Projects: Eligible projects shall include physical action/implementation on the ground. Pre-identified eligible project types are identified in the Eligibility Principles and Requirements section.</p>	<p>Based on the desk review^{/01/04/13/15/} and on-site inspection/interviews^{/i-xii/}, VVB confirms that the project is an Afforestation/ Reforestation project whose activities are implemented on degraded and deserted land. The project includes enrichment planting as part of afforestation and reforestation.</p>
	<p>Projects shall define their Baseline Scenario and Project Scenario Project area is the degraded grasslands with continued degradation as a baseline conditions.</p> <p>Project Scenario Project area is carried out with the plantation of native tree species i.e. <i>Pinus sylvestris</i> and <i>Poplar</i> spp.</p>	<p>Based on the on-site inspection/interviews^{/i-xii/} supporting literature, Shapefiles/KML files^{/13/} and desk review^{/01/06/}, VVB affirms that the project is situated in Zhaogensumogacha and Nugustaigacha Horqin Left Rear Banner, where grasslands were degraded prior to the commencement of the project activity. VVB, based on the interviews with the respective villagers confirms that the planting of trees has been conducted on the land belonging to local collectives (villagers) to combat desertification and mitigate the effects of climate change.</p>
	<p>Contribution to Climate Security & Sustainable Development: According to Section 4.1.16 in Principles & Requirements, option 1 was opted to elaborate SDG impacts of the project.</p>	<p>Based on the on-site inspection/interviews^{/i-xii/}, desk review^{/01/06/11/} and supportive documents^{/05/11/}, VVB confirms that the project activity helps in contributing to below mentioned SDGs: SDG 13: Climate Action – Increase in the plantation in the area results in combating climate change with the increase in tree biomass. Annual average estimated for the defined goal is 14,990tCO₂e as verified through the carbon calculation sheets^{/04/}. SDG 8: Decent work and economic growth- increase in the total 10 jobs is estimated for this SDG8. Based on</p>



		<p>the review of GSPDD^{/01/} and MR^{/01/}, 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. Therefore, SDG 8 from the project activity is confirmed by the VVB. Hence, rating of this indicator as positive is correct. Further, 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)¹ 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>SDG 15: Life on Land – trends in species diversity in the project region is estimated to be increased with the project activity. Based on the review of GS PDD^{/01/} and 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</p>
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¹ https://www.mohrss.gov.cn/SYRlzyhshbzb/laodongguanxi /fwyd/202410/t20241012_527228.html



		<p>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 statically calculation and accounted the richness, Shannon-Weiner, Simpson and Pielou of the project.</p> <p>Therefore, SDG 15 from the project activity is confirmed by the VVB. Hence, rating of this indicator as positive is correct.</p>
	Principle 2: Safeguarding Principles	
	Eligibility Criteria	Compliance
	(a)Safeguarding Principles Assessment	Refer to Appendix 1. of this document
	Principle 3: Stakeholder Inclusivity	
Eligibility Criteria	Compliance	
(a) Stakeholder Consultation & Engagement The Stakeholder Consultation shall be conducted prior to the project start date. The Project Developer shall refer to Stakeholder Consultation Engagement Requirements for further details.	Based on the desk review of PDD ^{/01/} and supporting documents ^{/05//09/} and on-site inspection/interviews ^{/i-xii/} , VVB confirms that the project local stakeholder meetings were held to ask for their views, opinions and significant issues if exists. Input/ Grievance mechanism has been introduced to villagers with the introduction of Grievance Expression Process Book ^{/09/} and project stakeholder consultation was held on 10 th April 2014 ^{/05/} which is prior to the project start date, therefore the project considered as a “regular project” in with the “principle 3: Stakeholder Inclusivity requirements” set out in section 4.1.42 of GS4GG Principles & Requirements.	



Principle 4: Demonstration of Real Outcome	
Eligibility Criteria	Compliance
(a) Project Start Date The date on which PD has implemented the Project	VVB, based on the review of the evidence ^{/05/} , confirms that stakeholder meeting has been arranged on 10 th April 2014 with the distribution and afforestation of seedlings took place on 11 th April 2014.
(b) Development of Monitoring and Reporting Plan	Based on the desk review ⁰¹ supporting documents ^{/11/17/} and on-site inspection/interviews ^{/i-xii/} , VVB confirms that the project has GS PDD including detailed description of the SDGs estimated with targets and indicators, stakeholder engagement details for plantation activities with their inputs and addressable comments, description, source and values applied for data parameters monitored and to be monitored at each verification.
Principle 5: Financial Additionality & Ongoing Financial Needs	
Eligibility Criteria	Compliance
Financial Additionality According to the section 3.1.16 of Land Use & Forests Activity Requirements (version 1.2.1), the deemed additionality for the proposed project was established	VVB, based on the review of GS PDD ^{/01/} , evidence ^{/19/26/} , registered PDD during the first crediting period confirms the following in compliance with section 3.1.16 of Land Use & Forests Activity Requirements ^{/B01/} : <ul style="list-style-type: none"> The project is located in Less Developed Country (LDCs) or in a region with UNDP Human Development Indicator (HDI) for 2022 is 0.761 therefore the project is in line with section 3.1.16 option.2 (a) requirements. The project does not aim to create a forest for commercial timber purpose or NTFPs and the defined project activities has not been mandated by any law or regulation^{/26/} therefore the project is in line with section
Ongoing Financial Needs	



	<p>The defined project activity designed for certification renewal</p>	<p>3.1.16 option.2 (b,c) requirements.</p> <ul style="list-style-type: none"> The project area is located in the region with a annual precipitation of 373.6mm less than 600mm. the HDI value has been cross checked with http://hdr.undp.org/en/data/profiles/ therefore the project is in line with section 3.1.16 option.2 (d) requirements. Further, annual precipitation has been verified by Blue Green Atlas - The Climate of Mongolia.
	<p>(c) Stacking And Financial Additionality</p>	<p>Overall, VVB confirms that in compliance with section 3.1.16 of LUF activity requirements the project demonstrated the additonality conditions (a), (b), (c) and (d) set out in option.2 positive list. VVB, based on the review of GS PDD^{01/}, evidence⁰⁵ confirms that the revenue received from GS certification is about 370,760 RMB tons, GS VERS with the expected price of 40RMB/ton from GS certification have been invested for defined purposes such as tree plantation, fencing, irrigation system, upholding agroforestry practices and to carry investigation. The revenue received is proportionally divided in different aspects with different percent contribution. Since no revenue is generated from the Gold Standard certification for the 1st monitoring period (2018-2020) issued VERs, a FAR has been raised by the VVB for the next issuance in compliance with the above GS requirements. Stacking And Financial Additionality is not applicable.</p>

4.5. Re-definition of Baseline Scenario and any impact of changes on the Eligibility Principles, Criteria and Requirements

Means of validation	DR, OSV, I
Findings	
Conclusion	<p>As per paragraph 5.1.47 of Gold Standard for Global Goals principles & requirements^{/B01/} 'Re-definition of Baseline Scenario' is requires at design renewal.</p> <p>The baseline scenario as per the registered PDD^{/01/}, Shapefiles/KML files^{/13/}, the baseline scenario has been determined by using A/R CDM 'Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities' (version 01)^{/B05/}.</p> <p>Based on the review of project implementation schedule^{/14/} and management plan^{/14/16/17/}, baseline survey reports^{/15/} and through the interviews^{/i-xii/} with the villagers & personnel of the forest department, confirms that in the baseline scenario, there are only sparse bushes and grasses on the land and the vegetation is distributed in a mosaic fashion across the entire project area. Furthermore, VVB confirms that 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. Henceforth, 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, 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 tCO₂. This is then deducted from the fixation values from trees.</p> <p>VVB based on the on-site investigation^{/i-xii/} and checking the baseline survey report^{/15/}, confirms that the planting areas were mostly sandy land in the baseline scenario, then during the baseline scenario, there was no collection of wood (for firewood, charcoal, etc.) no timber harvesting inside the project area, no agriculture (crop cultivation, shrimp cultivation, etc.), no grazing activities inside the project area.</p> <p>Hence, during the project scenario, there was no leakage caused by collection of wood (for firewood, charcoal, etc.), no timber harvesting inside the project area, no agriculture (crop cultivation, shrimp cultivation, etc.), no grazing activities inside the boundary which is attributable to the A/R project activity. During the on-site investigation, it is observed that the barriers have been set around the planting area to prevent the grazing. And a person is assigned to maintain to the barriers at regular intervals.</p> <p>VVB, based on the on-site inspections^{/i-xii/}, also through the review of the KML</p>



shapefiles^{/13/}, baseline scenario^{/15/}, and other relevant supporting documents^{/18/15/27/28/}, VVB affirms that there has been no re-definition of the Baseline Scenario and no impact of changes on the Eligibility Principles, Criteria, and Requirements. The baseline scenario remains unchanged, with no alterations and only/new areas added in the design certification renewal. PD is maintaining the project area that was planted in 2014 & 2016. 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

Based on the on-site inspection, VVB confirms that the project area is comprised of *Pinus sylvestris* & Poplar 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.

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. In addition, interviews with local villagers^{/i-xii/} 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.

During the on-site inspection^{/i-xiii/}, VVB verified four permanent sampling plots (PSPs) across 3 MUs by measuring diameter at breast height (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. 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. 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 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>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> <p>Henceforth, VVB confirms that there is no change in the baseline scenario from the registered project activity for the methodology. The baseline scenario has been re-evaluated during the design certification renewal of project activity in cognizance with para 5.1.47 of GS principles and requirements version 1.2 ^{/B01/}.</p>
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4.6. Product and Methodology- Specific Requirements

Means of validation	DR, OSV, I							
Findings	CL 07,08, CAR 2 has been raised & satisfactorily closed							
Conclusion	<p>Based on the review of section B.1 of the PDD^{/01/}, PD has appropriately provided references of all methodologies referred as follows:</p> <ul style="list-style-type: none"> • GS AR GHG Emissions Reduction & Sequestration Methodology v2.1^{/B02/} • A/R Methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities”, Version 01^{/B03/} • AR-LUF activity requirements v1.2.1^{/B01/} • Stakeholder Consultation and Engagement Requirements (version 2) • Risks & Capacities Guideline for Land Use & Forest project (Ver 1.0) <p>VVB based on desk review^{/01/B02/} and on-site inspection/interviews^{/i-xii/} confirms that the PD has appropriately demonstrated eligibility of Methodology requirements^{/B02/}. The detailed assessment of eligibility of methodology in line and provided in section B.2 of GS PDD^{/01/} is as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">As per section 2 of GS A/R Methodology, Version 2.1^{/B03/}</th> </tr> <tr> <th style="width: 50%;">Methodology requirements</th> <th style="width: 50%;">Assessment of compliance</th> </tr> </thead> <tbody> <tr> <td>1. Projects shall apply Gold Standard for the Global Goals Principles & Requirements and all other associated and referenced documents.</td> <td>Based on desk review^{/01/} and on-site inspection/interview^{/i-xii/}, VVB confirms that GS4GG principles and requirements^{/B01/B02/} and all associated and referenced documents^{/B01-B05/} have been applied by the PD.</td> </tr> </tbody> </table>		As per section 2 of GS A/R Methodology, Version 2.1^{/B03/}		Methodology requirements	Assessment of compliance	1. Projects shall apply Gold Standard for the Global Goals Principles & Requirements and all other associated and referenced documents.	Based on desk review ^{/01/} and on-site inspection/interview ^{/i-xii/} , VVB confirms that GS4GG principles and requirements ^{/B01/B02/} and all associated and referenced documents ^{/B01-B05/} have been applied by the PD.
As per section 2 of GS A/R Methodology, Version 2.1^{/B03/}								
Methodology requirements	Assessment of compliance							
1. Projects shall apply Gold Standard for the Global Goals Principles & Requirements and all other associated and referenced documents.	Based on desk review ^{/01/} and on-site inspection/interview ^{/i-xii/} , VVB confirms that GS4GG principles and requirements ^{/B01/B02/} and all associated and referenced documents ^{/B01-B05/} have been applied by the PD.							



	<p>2. Projects that include the planting of trees on land that does not meet the definition of a forest at planting start are eligible to apply this methodology. The project area shall meet all of the requirements below for this methodology to be applicable for the calculation of CO₂-certificates from the project.</p>	<p>Based on document review^{/04/07/}, GIS files^{/13/} and on-site inspection/interview^{/i-xiii/} VVB confirms that the project area is degraded land and does not meet the definition of forest 10 years before project start date and at project start date and is therefore considered to be eligible. This was further cross verified by the VVB through GIS analysis^{/04/} to confirm the same.</p>
	<p>3. Projects can apply all silvicultural systems:</p> <ul style="list-style-type: none"> • Conservation forests (no use of timber) • Forests with selective harvesting • Rotation forestry <p>All projects can include agriculture (agroforestry) or pasture (silvopasture) activities.</p>	<p>Based on desk review^{/01/} and on-site inspection/interview^{/i-xiii/}, VVB confirms that project includes afforestation without harvesting and plantations are not used for commercial benefits from timber production, thus comes under conservation forest type of silvicultural system.</p>
	<p>4. Project Areas shall not be on wetlands</p>	<p>Based on the review of the GS PDD^{/01/} and on-site inspection/interviews^{/i-xiii/} and based on the verification of project boundary KML files^{/13/} VVB confirms that the project area does not include wetland. Further, the same was confirmed by the VVB based on the web research Mongolia The Convention on Wetlands, The Convention on Wetlands</p>
	<p>5. Project Areas with organic soils shall not be drained or irrigated (except for irrigation for planting).</p>	<p>Based on the review of the GS PDD^{/01/} and on-site inspection/interviews^{/i-xiii/}, VVB confirms that the project area is mostly sandy land in Horqin. According to the definition of "Organic Soil" in Section 1.1.1 (d) of GS A/R Methodology v2.1, the soil contains at least 12% (by weight) organic carbon. According to the local study², the highest soil in Horqin sandy land contains 0.84% organic carbon (8.42g/kg), which is far below the</p>


² 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.



		<p>organic carbon content requirement of Organic Soil. Thus, VVB confirms that no organic soil is present in the project areas.</p> <p>Based on the review of GS PDD^{/01/}, project land does not contain organic soils. Project activities do not involve any drainage or irrigation. This has been further verified by VVB during on-site inspection/interview^{/i-xiii/}.</p>
	<p>6. Soil disturbance (through ploughing, digging of pits, stump removals, infrastructure, etc.) on organic soils shall be in less than 10% of the area that is submitted to certification (not 10% of the entire project area).</p>	<p>Based on the review of literature^{/28/} and onsite inspections^{/i-xiii/} VVB assessed that Horqin's soil is sand-based and has very little organic matter (0.84%), these soils are not organic soils and therefore soil disturbance condition was not applicable to project. Further, the grassland soils of the native vegetation are degraded sandy chestnut and eolian sandy soils, which are poor in structure, low in soil nutrient content, and weak in water and nutrient preserving capacity. This creates an environment that is less favorable for vegetation restoration and desertification reversion. The native vegetation is sparse-tree grasslands, which have been degraded to typical steppe and temperate steppe deserts^{/28/}.</p>
	<p>7. The most likely scenario without the project (baseline scenario) shall be defined for the project area. This scenario shall not show any significant increase of the Baseline biomass ('tree' and 'non-tree').</p>	<p>In compliance to section 3 of GS A/R Methodology^{/B02/}, PD appropriately demonstrated baseline scenario for the project area in section B.4 of the PDD^{/01/}.</p>
<p>As per Section 3.9 of Methodology for Afforestation/Reforestation (A/R) GHGS Emission Reduction & Sequestration v.2.1. General Requirements for methodology application is as follows:</p>		
<p>Data and parameters fixed ex ante</p>		<p>Assessment of Compliance</p>
<p>B_{tree_BSL,t} : 0.7988</p>		<p>VVB, based on GS PDD^{/01/} and literature review^{/08/} confirmed the value for base tree biomass used for the ex-ante calculation</p>



		is appropriately adopted from project regions published literature LIYu-qiang et al 2005 ^{/08/}
B _{non-tree_BSL,t} : 0.0322		VVB, based on GS PDD ^{/01/} , ER calculation sheet ^{/03/} and literature review ^{/08/} LI Yu-qiang, et al. Study on the Dynamics of Biomass, Calorific Value and Energy of the Psamophyte Communities during Desertification. Arid Zone Research, 2005, 22 ^{/28/} , the value used for aboveground biomass in ER calculation sheet ^{/03/} for sparse bushes is derived from the addition of standing dead wood and AGB of shrubs appropriately. .
R _{tree_BSL} : 0.72		VVB, based on the review of ER calculation sheet ^{/03/} and literature review LI Yu-qiang ^{/08/} , the applied value of Root to Shoot ratio is derived appropriately as the ratio of aboveground and belowground biomass values given in the defined research paper.
ABSL,t: 1,370.96		VVB, based on document review ^{/01/} and cross checking Shapefiles/kml files ^{/13/} confirms that the value for sum of project area is found valid and appropriate.
CF _{tree} : 0.5		VVB confirms that the default value of carbon fraction for baseline tree/non-tree biomass has been applied in accordance with GS methodology A/R v 2.1 ^{/B02/} and is applicable to this project activity.
CF _{non-tree} : 0.4		
V _{tree_Proj,t} : Refer carbon calculation sheet		VVB based on the review of carbon calculation sheet ^{/03/} and review of literature ^{/08/} confirms that the values of V _{tree_Proj,t} is appropriately calculated in line with applied methodology A/R v 2.1 ^{/B03/} ..
Wood Density: 0.3		VVB confirms that the default value of wood density of tree for biomass has been applied in accordance with

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		methodology A/R v 2.1 ^{/B02/} and is applicable to this project activity.
	BEF _{tree} : 1.1	VVB confirms that the default value of biomass expansion factor of tree for biomass has been applied in accordance with methodology A/R v 2.1 ^{/B02/} and is applicable to this project activity
	CCIPL hereby confirms that the selected baseline and monitoring methodology has been previously approved, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for renewal of crediting period. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology and there is no deviation from the selected methodology ^{/B02/}	

4.7. Demonstration of Ongoing Financial Need

Means of validation	DR, OSV, I
Findings	--
Conclusion	Refer to Section 4.4, Principle 5

4.8. Ex-ante estimation of SDG impact

Means of validation	DR, OSV, I			
Findings	CAR 07, Table 3 has been raised and satisfactorily closed			
Conclusion	As per the PDD ^{/01/} , VVB assessed the compliance of section B.6 inline with GS PDD ^{/01/} template instructions as follows:			
	<table border="1"> <thead> <tr> <th data-bbox="478 1516 954 1594">Sustainable Development Goals Targeted</th> <th data-bbox="954 1516 1401 1594">Assessment of SDG Impact</th> </tr> </thead> </table>	Sustainable Development Goals Targeted	Assessment of SDG Impact	
	Sustainable Development Goals Targeted	Assessment of SDG Impact		
13 Climate Action 13.2 Integrate climate change measures into national policies, strategies and planning	Based on the review of section B.6.3 of GS PDD ^{/01/} and CO ₂ fixation spreadsheet ^{t/03/} , VVB confirms that the estimated GHG removals (Biomass) from the project is calculated appropriately as 14,990 tCO ₂ e for 30 years which contributes SDG13. Leakage:			



		<p>Based on the review of section B.6.3 of GS PDD^{/01/}. VVB confirms that no leakage is expected by the project since the project baseline does not include such as collection of wood (for firewood, charcoal, etc.), timber harvesting, agriculture (crop cultivation, shrimp cultivation, etc.) and livestock activities^{/13/} as the project baseline area is the degraded grassland and the situation of degradation will be continued for years.</p> <p>Other emissions: There are no other emissions caused by the project resulting from land preparation techniques, from the use of fertilisers and energy during project activities.</p>
	<p>15- Life on land 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species</p>	<p>Based on the review of section B.6.3 of GS PDD^{/01/} and GIS files^{/13/} confirms that the project activity planted 1,370.96 hectares of native tree species on the sandy land, including pinus sylvestris and poplar. Thus, the baseline deserted land in the project area has been restored due to the project activities, which favours the survival of animals and plants. Therefore, the estimated SDG 15 project outcome is significantly increase in biodiversity.</p>
	<p>8 Decent work and economic growth</p>	<p>Based on the review of section B.6.3 of GS PDD^{/01/} and supporting documents^{/11/} it is expected that a total of 10 forest rangers will be employed and there will be basic training carried out per year for all staff to help them upgrade their skills and knowledge. Thus, the estimated SDG 8 project outcome for number of jobs in the bundled project is 10. Based on the review of GSMR^{/01/} and supporting employment documents^{/11/} VVB confirms that the 11 employment</p>



opportunities as forest rangers were provided during the project period till date.

Further, 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)³ 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/}.

VVB based on the on- site inspection/interviews^{i-xii/} and document review^{01/}, confirms that the maximum number of population believes in inclusive decision making and actively participated in project.

VVB confirms that the ex-ante carbon estimations have been calculated following the Gold Standard Afforestation/Reforestation (A/R) GHG Emission Reduction & Sequestration Methodology, Version 2.1^{B02/}. The detailed estimations have been reviewed from the spreadsheet “Tongliao_CO2-Fixation Calculation-PD-clean-20240423^{03/}”.

Year	Baseline Estimate	Project Estimate	Net Benefit
Year1	3,512	206	-3,306
Year2	0	289	289
Year3	0	794	794
Year4	0	885	885
Year5	0	1,014	1,014
Year6	0	3,482	3,482
Year7	0	4,319	4,319
Year8	0	9,616	9,616
Year9	0	9,878	9,878

³ https://www.mohrss.gov.cn/SYRlzyhshbzb/laodongguanxi /fwyd/202410/t20241012_527228.html



Year10	0	10,178	10,178
Year11	0	11,258	11,258
Year12	0	11,799	11,799
Year13	0	13,875	13,875
Year14	0	14,246	14,246
Year15	0	14,559	14,559
Year16	0	15,608	15,608
Year17	0	16,149	16,149
Year18	0	18,075	18,075
Year19	0	18,371	18,371
Year20	0	18,698	18,698
Year21	0	19,668	19,668
Year22	0	20,197	20,197
Year23	0	21,897	21,897
Year24	0	22,177	22,177
Year25	0	22,442	22,442
Year26	0	26,563	26,563
Year27	0	27,725	27,725
Year28	0	35,705	35,705
Year29	0	35,908	35,908
Year30	0	27,636	27,636
Total	3,512	453,218	449,706
Total number of crediting years	30		
Annual average over the crediting period	117.06	15,107.2	14,990 tCO₂e
In summary, VVB confirms that PD has correctly calculated and considered baseline emissions and Project emissions are plausible and in compliance with section 3.3 of applied methodology ^{/B02/}			

4.9. Monitoring plan

a. Data and parameters to be monitored

Means of validation	DR, OSV, I	
Findings	CAR 01 has been raised & satisfactorily closed	
Conclusion		
	Data and parameters monitored	VVB Assessment
	1. Ai; Aplot,i	Based on the review of GS PDD and MR ^{/01/} supporting documents ^{/13/06/} and further



	MU1 (ha)	MU2 (ha)	MU3 (ha)	
Ai	190	708.44	472.52	
Aplot,i	0.04	0.04	0.04	
				doing on-site inspection/interviews ^{/i-xii/} , 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 Enhancement of biodiversity” sheet provided ^{/06/} and confirms the accuracy and consistency of the information provided. VVB during the on-site inspections ^{/i-xii/} visited the 4 MUs.
2. H _{i,p,j,l} :Height of tree l of species j in sample plot p of stratum i 3. DBH _{i,p,j,i} ; Diameter at breast height of trees l species j, in plot p , stratum i				Based on the review of GS PDD and MR ^{/01/} , Ex-post calculation sheet ^{/03/} , Monitoring Data and Raw field data sheets.pdf ^{/06/} and further doing on-site inspection/interviews ^{/i-xii/} , it is confirmed by the VVB that the DBH has been verified through the diameter tape. Furthermore, the VVB has also interviewed ^{/i-xii/} the MRV personnel involved in such measurement from PD’s side and found them competent to perform such standardized measurements for diameters.
4. N _{i,j} : Trees/ha				Based on the review of GS PDD ^{/01/} , ex-post calculation sheet ^{/03/} and supporting documents ^{/06/07/} , VVB confirms that the values applied for number of trees j, strata l are appropriate. Please refer below assessment.
5. Trends in species diversity				Based on the review of GS PDD ^{/01/} and MR ^{/01/} and according to the Annual Report from 2016 to 2020 of the projects ^{/11/} , there are 22 species of plants in the

		<p>project. According to the biodiversity monitoring data^{/06/} during this monitoring period, there are 38 species of plants found in the project area and further 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 and confirmed that the project area biodiversity is increased.</p>
	<p>6. Area of fire, diseases and pests</p>	<p>Based on the review of GS PDD and MR^{/01/}, supporting documents^{/07/25/} and on-site inspection/ interviews^{/i-xii/}, VVB verifies that PD has effectively managed the fire area, disease and pest by adaptive monitoring. Resulting in prevention and mitigation of fire, disease and pest outbreak in the project area.</p>
	<p>7. Pesticide and Fertilizer consumption</p>	<p>Based on the review of GSPDD^{/01/} and MR^{/01/}, supporting documents^{/07/05/25/} 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.</p>

b. Sampling plan

Means of validation	DR, OSV, I
Findings	--
Conclusion	<p>Based on the review of the PDD^{/01/} the sampling guideline has been designed to meet the Gold Standard requirements^{/B01/B02/} for conducting forest inventories for Design Certification Renewal. As per PDD^{/01/} following process will be followed</p> <p>Based on the on-site inspection^{/i-xii/} and review of the supporting documents and GS PDD and 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</p>



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:

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

Strata: The stratification is based on the farm holder involved in the project activity. A total area of 1,370.96 ha is engaged in plantation forestry.

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	MU2	MU 3
13	4	4	5

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.

Field Measurements: Based on the review of GS MR^{01/} supporting documents^{06/} and further doing on-site inspection/interviews^{i-xii/}, 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.

Based on the on-site inspection, VVB confirms that the project area is comprised of *Pinus sylvestris* and Poplar 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.

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>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>Monitoring frequency The monitoring assessment will be conducted every five years.</p> <p>VVB, based on document review^{/01/20/}, confirms that the sampling plan is in compliance with the applied methodology^{/B02/} and tools^{/B03/}.</p>
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c. Other elements of monitoring plan

Means of validation	DR, OSV, I
Findings	--
Conclusion	Based on the review of section B.7.3 of the PDD ^{/01/} , the elements of monitoring are QA/QC procedures for monitoring including general outlines for data collection for carbon accounting and storage management. VVB confirms that the QA/QC procedures defined are valid and applicable.

4.10. Duration and crediting period

Means of validation	DR, OSV, I
Findings	--
Conclusion	Based on the review of section C.2 of the GS PDD ^{/01/} , VVB confirms that the crediting period of the project is 30 years starting from 11/04/2014 to 10/04/2044.

4.11. Safeguarding principles and gender sensitive assessment including assessment of appendix 1 of PDD

a. Safeguarding Principles Assessment

Means of validation	DR, OSV, I
Findings	CAR 09 & CAR 11 has been raised & satisfactorily closed
Conclusion	The PD has done the safeguarding principles assessment ^{/01/} analysis and represented assessment in Appendix 1 of GS PDD ^{/01/} . The assessment has been performed in accordance with requirements prescribed in the GS4GG Principles & Requirements, Version 1.2 ^{/B01/} & Safeguarding Principles & Requirements, Version 1.2. A detailed assessment of safeguarding principle is provided in Appendix 2.

b. Safeguarding Principles that will be monitored

Means of validation	DR, OSV, I
Findings	--
Conclusion	<p>VVB, based on review of GS PDD^{/01/} and on-site inspection/interviews^{/i-xiii/}, confirms that the following safeguard principles relevant to the project will be monitored:</p> <ul style="list-style-type: none"> • Principle 7.1- Emissions • Principle 9.2 – Vulnerability to Natural Disaster • Principle 9.6 – Pesticides & Fertilisers • Principle 9.10 – High Conservation Value Areas and Critical Habitats <p>Based on the review of the GS PDD^{/01/} and monitoring plan^{/01/}, VVB confirms that the mitigation measures provided in section D.1 of the GS PDD are valid and applicable.</p>

c. Assessment that project complies with GS4GG Gender Sensitive requirements

Means of validation	DR, OSV, I			
Findings	CL 14 has been raised and closed satisfactorily by the VVB.			
Conclusion	Section D.2 of the GS PDD ^{/01/} has been assessed by the VVB in line with Gold Standard for The Global Goals Gender Equality Requirements & Guidelines, Version 1.1 and GS template instructions:			
	<table border="1"> <thead> <tr> <th data-bbox="475 1055 922 1126">GS4GG Gender Sensitive requirement Questions</th> <th data-bbox="922 1055 1401 1126">Assessment of Compliance</th> </tr> </thead> </table>	GS4GG Gender Sensitive requirement Questions	Assessment of Compliance	
	GS4GG Gender Sensitive requirement Questions	Assessment of Compliance		
<p>Question 1 – Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?</p>	<p>Based on the on-site inspection/ interviews^{/i-xiii/}, supporting documents for stakeholder meeting^{/09/05/} and desk review^{/01/}, VVB confirms that the Project takes into account gender roles and the abilities of women and men to participate in the implementation, evaluation and decision making processes of the project activities. For example, the stakeholder consultation in the project design phase includes both women and men participating in the consultation meeting.</p>			
<p>Question 2 – Explain how the project aligns with existing country policies, strategies and best practices</p>	<p>VVB, during the on-site inspection and interviews^{/i-xiii/} and host country laws and regulations^{/26/} observed the project doesn't endorse any form of discrimination based on gender.</p> <p>Furthermore, the project aligns with the labor policies resulting in no</p>			



		discrimination on a gender basis. Law of the People’s Republic of China enforced the rules on women’s rights. The law enforcers right, resource (access & ownership) and representation (increased representation) for women. The project is making efforts to increase women participation and also aiming to increase women leadership in the forestry cooperatives to increase their decision-making power. The above information has been further verified by the VVB ^{/05/} .
	Question 3 – Is an Expert required for the Gender Safeguarding Principles & Requirements?	Based on the on-site observations and interviews ^{/i-xiii/} , VVB confirms that project activity involves the afforestation practices and does not discriminate on the gender basis so expert involvement is not required.
	Question 4 – Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	Based on the on-site observations and interviews ^{/i-xiii/} and supporting stakeholder consultation document review ^{/05/} VVB confirms that the project consists of only afforestation practices and does not involve any activity in relation to discriminate on the gender basis and further confirmed that there are no gender specific issues are raised at stakeholder consultations, thus expert involvement is not required


4.12. Stakeholder consultation

a. Local stakeholder consultation

Means of validation	DR, OSV, I	
Findings	CAR 01 has been raised and closed satisfactorily by the VVB.	
Conclusion	In compliance to GS4GG Stakeholder Consultation and Engagement Requirements Version 2.1 ^{/B01/} , VVB has conducted the assessment of section E of GS PDD ^{/01/} as follows:	
	GS4GG Stakeholder Consultation and Engagement Requirements^{/B01/}	Assessment of Compliance



	<p>A separate stakeholder consultation shall be organized for proposed project.</p>	<p>Based on desk review^{/05//09/} VVB confirms that PD has conducted appropriate local stakeholder consultations for proposed project^{/01/09/05/} in compliance with section 4.1.25 of GS4GG Principles and Requirements v1.2^{/B01/} and section 3.1 of GS4GG Stakeholder Consultation and Engagement Requirements Version 2.1^{/B01/}</p>
	<p>The PD shall submit the stakeholder consultation report for real case project at the time of first submission (i.e., Preliminary review of real case project).</p>	<p>Based on document review^{/B01/} and on-site inspection/interviews^{/i-xii/}, VVB confirms that the PD has provided with the stakeholder consultation report^{/05/} and in line with section 5.1.8 (a) of GS4GG Principles and Requirements v1.2^{/B01/}</p>
	<p>The Gold Standard reserves the right to enforce new stakeholder consultation(s) for regular projects</p>	<p>VVB based on the document review^{/09/} confirms that this is applicable as the project is a regular project.</p>
	<p>A grievance mechanism shall be established and made available for project activity.</p>	<p>Based on the review of the stakeholder consultation report^{/05//09/}, GS PDD^{/01/} and through on-site interviews^{/i-xii/} with the communities, VVB confirms that the grievance mechanism developed by PD is in line with the GS requirements^{/B01/}. The monitoring staff will report inputs and grievances to the General Manager, who is responsible for solving problems and improving the situation. The grievances are recorded and expressed through the Grievance Expression Process book^{/09/} and stakeholder questionnaire survey was held by PD on 19/07/2023^{/09/}. Furthermore, grievances are also recorded through telephone access and is chosen as an optional mechanism.</p>

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b. Summary of stakeholder mitigation measures

Means of validation	DR, OSV, I
Findings	
Conclusion	<p>Based on the review of the stakeholder consultation report^{/09/}, GS PDD^{/01/} and through on-site interviews^{/i-xii/} with the communities, VVB confirms that none of the issues was identified during the LSC meeting held on 10th April 2014. In fact, the major concern was environmental stability and they came to aware that the project improves the environment in the project region.</p> <p>In the opinion of VVB confirms that PD has considered the comments received during consultations and addressed appropriately in line with the requirements of section 3.7 of GS4GG Stakeholder Consultation and Engagement Requirements v2.1^{/B01/}</p>

c. Continuous input / grievance mechanism

Means of validation	DR, OSV, I
Findings	CL 11 has been raised and closed satisfactorily.
Conclusion	<p>Based on the review of the stakeholder consultation report^{/09/B01/}, GS PDD^{/01/} and through on-site interviews^{/i-xii/} with the communities, VVB confirms that the grievance mechanism developed by PD is in line with the GS requirements^{/B01/}. The monitoring staff will report inputs and grievances to the General Manager, who is responsible for solving problems and improving the situation. The grievances are recorded and expressed through the Grievance Expression Process book. A stakeholder questionnaire survey was held by PD on 19/07/2023 during this period. VVB has raised a finding to provide the Grievance expression process book.</p> <p>Furthermore, the grievances are also recorded through telephone access and is chosen as an optional mechanism.</p> <p>In the opinion of VVB confirms, the PD has appropriately set up continuous grievance mechanism and in line with section 3.8 of GS4GG Stakeholder Consultation and Engagement Requirements Version 2.1^{/B01/}.</p>

4.13. LUF Additional Information

Means of validation	DR, OSV, I
Findings	CL-12 has been raised and closed satisfactorily.
Conclusion	As per APPENDIX 3 of the PDD ^{/01/} , the following additional information has been provided by Climate Bridge (Shanghai) Ltd. and further assessed by the VVB:

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Risk of change to the Project Area and activities during Project Certification Period:

Risks of change to the project area described as low as the project developed on designated collective's holdings (villagers land) and land user rights certificates^{/20/} has been issued and the government cannot overrule the same unless national security reasons are involved. There are no major reasons involved in the project activity area. This has been further confirmed through on-site inspection/interviews^{/i-xii/}.

Risk of change to the project activities described as low risk as the communities are well aware of the benefits arising from the project implementation. This has also been confirmed by VVB during the on-site interviews^{/i-xii/}.

Risk of change to the Project activities during Project Certification Period:

Risks of change to the project activities described as NO. The afforestation project is safeguarded by a bilateral agreement. Once the forest is established, the land property cannot be altered unless an uncontrollable event occurs.

Land-use history and current status of Project Area:

VVB based on the on-site inspections/interviews^{/i-xii/}, and desk review of GIS analysis^{/13/15/} confirms that the land use history of project area were degraded sand dunes. In 1950s the deserted land area percentage is 22% increased at the rate of 2.94% annually. In 1990, the deserted area reached 53.8%. Desertification continues to worsen. Stabilized sand dunes, moving sand dunes, and grasslands have decreased, while semi-stabilized sand dunes, farmland, and forests have increased.

The current status of the project area is degraded shrubland and grassland.

Socio-Economic history:

Based on the document review of PDD^{/01/}, literature^{/28/} and onsite inspections/interviews^{/i-xii/} VVB confirms that the main source of income for local communities in the project area has been agriculture and livestock.

In 2011, the GNP was 913 million RMB, food production was 300 million tons, the total livestock count was 2.08 million heads, and the average net income was 5,692 RMB.

By 2023, the GDP had risen to 14 billion RMB, with the per capita disposable income of urban residents at 35,957 RMB and that of rural residents at 19,437 RMB

Forest management applied (past and future)

No management was carried out for the project area as the area is under continuous degradation since 1950s. PD has introduced assisted farmer managed planting/replanting, weeding, pruning, intermediate cutting, pest control and sand dune stabilization etc. Selective harvesting is employed to the project area for better growth of tree species. Tree Stands are managed on the basis of year of plantation.

Year 1-3 : Young Stand



Year 4-10: Middle Stand
 Year 11-15: Near Mature Forest
 Year 16-30: Mature Forest

Based on the review of Tonglia_Management Plan-2014.pdf^{17/} and Tongliao_Management Plan-2016^{17/} provided for the project activity “to sustain the ecological function of the forest, it is crucial to monitor and manage different age classes of forests in distinct ways. It was confirmed by VVB that MTP forestry technicians use information on the poplar species involved in the project and related research to structure the long-term management plan into four stages based on forest age: young forest, middle-aged forest, near-mature forest, and mature forest”.

Forest characteristics (including main tree species planted)

Based on the desk review^{01/13/15/04/} and through on-site inspection/interviews^{i-xii/}, VVB confirms that the forest type under project area is classified as Plantation Forest. The project includes two project area: Zhaogensumogacha project area, planted in 2014 with 190 hectares of land with *Poplar* spp. Nugusitaigacha project area (the new area) planted in 2016 with 1180.86 hectares of land with *Pinus sylvestris* and *Poplar* spp.

Main social impacts (risks and benefits)

Based on the document review of PDD^{01/} and onsite inspections/interviews^{i-xii/} VVB confirms the following:

Risks:

- Herding Practice
- Tree Disease and Contagion
- Difference between expected income generation and actual received

Benefits:

Herding can add waste to the soil behaving as a natural manure for crop nutrition And gap between estimated economic income generated and received has risk in early phases but funds were met by Roots & Shoots and local Forest Bureau. Later the revenue could continuously support long term afforestation practices.

Main environmental impacts (risks and benefits)

Based on the document review^{01/07/} and onsite inspections^{i-xii/} VVB confirms that the project contributes to the reclamation of land under degradation and desertification. Furthermore, the plantation of native tree species will lead to re-establishment of natural habitat for flora and fauna. The project activity will decrease pressure on the ecosystem and will pace up the restoration rate. It also contributes to the mitigation of climate change. Since the carbon sequestration in the project scenario is significantly higher than that in baseline scenario.

Risks: In the initial stages of planting and irrigation may cause some wind and soil erosion and consume underground water, but it will improve the same over time. Further the environmental conditions and project activities in both Zhaogensumogacha and Nugustaigacha areas are identical, resulting in



similar risks.

Financial structure

Based on the review of GS PDD^{/01/} and financial need documents^{/19/} it was confirmed that the project is initially financed by Roots & Shoots for planting and forest maintenance, with potential carbon revenue expected to boost local community income and support long-term forest management, including biodiversity protection. In Nugusitaigacha, the local Forestry Bureau funded the first five years of planting and maintenance, and the future carbon revenue could cover ongoing maintenance costs and further benefit local households.

Infrastructure (roads/houses):

Based on the review of KML files^{/13/}, VVB confirms that the PD has appropriately demonstrated that there are two roads in MU1, four roads in MU2 and MU3 and excluded from the eligible area.

Water Bodies:

Based on the review of KML files^{/13/}, VVB confirms that there is a small lake has been found in Nugusitaigacha project area and in line with GS requirements a buffer of 95m is ensured.

Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:

VVB, based on the review of the LSC report^{/09/05/}, confirms that there are no sites with special significance for indigenous people and local communities.

Where indigenous people and local communities are situated:

VVB, based on the review of the LSC report^{/09/05/}, confirms that there are no sites with special significance for indigenous people and local communities.

Where indigenous people and local communities have legal rights, customary rights or sites with special cultural, ecological, economic, religious or spiritual significance:

VVB, based on the review of the LSC report^{/09/05/}, confirms that there are no sites with special significance for indigenous people and local communities.



4.14. LUF Risk and Capacities

Means of validation	DR, OSV, I	
Findings	CAR 10 has been raised & satisfactorily closed	
Conclusion	As per GS Risks & Capacities Guideline for 'Land Use & Forest' ^{/25/} , VVB has conducted the assessment of LUF Risks and Capacities as follows:	
	Risk and Capacities	Assessment of Risks
	1. Natural Disturbance	
	1.1 Fire Damage	<p>Probability of the risk In line with Risk and Capacities tool^{/25/}, low (score 1) has been considered as the event is expected to occur once or more in 11-20 years. It has been confirmed through on-site inspection/ interviews^{/i-xiii/} and based on the review of statistics from the National Bureau of Statistics (Source https://www.nmg.gov.cn/zwgk/zfgb/2004n_5106/200405/200405/t20040501_271188.html) confirmed that the entire region of Inner Mongolia Autonomous Region has not faced a fire in the last ten years, but within the last twenty years.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/}, medium (Score 2) has been given as once a fire occurs, the impact on the trees in the project area can be fatal and destroy the planted forests. Therefore, VVB confirms that the score for impact of fire risk is appropriate and valid.</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, low (Score 1) has been considered as the magnitude of the fire area is less significant; according to statistics from the National Bureau of Statistics, the percentage of the fire area in the project region does not exceed 1% and therefore the give score is considered valid.</p> <p>Mitigation Measure As per the Risk and Capacities tool^{/25/} and based on review of web reference https://www.nmg.gov.cn/zwgk/zfgb/2004n_5106/200405/200405/t20040501_271188.html, the project region's Regulations on Forest and Grassland Fire</p>



		<p>Prevention, the local government sets the fireproofing period, which is every year from March 15 to June 15 and from September 15 to November 15. Thus, as part of the mitigation measures the project owner will install fireproofing around the forest, and a specially designated person trained to oversee and the same is deemed to be valid.</p>
	<p>1.2 Wind damage (e.g.,hurricanes, typhoon)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, high (Score 3) is considered appropriate and conservative as the event is expected to occur once or more in 10 years, the same was confirmed through the web reference http://www.houqi.gov.cn/zjhq/hqgk/dlqh/ and https://www.cma.gov.cn/2011xwzx/2011xqxxw/2011xtpxw/201804/t20180410_466119.html confirmed that the project region, experiences a temperate continental monsoon climate with less impact from hurricanes and typhoons. In general, trees can be uprooted when wind speeds reach level 10 (24.5-28.4 m/s), and they will only be harmed when they reach level 8 or higher (17.2-20.7 m/s) this type of strong winds occurred less frequently than ten days a year after 2004^{/13/}.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/}, low (score 1) has been given as strong winds generally damage the branches of a few trees (on the periphery) and do not have a devastating impact on all trees.</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is low (score 1) as strong winds may only harm the branches of peripheral trees due to the protection provided by surrounding woods, rather than having a significant effect on the entire tree. The local government has prepared emergency plans for a variety of potential meteorological catastrophes, issues disaster alerts to mitigate the risk.Hence VVB validates the score of 1 (Low).</p> <p>Mitigation measures VVB through on-site inspection Interviews^{/i-xii/} and review of risk capacities tool^{/25/} considering the strong wind in the project area, as a mitigation measure some poplar seedlings can be cut to 1 meter to avoid wind</p>



		damage to the seedlings.
	1.3 Animals (e.g., domestic or wild animals' encroachment)	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, medium (Score 2) considered as the event is expected to Event is expected to occur once in 11-20 years, since because there are residential areas within 5 kilometers of the project site and livestock may damage the planted seedlings. The same was confirmed during the onsite inspections^{/i-xii/} hence the score considered to valid by the VVB.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/}, the impact of the risk is considered low (score 1) appropriately as the has been considered as livestock gnawing on tree seedlings will not cause complete project failure, and GHG benefits are expected to recover naturally within five years without intervention.</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is considered as low. As The gnawing of tree seedlings by livestock is expected to affect less than 5% of the projected is expected to be harmed. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation measures VVB based on the on-site inspection Interviews^{/i-xii/} confirms that as a mitigation measure for this risk, fences have been set up to aid vegetation restoration, and sand-blocking devices prevent dune migration. Forest rangers conduct daily patrols to deter livestock from feeding on seedlings.</p>



	<p>1.4 Pest and disease outbreaks (e.g., insects, bacteria, viruses, fungi)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, high (Score 3) has been considered as the event is expected to occur once or more in 10 years. The data from the National Bureau of Statistics confirms that in the forest areas of Inner Mongolia Autonomous Region, there are incidences of Pest and disease within 10 years. The same has been confirmed during on-site inspection/interviews^{/i-xii/}.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/}, the impact of the risk on destruction of the products/GHG benefits is considered low (score 1) appropriately since pests and diseases can damage trees by inhibiting photosynthesis and slowing growth, but they rarely cause significant harm to forests overall.</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is low (score 1) as the event is expected to affect less than 5 % of project area. the same was supported through the data from the National Bureau of Statistic shows that pest and disease affect less than 5% of the total forest area in Inner Mongolia Autonomous Region, with significance of fire occurrences being minimal. Hence VVB validates the risk score 1 (low).</p> <p>Mitigation measures Project mitigation measures adopted includes placing the seedlings under strict quarantine and have forest rangers conduct daily checks. Use low-toxicity, high-efficiency pesticides for prevention, and promptly identify and treat any diseases or pests, the same has been confirmed and validated by VVB during on site inspection/interviews^{/i-xii/}.</p>
	<p>1.5 Temperature extremes (e.g., extreme heat, frost)</p>	<p>Probability of the risk In line with Risk and Capacities tool^{/25/}, this risk is not applicable based on the review of web reference http://wza.siping.gov.cn/esd/sp/stsp/yllh/sk/202009/t20200907_453543.html and https://bbwmsj.cbq.cn/show/1076-2384909.html it has been confirmed that the project region</p>



		<p>experiences annual temperatures of 6.8°C, with January averaging -12.9°C and July 23.4°C. Extreme temperatures have reached 38.2°C and -32.7°C. The <u>Pinus sylvestris and Poplar trees planted are drought- and cold-resistant, with Pinus sylvestris enduring -40 to -50°C and Populus tolerating -36 to 40°C. however both planted species are highly adaptable to harsh climates, therefore the score of 0 (not applicable) deems to be valid by the VVB.</u></p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/}, as assessed above the impact of this risk on destruction of the products/GHG benefits is considered as low. Hence VVB validates the score 1 (Low).Scale of the risk In line with the Risk and Capacities tool^{/25/}, as assessed in above probability the scale of the risk is low. Hence validates the risk score 1 (Low).</p> <p>Mitigation Measures: Since the score of this risk is less than 6 the mitigation measures are not required as per the risk capacities tool^{/14/} however PD conservatively adopted the measures like painting tree trunks white and wrapping them with grass ropes help slow down temperature fluctuations in the tree body.</p>
	<p>1.6 Water extremes (e.g. droughts, heavy rains, floods, mudslides, avalanches, ice-storms)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, the probability of this risk is considered as low (Score 1) as event is expected to occur less than once every 20 years. Since the planting region may experience drought due to local weather conditions, the planted trees were frequently irrigated to ensure their growth. Furthermore, this risk might be deemed low because the tree species that will be planted are those that are well-suited to the dry conditions as already mentioned. The project region lacks water bodies, but it has an abundance of groundwater resources, which has been used for irrigation and will continue to be adequate for the duration of the project.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/} the impact of the risk is low as selected tree species have drought resistant varieties with deep root systems, the impact of this risk is relatively low. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk</p>



		<p>In line with the Risk and Capacities tool^{/25/}, the scale of the risk is low, as the selected tree species have drought resistant varieties with deep root systems, the scale of this risk is relatively low Hence VVB validates the risk score 1.</p> <p>Mitigation measure Since the total score of risk is less than 6, thus no mitigation measures are required as with Risk and Capacities tool^{/25/}. Subject to closure of all findings</p>
	<p>1.7 Changing climate (e.g. long draught period, seasonal variability of rainfall pattern, water availability)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, low (Score 1) has been considered based on the web reference of http://www.houqi.gov.cn/zwgk/zfxxgk/fdzdqknr/zfwj/202308/t20230807_441882.html confirms that the deep root systems and drought resistance of the chosen tree species reduce the likelihood that the risk will result in more frequent fire incidents and as event is expected to occur less than once every 20 years. VVB has further corroborated this by on-site inspections and interviews^{i-xiii/}.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/} the impact of the risk on is low as the event is expected to harm the products/GHG benefits, but do not lead to full destruction. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk In line with Risk and Capacities tool^{/25/} the scale of the risk is low considered as the event is expected to affect less than 5 % of project area. Hence VVB validates the score 1 (Low).</p> <p>Mitigation measures Since the total score of risk is less than 6 so no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>
	<p>1.8 Earthquake and induced landslides</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/} medium (Score 2) has been considered as the event is expected to occur once in 11-20 years and the same was confirmed based on the review of web reference of https://www.nmg.gov.cn/zwgk/zfgb/2020n/202011/202006/t20200605_307292.htm , data indicates that the left rear banner of Horqin has only experienced one significant earthquake, a 5.3 magnitude earthquake that took place in 2013. The project region is surrounded by rather flat, sandy ground without any mountains, thus there is no chance of mudslides or landslides occurring.</p>



		<p>The same was confirmed during the onsite inspections^{i/xii/}.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/} the impact of the risk is low as the Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, and benefits are expected to recover without intervention in less than 5 years based on the current levels, since due to the lack of afforestation in the project area in 2013, the impact on the project area is limited. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is low as earthquakes around magnitude 5 generally do not have an impact on the project area and the event is expected to affect less than 5 % of project area. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation Measures Since the total score of risk is less than 6 thus no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>
	<p>1.9 Geological risk (e.g. volcanic eruption, desert progression)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/} low (Score 1) has been considered as the event is expected to occur less than once every 20 years, the same was confirmed based on the review of literature reference, Lv Jiaxin, Li Xiufen, Zheng Xiao, Nie Zhe&Liu Siqiang (2020). Temporal and spatial changes and driving forces of vegetation in Horqin Sandy Land in recent 40 years Journal of Ecology (05), 1399-1408 the volcanic eruption is not a possibility because the Horqin left rear Banner is not surrounded by any active volcanic craters. Local research indicates that since 1981, the flora in Horqin's sandy terrain has been largely regenerating, indicating a very minimal chance of desertification in the area.</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/} the impact of the risk on is low. As the selected tree species, suited for sandy areas, have deep roots that aid in preventing desertification. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, low (score 1) as the risk of desertification in the project area is</p>



		<p>very low. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation Measures Since the total risk score is less than 6 thus no mitigation measures are required as per with Risk and Capacities tool^{/25/}.</p>
	2. Political risks	
	<p>2.1 Political interventions (e.g. wars, riots, civil strife, terrorism, corruption, land occupation, community resistance)</p>	<p>Probability of risk In line with Risk and Capacities tool^{/25/}, this risk is considered as not applicable based on the review of web reference http://www.npc.gov.cn/zgrdw/huiyi/lfzt/dqgxfxa/2012-12/19/content_1747502.htm since there are no unlawful circumstances, such as land grabbing, and the project area has always been in a tranquil region with stable governmental authority. Hence VVB validates the score of 0 (not applicable).</p> <p>Impact of the risk In line with Risk and Capacities tool^{/25/}, the impact of the risk on is medium, even if the risk occurs, it is expected to harm the trees, but does not lead to full destruction of GHG benefits. Hence VVB validates the score 2 (medium).</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also medium as described above, some of the project area will be impacted Hence VVB validates the risk score 2 (medium).Mitigation measure: Since the total score of risk is less than 6, thus no mitigation measures are required as per with Risk and Capacities tool^{/25/}.</p>
	<p>2.2 Confiscation of property (e.g. expropriation, infrastructure development)</p>	<p>Probability of risk In line with the Risk and Capacities tool^{/25/}, low (Score 1) has been considered as as the event is expected to occur less than once every 20 years, the same was confirmed based on review of web reference of https://www.gov.cn/xinwen/2019-12/28/content_5464831.htm indicates that the Horqin Sandy Land area is unsuitable for road and infrastructure development, and the local government currently has no land purchase plans for the project area. Hence VVB validates the score of 1 (low).</p>



		<p>Impact of the risk</p> <p>In line with Risk and Capacities tool^{/25/} the impact of the risk on destruction of the products/GHG benefits is low considered since according to the Law of the People's Republic of China on Forests^{/26/}, units that destroy forests should restore them, and environmental governance should be carried out to eliminate their negative impact on the ecological environment. For this reason, VVB validates the score of 1 (Low) if the future project area involves road construction and the impact on the scope and scale of is very small.</p> <p>Scale of the risk</p> <p>In line with the Risk and Capacities tool^{/25/} based on the above assessment the scale of the risk is considered low as the event is expected to affect less than 5 % of project area. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation Measure:</p> <p>Since the total score of risk is less than 6 so no mitigation measures are required as per with Risk and Capacities tool^{/25/}.</p>
	2.3 Irregular resettlement	<p>Probability of risk</p> <p>Not applicable as no person or organization is permitted to trespass on forest territory, according to People's Republic of China's Forest Law^{/26/}. Additionally, the harsh environment of Horqin Sandy Land discourages habitation in the project area. Hence VVB validates the score of 0 (not applicable).</p> <p>Impact of the risk</p> <p>In line with the Risk and Capacities tool^{/25/} as assessed above, the impact of this risk is minimal, as the event is not applicable thus the VVB validates the score as low (score1).</p> <p>Scale of the risk</p> <p>In line with the Risk and Capacities tool^{/25/} as described above, the scale of this risk is considered low, so the VVB validates the score as low (score1).</p> <p>Mitigation Measure:</p> <p>Since the total score of risk is less than 6 so no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>



	<p>2.4 Exploitation of natural resources (e.g mining, water, oil)</p>	<p>Probability of risk In line with the Risk and Capacities tool^{/25/} this risk is considered as not applicable, based on review of web reference https://www.gov.cn/xinwen/2019-12/28/content_5464831.htm Article 39 of the People's Republic of China's Forest Law states that it is against the law to partake in operations that harm trees and forests, including quarrying, sand and soil mining, land reclamation, and deforestation. Therefore, VVB confirms that there are no mining or exploitation activities within the project district, and therefore the risk is considered as irrelevant..</p> <p>Impact of the risk In line with the Risk and Capacities tool^{/25/} as per the Article 74 of the Law of the People's Republic of China on Forests^{/26/}, if trees in the project area are damaged due to activities like farming or mining, the local forestry bureau will order the offender to stop and replant trees, exceeding twice the number damaged. Thus, the risk is considered low (score 1) and same was deemed to be acceptable by VVB.</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of this risk considered as low (Score 1), the appropriateness of the same has been assessed above, thus the VVB validates the , scale of the risk as low.</p> <p>Mitigation measures Since the total score of risk is less than 6 so no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/} however as mitigation measure the project owners will ensure efforts to strengthen forest management and prevent and stop the destruction of forest resources.</p>
	<p>3. Project Management risks</p>	
<p>3.1 Project failure due to:</p> <ul style="list-style-type: none"> insufficient internal technical capacity (e.g.due to high fluctuation of season workers or permanent 	<p>Probability of the risk: In line with the Risk and Capacities tool^{/25/} this risk considered as not applicable (0) and since Roots & Shoots, local forestry Climate Bridge (Shanghai) Ltd., and the Grassland Bureau oversee all technical aspects of inquiry, monitoring, record-keeping, and training, therefore it is deemed not applicable. Each participant is responsible for the project activities throughout the crediting period. Hence the VVB the</p>	



	<p>staff, not sufficient training), OR</p> <ul style="list-style-type: none"> • dependency on continuous external technical support 	<p>validates the score 0. Thus, there is no risk.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} the impact of the risk is low. as the project has been well implemented during this monitoring period from 11/04/2014 to 31/12/2023, therefore the risk is minimal. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also low. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation measures Since the total score of risk is less than 6 so no mitigation measures are required as per with Risk and Capacities tool^{/25/}.</p>
	<p>3.2 Project failure due to dependency on key technical individuals in the organization that are difficult to replace.</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, this risk is considered as not applicable since the project team having numerous technical staff members who have been creating NBS projects for more than five years at Climate Bridge (Shanghai) Ltd. The same has been confirmed by VVB during on-site inspection/interviews^{/i-xiii/}. Therefore, VVB validates the score 0.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} the impact of the risk on destruction of the products/GHG benefits is low. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also low. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation measure: Since the total score of risk is less than 6 so no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>
	<p>3.3 Project failure due to:</p> <ul style="list-style-type: none"> • to the lack of technical equipment (e.g machinery), OR 	<p>Probability of the risk In line with Risk and Capacities tool^{/25/}, this risk is not applicable, as the project includes only plantation techniques, which does not require much equipment. Basic equipment for forest monitoring is available to the PD. The same has been confirmed by VVB during on-site inspection/interviews^{/i-xiii/}. Hence, VVB</p>



	<ul style="list-style-type: none"> planting material (e.g import barriers such as taxes, bureaucracy) 	<p>confirms the risk score is not applicable.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} the impact of the risk on destruction of the products/GHG benefits is low as the project has been well implemented during this monitoring period from 11/04/2014 to 31/12/2023. The same has been confirmed by VVB during on-site inspection/interviews^{/i-xii/}. Therefore, risk is minimal. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk: Not applicable</p> <p>Mitigation measures: Since the total score of risk is less than 6 so no mitigation measures are required as per the requirement of Risk and Capacities tool^{/25/}.</p>
	<p>3.4 Project failure due to:</p> <ul style="list-style-type: none"> insufficient internal financial accounting and management capacity, or dependency on continuous external financial accounting and management support 	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/} This risk is considered as "Not applicable" as confirmed during the onsite inspections^{/i-xii/} and document review^{/11/} VVB confirms that the Shanghai Roots & Shoots secured initial funding for afforestation in Zhaogensumogacha, while the Local Forestry Bureau funded Nugusitaigacha. From November 4, 2014, to December 31, 2023, all planting and early maintenance costs have been met, with proceeds from carbon credit sales covering ongoing maintenance. Monitoring and surveys during the crediting period are conducted by Shanghai Roots & Shoots and Climate Bridge (Shanghai) Ltd. Both organizations have strong financial stability and a proven track record in fundraising and project management, ensuring independence from external support.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} as assessed above, the impact of the risk on destruction of the products/GHG benefits is low. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also low. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation measure: . Since the total score of risk is less than 6 so no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>



	<p>3.5 Project failure due to dependence on key financial accounting and management expertise of individuals in the organization that are difficult to replace</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/} this risk is evaluated appropriately as not applicable since as a public benefit organization, Shanghai Roots & Shoots maintains transparent financial expenditures, with oversight by internal financial staff. The local forestry bureau conducts open bidding for fund allocations, and all expenditures are audited by an independent audit department, ensuring no financial risk. The same was confirmed during the onsite inspections^{/i-xii/} ..</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} the impact of the risk is low, as confirmed during the onsite inspections^{/i-xiii/} and document review^{/11/} VVB confirms that Shanghai Roots & Shoots and the Local Forestry Bureau successfully raised funds for initial afforestation in Nugusitaigacha and Zhaogensumogacha. During this monitoring period, all planting and early forest maintenance were well-funded. While future tree growth may be affected if funding for management is compromised, the current afforestation achievements will remain largely unaffected. Hence VVB confirms a low risk score of 1.</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, the scale of this risk is considered as Low (Score 1) As described above, the VVB validates the scale of the risk is very low.</p> <p>Mitigation measure: Since the total score of risk is less than 6 thus no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>
	<p>3.6 Project failure due to:</p> <ul style="list-style-type: none"> • insufficient internal legal management capacity, OR • dependency on continuous external legal management support 	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, Low (Score 1) has been considered as the landowner has approved afforestation, and the local forestry bureau holds long-term legal management rights. The project is managed by experienced forestry experts. Regular assessments by advisors from Oregon State University and the Cold and Arid Regions Environmental and Engineering Research Institute minimize management risks during the project period. The same has been confirmed during</p>



		<p>the onsite inspections^{/i-xiii/} Hence the VVB validates the score of 1 (Low).</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} as assessed above the impact of the risk on destruction of the products/GHG benefits is low as the project has been well implemented during this monitoring period. The same has been confirmed during the onsite inspections^{/i-xiii/} Hence, VVB validates the risk score 1 (Low).</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, as assessed above, the scale of the risk is also low. since it is confirmed that the project has been well implemented during this monitoring period. The same has been confirmed during the onsite inspections^{/i-xiii/} and through the desk review^{/01/15/06/09/}. Hence validates the risk score 1 (Low).</p> <p>Mitigation measure: Since the total score of risk is less than 6 thus no mitigation measures are required as per requirements of Risk and Capacities tool^{/25/}.</p>
	<p>3.7 Project failure due to dependence on key legal management individuals in the organization that are difficult to replace</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, this risk is considered is not applicable, given that the project was executed effectively over the monitoring period, which ran from November 4, 2014, to December 31, 2023. A change in one management won't affect the project's outcome because it involves numerous managers. The same has been confirmed during the onsite inspections/interview^{/i-xiii/} and desk review^{/01/06/09/12/}. Hence, VVB validates the score of 0 (not applicable).</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} as assessed above the impact of the risk on destruction of the products/GHG benefits is low as the project has been well implemented during this monitoring period from 11/04/2014 to 31/12/2023 The project has multiple managers, ensuring that its outcome remains unaffected by the change of any single manager.. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, as assessed above the scale of the risk is also low.</p>



		<p>Hence validates the risk score 1 (Low).</p> <p>Mitigation measure: Since the total score of risk is less than 6, thus no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>
	<p>3.8 Project failure due to:</p> <ul style="list-style-type: none"> insufficient internal capacity to support to maintain third-party certification, OR dependency on continuous external support to support to maintain third-party certification 	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, as assessed in the above, this risk considered as not applicable since the project participants have sufficient funds to maintain third-party certification. Currently, this is the third time for a third-party certification. The same have been confirmed the during the onsite inspections^{/i-xiii/} and document review^{/11/}. Therefore, it is confirmed that this risk does not exist.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} as assessed the probability, the impact of high (score 3) has been considered as if the project lack of the third-party certification, the project will fail to develop. Hence the score of 3 (high) was deemed to be acceptable.</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, as assessed the scale of the risk is considered as high (score 3) as if the project lack of the third-party certification, the project will fail to develop. Hence the score of 3 (high) was deemed to be acceptable</p> <p>Mitigation measure: VVB based on the review of financial documents^{/25/} it has been confirmed that the PD to ensures sufficient funding for third-party certification as a mitigation measure.</p>
	<p>3.9 Project failure due to dependence on key individuals to support to maintain third-party certification in the organization that are difficult to replace</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, it's not applicable as there are multiple individuals in the project team to maintain third-party certification and therefore the risk doesn't exist. The same ha eben confirmed the during the onsite inspections^{/i-xiii/}. Hence the score of 0 (not applicable) was deemed to be acceptable</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} as assessed above, the impact of the risk on destruction of the products/GHG benefits is low. Hence, VVB validates</p>



		<p>the score 1 (Low).</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also low. As described above, the scale of the risk is minimal. Hence validates the risk score 1 (Low).</p> <p>Mitigation measure: Since the total score of risk is less than 6 so no mitigation measures are required as per the requirements of Risk and Capacities tool^{/25/}.</p>
	4. Financial risks	
	<p>4.1 Late achievement of the project cumulative cashflow break-even point</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, the probability of this risk considered as medium (score 2) is considered as the project achieve break-even within 5 years from the date of the gold standard certification. The same has been confirmed during on-site inspection/interviews^{/i-xii/} and supporting ongoing financial documents^{/11/}.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} as assessed above the impact of the risk is low, since if follow-up funding is lacking, tree growth may be affected later, but the current afforestation results will remain largely intact and can be restored once funds are provided.</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, as assessed above the scale of the risk is medium (score 2), without subsequent management funds, tree growth may be hindered. Hence VVB validates the score of 2.</p> <p>Mitigation measure: As a mitigation measure, the project developed as to become a GS project to get sustained carbon revenue throughout the project period.</p>



	<p>4.2 Lack of secured continued financial resources for project implementation until the project's the cumulative break-even cash flow (for profit projects) / total cost until end of crediting (non-profit projects)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, the probability score of 1 (low) as the project secured continued financial resources for project implementation from the Local Forestry Bureau, Roots and Shoots organisations^{/11/} hence the VVB validates the score 1 (low).</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/} the impact of the risk is low. Since, if follow-up funding is lacking, tree growth may be affected later, but the current afforestation results will remain largely intact and can be restored once funds are provided. Hence VVB validates the score 1 (Low).</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also medium. As assessed above, without subsequent management funds, tree growth may be hindered. Hence the VVB validates the score of 2 (medium).</p> <p>Mitigation measure: VVB validates the mitigation measure, the project developed as a GS project to get sustained carbon revenue throughout the project period.</p>
5. Market risks		
	<p>5.1 Lack of liquidity/financial resources due to price variations (e.g. crop/timber produced, CO2-certificates, fertilizer, machines)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, Low (Score 1) has been considered since the project doesn't involve machinery, or lumber production, initial funding comes from government investment and public welfare funds and there was no shortage of financial resources during the first five years^{/11/}. However, the availability of funds beyond this period may depend on the price of CO2 certificates. Hence VVB validates the score 1.</p> <p>Impact of the risk: In line with the Risk and Capacities tool^{/25/}, low (Score 1) has been considered as event there is a lack of follow-up funding for the project, tree growth may be hindered. If subsequent funds are provided, the afforestation results can be restored within 5 years. Hence VVB validates the score 1 (low).</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, the scale of the risk is considered medium (score 2). As assessed above, if there are no subsequent management funds, the trees may not grow well.</p>



		Hence VVB validates the risk medium (score 2). Mitigation measure: As mitigation measure, PD strive to improve the quality of the project itself and increase carbon prices.
	5.2 Project failure due to competing commodities (e.g palm oil, soya)	Probability of the risk In line with the Risk and Capacities tool ^{/25/} , it is considered not applicable as the project is a public welfare afforestation project that does not involve commodities production including the timber. Thus, the risk is not applicable. Hence, project failure due to the same risk does not exist and the same has been confirmed by VVB during on-site inspection/interviews ^{/i-xiii/} . Impact of the risk: Not applicable Scale of the risk: Not applicable Mitigation measure: Not applicable
	5.3 Project failure due to competing infrastructure (e.g settlements, roads)	Probability of the risk In line with the Risk and Capacities tool ^{/25/} , it's not applicable as no person or organization is permitted to trespass on forest territory, as per the People's Republic of China's Forest Law ^{/26/} . Furthermore, project region Horqin Sandy Land is unsuitable for the habitation. Hence, project failure due to competing infrastructure does not exist and the same has been confirmed by VVB during on-site inspection/interviews ^{/i-xiii/} . Impact of the risk: In line with Risk and Capacities tool ^{/25/} , the impact of the risk is low. As assessed above, the scale of the risk is minimal. Hence VVB validates the score 1 (Low). Scale of the risk:



		<p>In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also low. Hence VVB validates the risk score 1 (Low)</p> <p>Mitigation measure: Since the total score of the risk is less than 6, therefore no mitigation measures are required as per the requirement of Risk and Capacities tool^{/25/}</p>
	<p>1. Other risks</p>	
	<p>6.1 Any other specific project risk that endangers the viability of the project (e.g. project failure due to crop robbery/illegal timber logging, due to disputes with the cooperative)</p>	<p>Probability of the risk In line with the Risk and Capacities tool^{/25/}, low (Score 1) has been considered as per the Law of the People's Republic of China on Forest^{/26/}, no individual or unit is permitted to illegally log trees. Therefore, the risk in the project area is very low. The same has been confirmed by VVB during on-site inspection/interviews^{/i-xii/}. Hence, VVB validates score 1.</p> <p>Impact of the risk: In line with Risk and Capacities tool^{/25/}, the impact of the risk on destruction of the products/GHG benefits is high. Hence VVB validates the score 3 (high) as the tree harvesting would be detrimental to the project's success.</p> <p>Scale of the risk: In line with the Risk and Capacities tool^{/25/}, the scale of the risk is also low. As the projects area affected by illegal logging by individuals is generally very small. The same has been confirmed by VVB during on-site inspection/interviews^{/i-xii/}. Hence VVB validates the risk score 1 (Low).</p> <p>Mitigation measure: As a mitigation measure PD hires forest rangers for daily patrols^{/11/} and prevents illegal logging. In accordance with section 11.1.1 of GS4GG GHG Emissions Reductions & Sequestration Product Requirements v2.3, PD has deposited 20% of buffer credits from the estimated GHG removals of proposed activity.</p>



5. Certification Opinion

CC IPL has performed the design certification renewal of the proposed Gold Standard project activity “*Afforestation Project in Tongliao, Inner Mongolia*” with start date of 11/04/2014^{/01/}.

As per paragraph 5.1.47 of GS4GG principle and requirement^{t/B01/}, the ‘Design Certification Renewal scope is assessed as below:

a. Changes in the Project as related to the General Eligibility Criteria

-There is no change in the project which may impact the project eligibility. The project still falls under large-scale category and implemented within the same geographical boundary as the registered PDD^{/01/}.

b. Incorporation of any relevant updates to the Gold Standard Requirements

- All relevant GS requirements are incorporated during the renewal of crediting period of the project.

c. Re-definition of baseline scenario and any impact of change on the eligibility principles, criteria and requirements

- PD has assessed the baseline following GS4GG Principles and requirements^{/ B01/}, and confirms the existing baseline is still valid and there is no change or extension in the baseline.

d. Any gold standard activity, product and methodology-specific requirement

-The project correctly discusses the requirements as per Community service Activity Requirements, version 1.2. The project meets the relevant requirements as per GS4GG as discussed in the updated PDD.

e. Demonstration of ongoing financial need, where relevant-see ongoing financial need

- Since, no revenue is generated from the Gold Standard certification for the 1st monitoring period (2018-2020) issued VERs, a FAR has been raised by the VVB for the next issuance in compliance with above GS requirements.

The review of the updated PDD^{/01/} and the subsequent follow-up interviews have provided validation team with sufficient evidence to determine the validity of the original baseline. The PDD correctly applies the valid version of the approved methodology Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)^{/B02/}, GS4GG Principles & Requirements v1.2^{/B01/}, GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{/B01/}, Risks & Capacities Guideline for Land Use & Forest projects Version 1.0^{/B01/}.

The validation activities conducted by CC IPL included: collection of information, documents and data supporting the estimated GHG removals and GHG calculation spreadsheets; assessment of eligibility criteria; assessment of management system. The estimated ex-ante CO₂ fixation for the 30 years is 449,706 tCO₂e with average annual ERs 14,990 tCO₂e/year^{/02/} after deduction of 20% buffer credits.

The VVB has raised 15 (fifteen) clarification (CLs), 09 (nine) corrective action requests (CARs) and 01 (one) FARs. Furthermore, during preliminary review SustainCert has raised 01 FAR. The VVB states that all the findings were properly addressed by PD and satisfactorily closed by the design certification team.

The VVB concludes with a reasonableness of assumptions and defaults that the project is in conformance with applied GS4GG Principles & Requirements v1.2^{/B01/}, GS4GG LUF Activity Requirements v1.2.1^{/B01/} and Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.1)^{/B02/}. No qualifications or limitations exist with respect to the validation opinion reached by the auditor.

Appendix 1. Safeguarding Principles Assessment

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)	VVB Assessment
Principle 1. Human Rights				
<p>Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?</p> <p>Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?</p> <p>Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?</p>	<p>No</p> <p>The project will impact on communities within the project area or exclude any vulnerable peoples. The project is involved in violence of human rights .</p>	<p>The project complies with Chinese Labour Law and relevant regulations while China has ratified two core UN human rights treaties, including the UN International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR) .</p>	<p>Not required</p>	<p>Appropriateness for this safeguarding principle was validated and confirmed through review of supportive document^{01/05/16//} and on-site inspection interviews^{/i-xii/} with: Representatives of PD Local Stakeholders VVB confirms that the project will achieve requirements through design and management, hence no mitigation is needed.</p>
Principle 2. Gender Equality and Women's Empowerment				
<p>Have women's groups/leaders raised gender</p>	<p>Yes</p> <p>The project will enable women</p>	<p>The project will be operated under Chinese Labour Law</p>	<p>Specific SDG targets for both gender and employment. The</p>	<p>Appropriateness for this safeguarding principle was</p>

<p>equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?</p> <p>Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?</p> <p>Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?</p> <p>Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?</p>	<p>to have equal participation in the forestry practices which will provide them right to decision making . Women are also encouraged to participate in the leadership of the cooperatives.</p> <p>I.</p>	<p>forbid Cooperative by-laws require equal decision-making rights for all genders</p>	<p>goals are to increase the number of women in leadership positions and employment opportunities, respectively.</p>	<p>validated and confirmed through review of supportive document^{01/08/16/05/} and on-site inspection interviews^{i-xii/} with: Representatives of PD Local Stakeholders</p> <p>VVB confirms that the project emphasizes on women participation and engaging them as leadership of the cooperatives. VVB has reviewed Chinese Labour Law^{05/} and HR policy^{16/} to confirm on the basis of gender, race, religion or any other basis.</p>
<p>Principle 3. Community Health, Safety</p>				
<p>The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community.</p>	<p>No</p>	<p>Not applicable</p>	<p>Not required</p>	<p>VVB confirms that the project does not include any activity exposing the community to any kind of health risk. Thus, the mitigation measures are not required.</p>

Principle 4.1 Sites of Cultural and Historical Heritage				
Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	No	Not Applicable.	Not required	VVB confirms that the project does not include any cultural and historical heritage. Thus, the mitigation measures are not required.
Principle 4.2 Forced Eviction and Displacement				
Does the project involve any risks related to involuntary relocation of people?	No	. Not Applicable.	N/A	VVB confirms that the project does not include any risk related to relocation of people.
Principle 4.3 Land Tenure and Other Rights				
Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	No	. Not Applicable.	N/A	VVB based on the review of the land user certificates ^{/20/} confirms that the land ownership is transferred to the collectives and there are no more uncertainties relating to the land tenure.
Principle 4.4 - Indigenous people				
Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	No	. Not Applicable.	N/A	VVB based on the on-site inspection and interviews ^{/i-xii/} confirms that the land collectives are not getting affected by the project activity
Principle 5. Corruption				
The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects Does the project have a risk	No	The project will be implemented under Climate Bridge (Shanghai)Ltd.	See Climate Bridge (Shanghai)Ltd. anti-corruption policy as evidence	VVB based on the on-site inspection and interviews ^{/i-xii/} confirms that as the project activity is of afforestation nature so no corruption in terms of bribery or unethical

of encouraging bribery, kickbacks, or other unethical behavior?				behaviour
Principle 6.1 Labour Rights and Working Conditions				
<p>Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?</p> <p>Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?</p> <p>Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?</p> <p>Does the project violate national laws, if available regarding non-discrimination in employment?</p> <p>Does the project allow child labor?</p> <p>Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?</p> <p>Does the project have insufficient measures to safeguard and support vulnerable project workers,</p>	No	Not Applicable	Not Applicable	<p>VVB based on the on-site inspection and interviewsⁱ⁻^{xii/} confirms t the workers health and safety policy, including measures for workers to stay in camps for a longer period of time, is made available for and implemented by the village committee to ensure that conditions for accommodation and nutrition in-take comply at least with those specified in the ILO Code of Practice on Safety & Health in Forestry. The main work of the villagers involved in the project is replanting the trees and patrolling. These activities in this MP did not involve any dangerous operations and didn't need the protective equipment. During this monitoring time, 11 of villagers has been employed as forest ranges with a salary of 67.5 RMB/ha/year^{11/}.</p> <p>VVB based on their own research through the situation of minimum wage standards in all provinces, autonomous</p>

<p>such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?</p> <p>Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?</p>				<p>regions, and municipalities directly under the central government in China (as of October 1, 2024)⁴ 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>
Principle 6.2 Negative Economic Consequences				
<p>Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?</p> <p>Does the project have potential negative impacts or pose a risk to the local economy?</p> <p>Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the</p>	<p>No The project will create potential casual employment opportunities such as nursery management, tree planting, local community developers and nursery and forestry guards.</p>	<p>Not applicable</p>	<p>Not required</p>	<p>Appropriateness for this safeguarding principle was validated and confirmed through on-site inspection interviews^{i-xii/} with that project has no negative consequences during and after implementation of project.</p>

⁴ https://www.mohrss.gov.cn/SYRlzyhshbzb/laodongguanxi /fwyd/202410/t20241012_527228.html

benefits it may bring?				
Principle 7.1 GHG Emissions				
Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	No	There will be no use of synthetic fertilisers during planting, organic compost will be used instead.	Not required	VVB based on the on-site inspection/interviews ^{i-xiii} , confirms that there is no use of synthetic fertilizers and pesticides
Principle 7.2 Energy Supply				
Does the project pose a risk to the availability and reliability of energy supply to other users?	No	The project will not use any energy in the designated project areas.	Not required	VVB based on the on-site inspection/interviews ^{i-xiii} , confirms the project will not use any energy in the designated areas.
Principle 8.1 Impact on Natural Water Patterns/Flows				
Does the project increase water usage to a level that will not allow for the maintenance of environmental flows? Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow? Does the project have the potential risk to exceed the rate of recharge for the groundwater source? Does the project involve any processes or activities that could contaminate the groundwater and render it	NO	Not required	Not required	VVB based on the on-site inspection and interview ^{i-xiii} confirms that the project is with a small lake in buffer zone of 95 meters and does not involve use of any chemicals which is affecting the groundwater resources.

unsuitable for use?				
Principle 8.2 Erosion and/or Water Body Instability				
Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	Through natural regeneration of degraded slopes, erosion can be stabilised. Due to excessive erosion already in the project area, the project will contribute to reducing erosion with the expert opinion of Mr. Zhang Tonghui, deputy chief of Naiman Research Station of Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences	Stakeholder expert is consulted and also received formal expert opinion from the following departments confirming the project will have a positive impact by reducing erosion through the natural regeneration activities.	Not required	VVB has reviewed the expert opinion evidence ^{17/} provided by the PD and confirms that the project will likely improve the natural water flow patterns and reduce the erosion activity leading to more retaining of water in the soils and recharging of the water table.
Principle 9.1 Landscape Modification and Soil				
Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project?	No crops will be introduced in the project areas. The areas are only designated for reforestation practices and enrichment planting.	Not applicable	Not required	VVB based on the on-site inspection/interviews ^{i-xii/} confirms that the land user rights certificates ^{20/} for plantation of trees and no human interference found in the project area resulting in ecosystem loss.
Principle 9.2 Vulnerability to Natural Disaster				
Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	Yes	Taking Ecological degradation in the Inner Mongolia reach of the Yellow River Basin, China: Spatiotemporal patterns and driving factors - ScienceDirect and Sandstorms and	Not required	VVB based on the on-site interviews ^{i-xii/} , confirms flooding and drought can change the land use pattern but these can be limited with plantation activities

		desertification in Mongolia, an example of future climate events: a review Environmental Chemistry Letters (springer.com) in consideration that change in land use patterns can be mitigated with the plantation establishment in the degraded, flooded area.		
Principle 9.3 Biosafety And Genetic Resources				
Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	No GMO is used in the Project area..	Not applicable	Not required	VVB based on the on-site interviews ^{i-xiii} , confirms that no GMO has been used for planting
Principle 9.4 Release of pollutants				
Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	No Project is promoting natural regeneration and conservation.	N/A	Not required	VVB confirms that the project activity is based on assisted natural regeneration and enrichment planting that does not lead to any release of pollutants to the environment.
Principle 9.5 Hazardous and Non-hazardous Waste				
Does the project involve the generation of waste materials (both hazardous and non-hazardous)? Does the project involve risk of release of	No	The project does not include use of hazardous and non-hazardous chemicals and materials	Not required	VVB confirms that the project activity is based on plantation and does not involve use of chemicals and other hazardous materials

<p>hazardous materials resulting from their production, transportation, handling, storage, or use? Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?</p>				
Principle 9.6 Pesticides & Fertilisers				
<p>Does the project involve the use of chemical pesticides? Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous) Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?</p>	<p>No.</p>	<p>Not applicable</p>	<p>Not required</p>	<p>VVB based on the on-site inspection/interviews^{i-xii/} and Planting plan-2014.pdf “and “Planting design report-2016.pdf”^{i/18/17/}confirms that the project does not include any use of fertilisers and only organic compost is used in the nurseries and further highlights the process of transporting seedlings to afforestation sites includes several key steps: nurturing management, which involves tending operations, fire prevention, and pest control. When pests or diseases occur, chemical control methods are employed, with a preference for low-toxicity, high-efficiency, and low-residue pesticides to ensure the safety of humans and animals while minimizing environmental impact. Additionally, a comprehensive</p>

				quarantine system is in place, supported by ongoing monitoring and a well-designed forest management and protection plan.
Principle 9.7 Harvesting of Forests				
Will the Project involve the harvesting of forests	No Selective harvesting is carried out in the project area. No clear-felling of Project trees is occurring.	Selective harvesting will be outlined in the forest management plan	Forest Management Plan	VVB based on the on-site inspection/interviews ^{/i-xiii/} and the revised PDD ^{/01/} confirms that the PD have selected the project as a conservation project and the main project activity of the project is planting trees and it will be used as public welfare forest and not be used for timber production for commercial benefits. Thus, the silvicultural method of the project applied/envisioned is 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. However, the 100% of the project area is considered as the conservations area which is maintained to enhance the

				biodiversity.
Principle 9.8 Food				
Does the project involve the risk of negatively influencing access to and availability of food for people affected?	No Project reports and supporting documentation from similar GS registered projects in the region (GS10220 and GS3007) indicate that these Projects has led to an increase in food security.	Not applicable	Not required	VVB based on the supporting reference projects confirms that the project activity does not involve any risk influencing the availability and accessibility of food to people.
Principle 9.9 Animal husbandry				
Does the project involve any risks to animal welfare? Does the project involve any potential risk of excessive or inadequate use of veterinary medicines? Does the project involve the risk of administering synthetic growth promoters, including hormones?	No The project does not conduct activities that directly involve animal husbandry.	Not applicable	Not required	VVB, based on review of GS PDD ^{/01/} and through on-site inspection/interviews ^{/i-xii/} confirms that the project does not include any animal husbandry activities.
Principle 9.10 High Conservation Value Areas and Critical Habitats				
Does the project have the risk of negatively impacting HCV areas and/or critical habitats? Does the project in the project area or area of downstream impacts have risks to the following: native tree patches,	No The project is located in an area of degraded grasslands and areas that were previously deserted.	N/A	N/A	Appropriateness for this safeguarding principle was validated and confirmed through review of supportive document and on-site inspection interviews ^{/i-xiii/} with representatives of PD Local

<p>individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?</p>	<p>Analysis was undertaken with the IBAT tool to assess if the project areas contained any HCV or key biodiversity areas. According to the analysis none were present within the areas. The project area belongs to HCV 3 as per HCV approach.</p> <p>The project activities are not expected to impact Key Biodiversity Areas given they will be regenerating degraded landscapes and increasing native habitats for wildlife to inhabit.</p>			<p>Stakeholders.</p>
<p>Principle 9.11 Endangered Species</p>				
<p>Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? Does the Project potentially impact other areas where endangered species may be present through transboundary affects?</p>	<p>No The project will not have any negative impact on endangered species. On the contrary, the project will create a more diverse and protected environment being more suitable for fauna (mammals etc). Besides, some of the species planted in the project are almost extinct.</p>	<p>The project is located in areas that are highly degraded (See PDD and PRA for justification). The objective of this project is to regenerate native trees to sequester carbon and provide habitat for native fauna. Expert opinion was also provided confirming there are no HCV areas, critical habitats or key biodiversity areas within the project areas (See Appendix 16).</p>	<p>Not required</p>	<p>VVB has reviewed the expert opinion evidence^{06/17/} provided by PD and confirms that the area under HCV was already degraded and does not include any potential identified endangered species which has also been verified from the District level Environmental protection, forestry and climate change authority.</p>

Appendix 2: Findings Log

Table 1. FAR from 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 Design Certification Renewal

CL	01	Section no.	A 1.2 of PDD of Design Certification Renewal	Date: 09/06/2024
Description of CL				
<p>(a) In line with the Section A1.2 of GS PDD <i>"On 10/04/2014, Zhaogensumogacha Collective authorized Roots & Shoots the right to deal with anything regarding carbon credit rights of this project. And Roots & and Shoots has signed the carbon credit purchase agreement with Climate Bridge to authorize whom the user rights of the carbon credits generated from the initial afforestation project in Zhaogensumogacha during the crediting period.</i></p> <p>In line with the Section A1.2 of GS PDD <i>"For the newly planted project area in Nugusitaigacha, Nugusitaigacha collective have signed an agreement on 26/03/2021 to authorize Climate Bridge as the Project Developer to deal with anything regarding carbon credit rights of this project".</i></p> <p>After the review of the agreement "Certificate of authorization", it is found that the land mentioned will be used for the project in 2016. PD is requested clarify the inconsistency.</p>				
<p>(b) VVB found that the project name in both the documents <i>"Certificate of authorization"</i> and <i>"Tongliao_Land use agreement"</i> are inconsistent.</p>				

- (c) VVB has observed that information on carbon credit sharing/ownership (% benefit sharing) is not provided in the contract agreements signed between Roots & Shoots, Climate Bridge and the concerned collectives of Zhaogensumogacha and Nugusitaigacha.

In line with the section 3.1.1 (c)- Annex B – Requirements For LUF Smallholder & Microscale Projects of GS4GG Land Use and Forest Activity requirements v1.2.1 and 3.1.1 (f) of GS4GG Principles and Requirements v. 1.2, the PD shall provide at minimum, evidence and/or a draft of the benefit-sharing agreement to the validation/verification body at Design Certification Renewal including the implementation benefit-sharing agreement including the distribution of revenues (between the Project Developer and the smallholders)

Project Developer Response	Date: 24/06/2024
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- (a) As described in the section A.1 of the PDD, the project including two parts of planted area, where 190 hectares were planted in Zhaogensumogacha in 2014 and new 1,180.96 hectares of s were planted in Nugusitaigacha in 2016.

The Section A1.2 of GS PDD “On 10/04/2014, Zhaogensumogacha Collective authorized Roots & Shoots the right to deal with anything regarding carbon credit rights of this project. And Roots & and Shoots has signed the carbon credit purchase agreement with Climate Bridge to authorize whom the user rights of the carbon credits generated from the initial afforestation project in Zhaogensumogacha during the crediting period.” was consistent with the agreement “Tongliao_Land use agreement (Tongliao_Land use agreement 2014)”;

The Section A1.2 of GS PDD “For the newly planted project area in Nugusitaigacha, Nugusitaigacha collective have signed an agreement on 26/03/2021 to authorize Climate Bridge as the Project Developer to deal with anything regarding carbon credit rights of this project” was in line with the agreement “Certificate of authorization (Tongliao_Land use agreement 2016)”.

- (b) As described in response (a), the project including two parts of planted area and including the two agreements “Certificate of authorization” and “Tongliao_Land use agreement”. For ease of identification, two agreements have been renamed as “Tongliao_Land use agreement 2014” and “Tongliao_Land use agreement 2016”.

- (c) As the definition of “Smallholder projects” described in GS document “Smallholder, Small Scale and Microscale Definitions and Requirements for Land-use and Forestry (LUF) Projects”, a project is a smallholder project if it only includes project areas where individual participant. The Project Participants of the project is Village collectives and Shanghai Roots & Shoots. They are all organizations. The project is neither a smallholder project nor a microscale project as described in section A.4 of the PDD. Therefore, the section 3.1.1 (c)- Annex B – Requirements For LUF Smallholder & Microscale Projects of GS4GG Land Use and Forest Activity requirements v1.2.1 is not applicable.

Documentation provided by Project Developer
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PDDCL01-Proof of land title and carbon credit ownership

VVB assessment	Date: 16/08/2024
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Based on the review of shared documents and revised GS PDD, VVB has assessed the following:

- (a) In line with the document shared “Tongliao_Land use agreement of 2014.pdf”, it has been found that rights to the land is held by Zhaogen and Xiba group villagers for the period of 50 years. In addition to this, it has been found that contractor has authorize Shanghai Roots & Shoots to act on their behalf in applying for sequestration credits for the specified land.

According to “Tongliao_Land use agreement of 2016”, the land title belongs to Guribanemogacha villagers and the contractor has authorize Climate Bridge (Shanghai) Ltd. to act on their behalf in applying for sequestration credits for the specified land.

(b) Based on the review of “Tongliao_Land use agreement of 2014.pdf” and “Tongliao_Land use agreement of 2016”, it has been found that project name has been found inconsistent in both the documents. For e.g.:

(i)

_____ (Village/Entity) owns xxx
Mu of unused land, whose boundaries reach (East) _____ (West)
(South) _____ (North) _____.
The land is contracted to _____ (see attached list), who have
all the rights to the land until _____. After discussions between
these contractors and the village committee (signature below indicates
consent), the land mentioned above will be used for the Million Tree Project
of Shanghai' Roots & Shoots starting 2014. To clarify the land rights and
prevent further dispute, all parties involved hereby sign in agreement.

(ii)

After discussions between these contractors and the village committee (signature
below indicates consent), the land mentioned above will be use for the "Double Ten
Million Mu" Comprehensive Treatment Project of Keerqin Sandy Land in 2016. To
clarify the land rights and prevent further dispute, all parties involved hereby sign in
agreement.

(c) VVB has identified that, according to the document 'GS3031_Transition-Annex-tongliao-20210625-clean,' uploaded on the GS website, the scale of the project is defined as Large Scale. The PD is requested to clarify this inconsistency. In-case if the scale of the project changes from Large to Small Scale, then the PD have to undergo the Design Change as per the requirements of GS4GG Design Change Requirements v 1.1.

However, as per the RULE UPDATE- Smallholder, small scale and microscale definitions and requirements for Land-Use and Forestry (luf) projects, it has been found under Section 2.1.1 and 2.1.2 that

“A smallholder project shall;

- i. A project is a smallholder project if it only includes project areas where individual participant; - own or lease no more than 3 ha of land in the host country. In case of leased land, the project must provide evidence that the leaser has been leasing the land for the past 5 years. In case project involves community owned land, the project developer must provide evidence that the average land assigned to each community member is 3ha or less; AND - are defined as low-income communities according to host country
- ii. be either a small-scale or a micro-scale project,
- iii. generate no more than 16,000 tCO₂e/yr

Based on a review of the key project information and Section A.4. of the PDD, the VVB has noted that the PD has classified the project activity as Small Scale, with an estimated annual average of 14,990 tCO₂e/year, which is below the 16,000 tCO₂e/year threshold. Furthermore, the definition of a smallholder project states that “In case project involves community owned land, the project developer must provide evidence that the average land assigned to each community member is 3ha or less; AND - are defined as low-income communities according to host country”. Therefore, the PD is requested to submit the distribution of revenues between the PD and the smallholders, along with evidence that the average land per community member is 3 hectares or less and that the communities are considered low-income by the host country.

(d) VVB has furthermore identified that, according to the document 'GS3031_Transition-Annex-tongliao-20210625-clean,' uploaded on the GS website, the methodology applied is Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (version 1.0). The PD is requested to clarify this inconsistency. In-case if the methodology of the project changes from version 1.0 to

version 2.0, then the PD have to undergo the Design Change as per the requirements of GS4GG Design Change Requirements v 1.1.

CL is still open

Project Developer response

Date: 26/08/2024

Response to (b): According to the Section A.1 of the GS PDD, the project consists of two areas: the initial 190 hectares of area in 2014 was based on the project names “Million Tree Project of Shanghai’s Roots & Shoots” and the added 1180.96 hectares of new areas in 2016 was based on the project names “Double Then Million Mu Comprehensive Treatment Project of Keerqin (Horqin) Sandy Land”. The explanation of the two areas has been added in footnote 2 and 3 of GS PDD in page 5.

Response to (c): The project area is 1,370.96 hectares all the time and not changed in this monitoring time. According to the definition in section 9.1.1 of Project scale in GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS, “GSVER Projects may be registered as ‘large scale’, ‘small scale’ (for the applicability of methodologies and tools only) or ‘microscale’. Scale is defined in the relevant Activity Requirements.”

For the GS document LAND USE & FORESTS ACTIVITY REQUIREMENTS (Version 1.2.1), the project scale is defined in ANNEXB- REQUIREMENTS FOR LUF SMALLHOLDER & MICROSCALE PROJECTS.

As the section A.4 of the GS PDD described, the project area is greater than 500 ha (1,370.96 ha) and the project participants are organizations Village collectives and Shanghai Roots & Shoots, not a smallholder project. Meanwhile, the Gold Standard approved methodology “Afforestation/Reforestation GHG Emissions Reduction & Sequestration Methodology (version 2.1)” used in Tongliao project is not a methodology only for the small-scale. Therefore, the small scale is not applicable, and the project is defined as large scale. The GS PDD has been corrected the project scale as large scale, which is consistent with the document 'GS3031_Transition-Annex-tongliao-20210625-clean.

According to the section 1.1.2 of the RULE UPDATE- Smallholder, small scale and microscale definitions and requirements for Land-Use and Forestry (LUF) projects: “Projects listed or registered with Gold Standard for the Global Goals (GS4GG), or previous versions of the standard, are not required to retroactively update the project scale/definition and/or any other aspect of the registered projects until the end of its crediting life. Such projects may also include new areas that comply with the New Area Certification requirements in the Land Use Activity requirements as per original project scales/definitions”. Therefore, the GS document LAND USE & FORESTS ACTIVITY REQUIREMENTS (Version 1.2.1) is referenced. According to the definition of the “Smallholder” in TERMS AND DEFINITIONS of the LAND USE & FORESTS ACTIVITY REQUIREMENTS.

Smallholders are farmers that have more than 50% of farm work done by family members, cooperative members or neighbours. Smallholder projects include project areas that are managed by individual participant of smallholder. The Project Participants are Village collectives and Shanghai Roots & Shoots. They are all organizations. Therefore, the project is neither a smallholder project nor a microscale project as described in section A.4 of the PDD (page 26) and the section 2.1.1 is not applicable.

Response to (d): When submitting the document 'GS3031_Transition-Annex-tongliao-20210625-clean, the methodology is Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (version 1.0). The methodology version has been updated to version 2.1 in 16/05/2024 and the name is “Afforestation – reforestation GHG emissions reductions & sequestration methodology”.

According to the condition (d) of section 5.1.47 of the GS document PRINCIPLES & REQUIREMENTS (Version 1.2):

Design Certification Renewal follows the same process as Validation and Design Review (Design Certification) though the scope of assessment is limited to:

- (a) Changes in the Project as related to the General Eligibility Criteria
- (b) Incorporation of any relevant updates to the Gold Standard Requirements
- (c) Re-definition of Baseline Scenario and any impact of change on the Eligibility Principles, Criteria and Requirements

- (d) Any Gold Standard activity, product and methodology-specific Requirements
- (e) Demonstration of Ongoing Financial Need, where relevant – see Ongoing Financial Need

According to the condition(b) and (c), Design Certification Renewal need to incorporate any relevant updates to the Gold Standard Requirements and any Gold Standard activity, product and methodology-specific Requirements.

Therefore, the latest version of the methodology was used for the GS PDD in this Design Certification Renewal. The project does not involve any design changes.

Documentation provided by Project Developer

VVB assessment

Date 11/09//2024

b) It is clarified by the PP that the initial 190 hectares in 2014 was based on the project named the "Million Tree Project of Shanghai's Roots & Shoots," while the 1,180.96 hectares added in 2016 was named of the "Double Then Million Mu Comprehensive Treatment Project of Keerqin (Horqin) Sandy Land." The same was made transparent in the PDD.

c) As per the section 1.1.5 of the ANNEXB- REQUIREMENTS FOR LUF SMALLHOLDER & MICROSCALE PROJECT, *Microscale projects are defined as projects with a project area of maximum 500h* since it is confirmed that the project area is greater than 500 ha (1,370.96 ha), the project is not a microscale and considered as "large scale" project in line with the above requirements and the same was further made clear in the PDD section A.4 appropriately. Furthermore, the project complied with section 1.1.2 of the "RULE UPDATE- Smallholder, small scale and microscale definitions and requirements for LUF projects": *"Projects listed or registered with Gold Standard for the Global Goals (GS4GG), or previous versions of the standard, are not required to retroactively update the project scale/definition and/or any other aspect of the registered projects until the end of its crediting life. Such projects may also include new areas that comply with the New Area Certification requirements in the Land Use Activity requirements as per original project scales/definitions.*

Further, it is clarified by the PD, that the Project Participants are Village collectives and Shanghai Roots & Shoots thus the project is not smallholder project and the same is accepted by the VVB according to the "smallholder" TERMS AND DEFINITIONS of the LAND USE & FORESTS ACTIVITY REQUIREMENTS.

Further, VVB noted that the project does not involve the harvesting activity however, as per the section "key project information" PD has selected "Silvicultural system" as "selective harvesting" instead of conservation, the same was also mentioned in the PDD section B.2. PP is requested to clarify the inconsistency found.

d) Based on the response of the PD and review of PDD, it is confirmed that the project in line with the conditions (b) and (c) set out in section 5.1.47 of the GS document PRINCIPLES & REQUIREMENTS (Version 1.2), the Design Certification Renewal includes *"Incorporation of any relevant updates to the Gold Standard Requirements"*. Thus, appropriately latest version of the methodology was used for the GS PDD by the PD with no design change is required in this case. The same has been deemed to be acceptable by the VV team.

CL is still open.

Project Developer response

Date 23/09/2024

Response to (c): The section "key project information" PD of "Silvicultural system" and the PDD section B.2. PP have been corrected as "conservation forests". Because 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.

Documentation provided by Project Developer

VVB assessment	Date: 01/01/2024
<p>VVB, based on the review of the revised PDD 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 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>	
<p>Finding is closed</p>	

CL	02	Section no.	A.5 of GS PDD	Date: 09/06/2024
Description of CL				
<p>As stated in Section A.5 of GS PDD <i>“For the initial project area in Zhaogensumogacha, Roots & Shoots has provided the fund for planting and forest maintenance, the potential carbon revenue could increase the income of local communities and will also be significant supplement for funding of the long-term forest management, including biodiversity protection and enhancement”</i>.</p> <p><i>“For the area planted in Nugusitaigacha, local Forestry Bureau has provided the fund for planting and forest maintenance for the first five years of the project lifetime”</i>.</p> <p>PD shall provide the evidence in support of income increase to local communities and for protection and enhancement of biodiversity.</p>				
Project Developer response				Date: 24/06/2024
<p>According to the salary payment system data of the local government, 11 of villagers were employed as forest ranges and can receive subsidies 14,400 RMB, which support the income increase for local communities. 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, the biodiversity is increased due to the environment improvement.</p> <p>Evidence in support of income increase and enhancement of biodiversity will be added as evidence.</p>				
Documentation provided by Project Developer				
PDDCL02-Evidence in support of income increase and enhancement of biodiversity				
VVB assessment				Date: 16/08/2024
<p>In line with the employment agreement of forest rangers it has been found that Party A (Kezuohou Banner Forestry and Grassland Bureau) will pay RMB 12147.75 in full before December 2023 to Party B (farmer) under Public Welfare Forest Management and Protection Contract. However, under P6.1 <i>“ In this monitoring time, about 10 of villagers has been employed as forest ranges with an salary of 67.5 RMB/ha/year, who are on the duty of the daily forest management”</i>. Taking Appendix 1 and Contract in consideration, inconsistency has been found with the salary and number of the involved farmers.</p> <p>Based on the review of table 1 and Section 6.3 of GS PDD, SDG 8 has been found with the value of 10 whereas, Section E. 4 of GS MR, SDG 8 has been found with the total number of jobs in the project estimate as 10 and in baseline estimate as zero but the net benefit value is 11, which is found inconsistent.</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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

CL is still open

Project Developer response

Date 26/08/2024

According to the Entrustment Contract for Public Welfare Forest Management and Protection, the Management area of the party B (farmer) is 2,699.01Mu (1ha=15Mu) and the maintenance fee payable by Party A to Party B for the whole year is RMB 12145.545 RMB. The unit price for maintenance per unit area is $12145.545/(2699.01/15)=67.5$ RMB/ha/year. The salary is consistent between GS PDD and the Contract.

According to the table 1, the estimated annual average value of SDG 8 is 10, which was calculated in advance in “SDG 8 Project outcome” of section 6.1 of GS PDD ($1370.96*15/2000=10$). And the 11 is the ex-post value recorded in monitoring record (Income increase to local communities-Electronic payment). This inconsistency may be due to the fact that some forest rangers have a maintenance area of less than 2000 acres in practice.

Documentation provided by Project Developer

Employment agreements of forest rangers

VVB assessment

Date 11/09/2024

VVB, based on the response provided by the PD and review of the Entrustment Contract-Forest protection, it has been clarified that the Party B (farmer) manages 2,699.01 Mu, and Party A pays an annual maintenance fee of RMB 12,145.54. The unit price is 67.5 RMB/ha/year, which is consistent between the GS PDD, MR and the provided Contracts.

It has been clarified that there is a change in the actual monitoring value of SDG.8 which is 11 jobs are provided and the supporting evidence employment contracts for the same are provided and checked by the VVB team.

CL has been closed.

CL	03	Section no.	2.1.2 of GS A/R Methodology v2.1	Date: 09/06/2024
Description of CL				
In line with Section 2.1.2 (e) of GS A/R Methodology v2.1 “ <i>Soil disturbance (through ploughing, digging of pits, stump removals, infrastructure, etc.) on organic soils shall be in less than 10% of the area that is submitted to certification (not 10% of the entire project area)</i> ”.				
PD shall provide Soil Laboratory report or relevant supporting review of literature in support of soil disturbance on organic soils (if applicable)				
Project Developer Response				Date: 24/06/2024
According to the definition of “Organic Soil” in Section 1.1.1 (d) of GS A/R Methodology v2.1 the soil contains at least 12% (by weight) organic carbon. However, according to the local study, the highest soil in Horqin sandy land contains 0.84% organic carbon (8.42g/kg), which is far below the organic carbon content standard of Organic Soil. The PD has corrected the description in Section B.2 of the PDD (p30) and the name of the study has been added in footnote 4.				
Documentation provided by Project Developer				
PDDCL03-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.				
VVB assessment				Date: 16/08/2024
Based on the review of literature review, VVB has assessed that soil found in Horqin is of sandy nature with negligible amount of organic content. The native vegetation consists of sparse-tree				

grasslands, which have been degraded to typical steppe and temperate steppe deserts, and the grassland soils consist of degraded sandy chestnut soils and eolian sandy soils, which are coarse in texture, poor in structure, low in soil nutrient content and weak in water and nutrient preserving capacity, producing an environment that is less favourable for vegetation restoration and desertification reversion. [Historical grassland desertification changes in the Horqin Sandy Land, Northern China \(1985–2013\) | Scientific Reports \(nature.com\)](#)

The Horqin Sandy Land, located in the agro-pastoral transition zone between the Inner Mongolia Plateau and the Northeast Plains [j.1747-0765.2005.tb00007.x \(tandfonline.com\)](#).

CL has been closed

CL	04	Section no.	4.1.12 of GS Principles & Requirements v1.2	Date: 09/06/2024
Description of CL				
In line with Section 4.1.12 of GS Principles & Requirements v1.2,				
<i>“Changes in the project location or the extension of the project boundaries call for a re-assessment of the SDG Impacts and Safeguarding Principles, as does a significant change of scale of the project, even if located on the same site.”</i>				
PD shall provide the GS SDG Impact Tool as per SDG Impact tools – Gold Standard for the Global Goals .				
Project Developer Response				Date: 24/06/2024
At present, the EXCEL version of SDG Impact Tool can still be used, and the digital version is still undergoing training and will not become mandatory. PD has provided the latest GS SDG Impact Tool and modified corresponding statement of SDG Global goals in revised PDD and MR. 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” The GS SDG Impact Tool of the project has been provided as evidence.				
Documentation provided by Project Developer				
PDDCL04_V1.3_IQ_SDG-Impact-tool				
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.				
Based on the review of GS PDD and MR, VVB has assessed that Option 2 “Follow a Gold Standard Approved SDG Tool for the demonstration of SDG Impacts” has been opted in present monitoring period (01/01/2021 to 01/11/2023) with the identification and project impact. However, according to Key Project Information of GS MR the duration of monitoring period mentioned is from 01/01/2021 to 31/12/2023, which has been found inconsistent with the PD response.				
CL point is still open				
Project Developer response				Date 26/08/2024
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.

The monitoring period (01/01/2021 to 01/11/2023) in Approved SDG Tool for the demonstration of SDG Impacts” has been corrected as 01/01/2021 to 31/12/2023.

Documentation provided by Project Developer

PDDCL04_V1.3_IQ_SDG-Impact-tool-2nd

VVB assessment

Date DD/MM/2024

PD has clarified 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 and PD response, VVB confirms that there are 38 plant species are found 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. However, no supporting monitoring data is provided to confirm the mentioned species increase.

VVB, based on the review of GS MR, it has been confirmed that the project monitoring period of 01/01/2021 to 31/12/2023 is made consistent appropriately.

CL is still open.

Project Developer response

Date 23/09/2024

The supporting monitoring data of biodiversity including the number of the species has been provided as evidence.

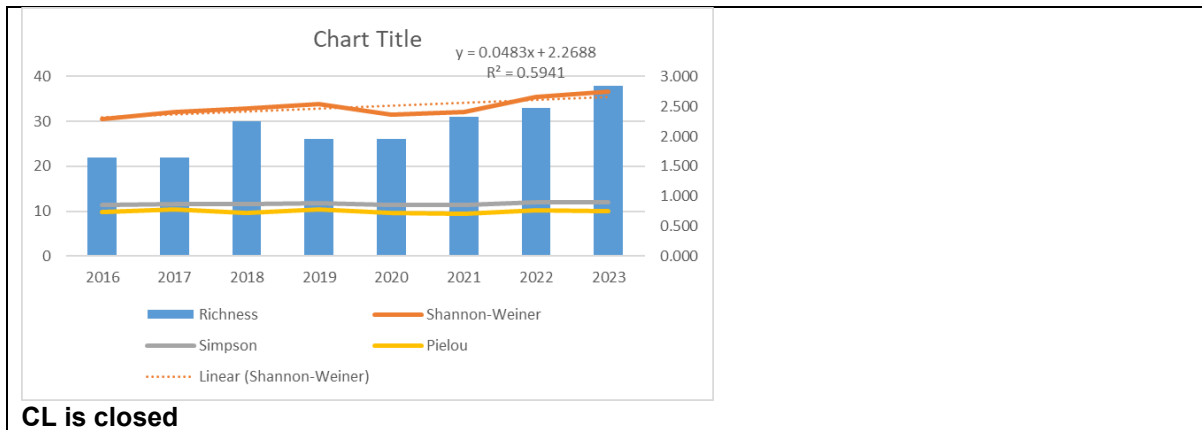
Documentation provided by Project Developer

PDD-CL04-Enhancement of biodiversity

VVB Assessment

Date: 01.10.2024

VVB, based on the review of the excel sheet “Enhancement of biodiversity”, 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.



CL	05	Section no.	D1, Principle 9.6 of GS PDD	Date: 09/06/2024
Description of CL				
<p>In line with Section D1, Principle 9.6 of GS PDD “During this monitoring period, no chemical pesticides and fertilizer were used”.</p> <p>Whereas, in the supporting document provided by PD “Afforestation technical regulations of Inner Mongolia (SOP)”, it is stated as followed:</p> <ul style="list-style-type: none"> • Section 13.2.2 “Plough the forest land, prepare the land and apply fertilizer” • Section 11.4.1.2 “Apply soil acidifiers such as organic fertilizer, humic acid, weathered coal, xanthohumol, zeolite, gypsum, pyrite slag, soil salt antagonists, and chelating agents”. • Section 11.4.1.23 “Plant salt-alkali tolerant plants and apply soil-activating microbial fertilizers and salt-alkali tolerant microorganisms”. <p>PD shall provide the clarification for the inconsistency found in the document.</p>				
Project Developer response				Date: 24/06/2024
<p>For the supporting document “Afforestation technical regulations of Inner Mongolia (SOP)”(Evidence number I.2), that is a local technical for afforestation guidance manual in Inner Mongolia region. In this document, it is stipulated that the implementation process of afforestation technology in Inner Mongolia Autonomous Region may require technical and natural disaster prevention and control guidance methods, including prevention and control measures that may face pests and rodents. The document is a technical guidance documents for the project design report, rather than a specific measures for the project. The section A.3 of the PDD has been revised correspondingly.</p> <p>As described in project design report (provided as evidence), for the two parts of planted area in 2014 and 2016 respectively, there are no plan to use chemical pesticides and fertilizer.</p>				
Documentation provided by Project Developer				
PDDCL05-Project planting plan& Project design report				
VVB assessment				Date: 16/08/2024
<p>Based on the review of Appendix 1 of revised GS PDD, VVB has assessed that P9.6 has been updated to indicate “NO” for the use of pesticides and fertilizers.</p> <p>“Planting plan-2014.pdf “and “Planting design report-2016.pdf” highlights the process of transporting seedlings to afforestation sites includes several key steps: nurturing management, which involves tending operations, fire prevention, and pest control. When pests or diseases occur, chemical control methods are employed, with a preference for low-toxicity, high-efficiency, and low-residue pesticides to ensure the safety of humans and animals while minimizing environmental impact. Additionally, a comprehensive quarantine system is in place, supported by ongoing monitoring and a well-designed forest management and protection plan.</p>				
CL has been closed.				

CL	06	Section no.	Supporting Document	Date: 09/06/2024
Description of CL				

VVB based on the review of shared documents found the following:

Based on the review of shared document “Planting design report-2016”, it was observed under Table “Project construction task allocation table”, that different area (mu) id having the same planting density for tree species involved.

PD shall provide clarification on how different area can have the same planting density, given that the species were planted at a spacing of 2x5 meters as mentioned in “Tongliao_Afforestation Planning 2016”.

Additionally, PD is requested to provide the total number of trees under management.

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

The planting density refers to how many trees are planted per Mu, and all of the planting compartments has the same plant density. Given that the species were planted at a spacing of 2x5 meters, and the planting density is 67 trees /Mu. The planting density in Table “Project construction task allocation table” in document “Planting design report-2016” has been corrected and the planned total number of trees under management has been added in the table as a new column. And the revised document “PDDCL06-Planting design report-2016” will be provided as supplementary evidence.

Documentation provided by Project Developer

PDDCL06-Planting design report-2016

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

Based on the review of Planting design report-2016.pdf, VVB has assessed that seedling requirement varies with the area (Mu) to be planted. For example: under column 4.05 is area, under column 67 is planting density and under column 227 is seedling requirement.

项目建设任务分配表

小班号	地点	树种	面积 (亩)	种植密度 (株/亩)	需苗量 (株)
1	努古斯台	樟子松	4.05	67	227
2	努古斯台	樟子松	4.95	67	332
3	努古斯台	樟子松	7.05	67	472
4	努古斯台	樟子松	9.00	67	603
5	努古斯台	樟子松	15.00	67	1005
6	努古斯台	樟子松	15.00	67	1005
7	努古斯台	樟子松	28.05	67	1879
8	努古斯台	樟子松	31.05	67	2080
9	努古斯台	樟子松	31.05	67	2080
10	努古斯台	樟子松	40.95	67	2744
11	努古斯台	樟子松	42.00	67	2814
12	努古斯台	樟子松	43.05	67	2884
13	努古斯台	樟子松	49.05	67	3286
14	努古斯台	樟子松	52.95	67	3548

CL has been closed

CL	07	Section no.	B5.2 (b), Supportive document for Ongoing financial need	Date: 09/06/2024
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Description of CL

- VVB after the review of the supporting documents, J.1-Proof for the demonstration of ongoing financial need-关于构建防护林修复工程体系的几点思考_韩小红”, PD shall elaborate how this publication or review of literature supports the ongoing financial need for the specific project.
- In line with Section B5.2 (b) of GS PDD, it is stated that,

"In the 2nd crediting period, the project will provide job opportunities for local residents to play roles of forest rangers. Totally provide 10 jobs position for local residents".

PD shall provide the evidence (employment agreements and records, CV's of the personnels, salary receipts) proof of job creation/recruitments

Project Developer response

Date: 24/06/2024

1. According to the study (evidence J.1), Three-North Shelterbelt Program Project is an important afforestation project in northern China. These projects are public welfare forest, which has no high economic returns and lacks investment enthusiasm. Management and conservation measures for the public welfare forest are absent for a long-time due to the shortage of funds, leading to forest degradation.

Like the project of Three-North Shelterbelt Program Project, the project of Tong Liao also is public welfare forest afforestation. The funds are government subsidies and public welfare organizations, which often only cover the initial afforestation costs and has no high economic returns and lacks investment enthusiasm. Natural environment like the project of Tong Liao requires continuous management and protection for new afforestation to survive well, otherwise it will face the problem of afforestation failure due to the lack of subsequent management and protection, just like the Three North Project. The maintenance of afforestation results requires continuous financial investment, and the government's initial financial investment is not enough. As a public welfare forest, it lacks investment attractiveness and can only seek support from carbon revenue. The PDD has been revised in section B.5.2 (page 38).

The maintenance of afforestation results requires continuous financial investment, and the government's initial financial investment is not enough. As a public welfare forest, it lacks investment attractiveness and can only seek support from carbon revenue. The PDD has been revised in section B.5.2 (page 38).

2. 11 villagers were hired as forest rangers, and some employment agreements and payment records of forest rangers has been provided as supplementary evidence.

Documentation provided by Project Developer

PDDCL07-evidence

VVB assessment

Date: 17/08/2024

Based on the review of employment document GS PDD and PD response, VVB has assessed the following:

1. In line with J.1-Proof for the demonstration of ongoing financial need-关于构建防护林修复工程体系的几点思考_韩小红, it has been found that no complete and mature measures and policies for the restoration of shelterbelts and are not fully invested and lack investment from the public forest welfare, so the carbon revenue support the afforestation and reforestation project. However, PD is requested to provide adequate supporting evidence which supports the ongoing financial need for the specific project.
2. Under P6.1 " *In this monitoring time, about 10 of villagers has been employed as forest ranges with an salary of 67.5 RMB/ha/year, who are on the duty of the daily forest management*". Taking Appendix 1 and Contract in consideration, inconsistency has been found with the number of farmers involved
Based on the review of table 1 and Section 6.3 of GS PDD, SDG 8 has been found with the value of 10 whereas, Section E. 4 of GS MR, SDG 8 has been found with the total number of jobs in the project estimate as 10 and in baseline estimate as zero but the net benefit value is 11, which is found inconsistent.
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 26/08/2024

<p>Response to 1: According to the Expenditure plan of the carbon revenue of the project, the remaining project management Fee for subsidies of forest ranges, forest management are only 72,690 RMB. This part of the funding is far from enough for strengthening the forest ranger management team, doing a good job in pest control and management, replanting seedlings, and annual forest monitoring. Without sustained investment in carbon revenue, the project will face the risk of afforestation failure. The Expenditure plan of the carbon revenue of the project has been provided as evidence.</p> <p>Response to 2: The P6.1 of the Gs PDD has been updated and the number of forest ranges has been corrected as 11 in this monitoring period.</p> <p>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.</p>
<p>Documentation provided by Project Developer</p> <p>01-Expenditure plan of the carbon revenue 02-Employment agreements of all forest rangers 03-Electronic payment for all forest rangers</p>
<p>VVB assessment Date: 10/09/2024</p> <ol style="list-style-type: none"> In response to the finding PD has appropriately provided the supporting “01-Expenditure plan of the carbon revenue” which confirm the ongoing financial need for the implementation of project and the same is checked and accepted. Refer CL02 assessment. <p>CL has been closed based on the above conclusions.</p>

CL	08	Section no.	B.6.2 SGD 13 & Ex-ante Calculation Sheet	Date: 09/06/2024
Description of CL				
<p>VVB based on the review of the GS PDDD in Section B 6.2 under data and parameters fixed in ex-ante and “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423” have found the following inconsistencies:</p> <ol style="list-style-type: none"> The value applied for R tree _ BSL is 0.72. However, the value is found missing as per the research paper “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 “Li Yuqiang_reference”, the value used for aboveground biomass in “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423” for sparse bushes was found missing. Based on the review of “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423”,it was found that “sparse bushes” are accounted for tree biomass, PD shall elaborate how sparse bushes are accounted in trees. VVB based on the review of the ex-ante and ex-post carbon calculation sheet found that the equations used for the Poplar and Pinus species are different in both the sheets. PD is requested to clarify this inconsistency. Equation used for Pinus sylvestris “$V=1.27(1-e^{-0.03t})^{3.58}$” was found missing in the reference “Study on growth regularity of Pinus sylvestris var. mongolica”. As per the “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423”, the survival rate is mentioned as 80% and 100%, on what basis the survival percentage is considered. PD shall provide the literature evidence in support of the same. As per the “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423”, tree biomass calculated from cell D37 to D66 has taken number of days from column J in consideration. However, PD has multiplied the Biomass with cell G37 to G66 (days) again. PD is requested to correct the double counting of the calculation. The value found in cell G-4 to G-19 under “Growth model” tab in the ER sheet is untraceable and appear to be hardcoded. 				

(i) Under tab “CO2 fixation” the values provided for stem volume are mentioned as tree biomass under tab “Growth Model”.	
PD is requested to provide clarification for all the above-mentioned points.	
Project Developer response	Date: 24/06/2024
<p>(a) The 0.72 is the value of Root to Shoot ratio which calculated based on the local research paper “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)”. The data source and calculation process has been added in the annotation of the paper.</p> <p>(b) As described above, the aboveground shrub biomass is the sum of aboveground shrub biomass and standing dead wood, which is $0.7025+0.0963=0.7988$ tdm/ha. The difference in decimal places is due to the involvement of unit conversion for g/m^2 to t/ha.</p> <p>(c) As described above, “sparse bushes” are accounted for shrub biomass and not for tree biomass the relevant misleading description “tree biomass” has corrected as “shrub biomass”. See the revised “B.1&B.4- Tongliao_CO2-Fixation Calculation-PD-track-20240806”.</p> <p>(d) Considering to the lack of the actual DBH and tree height data in project design stage. The ex-ante carbon estimation is based on the growth-model of relationship equation between tree age and Stem volume. And for the ex-post carbon calculation, the actual DBH and tree height data is main monitoring parameters and same equations for height and Breast-height Diameter was used by Poplar and Pinus species in all monitoring time. This is an inconsistency between the ex-ante estimated value and the actual ex-post monitoring value.</p> <p>(e) The Equation used for Pinus sylvestris “$V=1.27(1-e^{-0.03t})^{3.58}$” has been added as an annotation in the reference “Study on growth regularity of Pinus sylvestris var. mongolica”</p> <p>(f) The survival rate is mentioned as 80% which based the section 16.3.1.2 of national standard GB/T 15776-2023 “Technical regulation for forestation”</p> <p>(g) There is no double counting of the calculation in between Biomass with cell G37 to G66 (days) and J4 to J9. The cell J4 to J9 is total biomass of 5 years and it was split into each year in cell G37 to G66. The tree biomass in cell D41 of fifth year is same to the cell H4.</p> <p>(h) The value found in cell G-4 to G-19 under “Growth model” tab in the ER sheet is the experience value from local book “Populus Simonii in North China中国北方小叶杨”,and the data source is annotated.</p> <p>(i) The tree biomass under tab “Growth Model” has been corrected as “Stem volume” in revised “B.1&B.4- Tongliao_CO2-Fixation Calculation-PD-track-20240806”.</p>	
Documentation provided by Project Developer	
<ol style="list-style-type: none"> 1. Annotated research paper “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)” 2. Revised “B.1&B.4- Tongliao_CO2-Fixation Calculation-PD-track-20240806” 3. Annotated research paper “Study on growth regularity of Pinus sylvestris var. mongolica” 4. GB/T 15776-2023 “Technical regulation for forestation” 5. Annotated book“Populus Simonii in North China中国北方小叶杨” 	
VVB assessment	Date: 17/08/2024
Based on the review of shared documents and carbon calculation sheet, VVB has found the following:	
<p>(a) The 0.72 is the value of Root to Shoot ratio found in research paper “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) as a the ratio of aboveground and belowground shrub biomass values given in the table of the defined research paper.</p> <p>(b) Based on the review of 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), the value used for aboveground biomass in “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423” for sparse bushes is derived from the addition of standing dead wood and AGB of shrubs.</p>	

- (c) Based on the review of “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423”, it has been found that irrelevant description for shrub biomass has been corrected.
- (d) Based on the response it has been found that different equations used in ex-ante and ex-post has been used in last monitoring also and is found to be valid.
- (e) Based on the review of the referenced literature “Study on growth regularity of Pinus sylvestris var. mongolica”, equation used for Pinus sylvestris is “ $V=1.27(1-e^{-0.03t})^3 \cdot 3.58$ ”

期 张建东等:塞罕坝地区樟子松生长规律研究 137

表 1 塞罕坝地区樟子松的生长模型

Table 1 The growth model of *Pinus sylvestris* var. *mongolica* in Saihanba

地位级 Site class	林木 Tree	指标 Factor	模型 Model	A	b	c	r
I	优势木	胸径	$y = A + b \log(t+c)$	-28.05	14.15	2.00	0.96
		树高	$y = A(1 - e^{-at})^b$	27.35	1.59	0.04	0.98
		材积	$y = A(1 - e^{-at})^b$	2.04	3.92	0.03	0.99
	标准木	胸径	$y = A + b \log(t+c)$	-24.34	11.90	2.00	0.96
		树高	$y = A(1 - e^{-at})^b$	18.94	2.20	0.06	0.98
		材积	$y = A(1 - e^{-at})^b$	1.27	3.58	0.03	0.92
优势木	胸径	$y = A + b \log(t+c)$	-30.58	13.87	2.00	0.97	

- (f) Based on the review of [GB/T 15776-2023 related PDF English \(chinesestandard.net\)](#), it has been found that the afforestation plant number preservation is 80% or above.
- (g) Based on the review of cell J4 to J9 and cell G37 to G66 (days) of carbon sheet, it has been found that the value provided in cell J4 to J9 is the total value of number of days for 5 years and is not accounting double counting for the same parameter.
- (h) Based on the referred literature “Populus Simonii in North China中国北方小叶杨”, the values used in cell G4 to G 19 has been provided under table 3.1. of the literature.
- (i) Based on the review of carbon calculation sheet, stem volume has been updated for tree biomass.

CL has been closed

CL	09	Section no.	Ex-ante Calculation Sheet	Date: 09/06/2024
Description of CL				
VVB based on the review of “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423” has assessed that the value 0.00934 m ³ is found for volume of the Poplar species as per the review of literature “Populus Simonii in North China中国北方小叶杨”, whereas the same was mentioned as tree biomass in the Growth Model tab of the ER calculation sheet.				
PD is requested to provide the clarification for the inconsistency.				
Project Developer response				Date: 24/06/2024
As described above, the value found in cell G-4 to G-19 under “Growth model” tab in the ER sheet is the experience value from local book “Populus Simonii in North China中国北方小叶杨”, and the data source is annotated. The tree biomass has been corrected as “stem volume”.				
Documentation provided by Project Developer				
VVB assessment				Date: 17/08/2024
<ul style="list-style-type: none"> • Based on the referred literature “Populus simonii in North China中国北方小叶杨”, VVB has assessed that the values used 0.00934 m³ in cell G4 to G 19 has been provided under table 3.1. of the literature. • Based on the review of “Copy of B.1&B.4-Tongliao_CO2-Fixation Calculation-PD-track-20240423” stem volume has been updated for tree biomass. 				
CL has been closed				

CL	10	Section no.	Appendix 1 of GS PDD for Design Certification	Date: 09/06/2024
Description of CL				

Based on the review of Appendix 1 of GS PDD for Design Certification, VVB has assessed the following:

1. The response to P.1.1.1 & P.1.1.2 of P.1(Human Rights) was found misleading.
2. Document evidence for the incorporation of human rights-based approach found missing in support of “*enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)*” & “*provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities*”.
3. The response to P.2.1.1 of P.2 (GENDER EQUALITY AND WOMEN’S EMPOWERMENT) was found misleading
4. The response to P.6.2.2 was found misleading
5. Response under ECONOMIC SAFEGUARDING PRINCIPLES of P.6.1.7 found missing.
6. The response to P.9.2.1 of P.9.2 (VULNERABILITY TO NATURAL DISASTER) was found misleading
7. Response under P.9.6 PESTICIDES & FERTILISERS of P.9.6.6. found missing.
8. Response under “Would the project involve or lead to” of P.9.9.8 found missing.
9. In line with Section D.1 as stated “During this monitoring period, no chemical pesticides and fertilizer were used”, whereas in Appendix 1, response to, P.9.6.1 (Would the project involve or lead to) was selected as **potentially**. PD shall justify the inconsistency found. In support to this Chemical Pesticide Policy found missing.
10. Response under P.9.10. HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS found missing.

PD shall provide the clarification for all the above-mentioned statements.

Project Developer response	Date: 24/06/2024
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| <ol style="list-style-type: none"> 1. The response to P.1.1.1 & P.1.1.2 of P.1(Human Rights) has been corrected in revised PDD in p65. 2. On August 28, 2005, the Standing Committee of the National People’s Congress approved China’s accession to International Labour Convention No. 111, the Convention against Discrimination in Employment and Occupation. According to the Article 12,13 and 14 of Labor Law of the People’s Republic of China, it is required to ensure the equal employment rights of women, people with disabilities, and others with the non-discrimination and equality human rights principle. And the corresponding link is added as footnote 11. 3. The response to P.2.1.1 of P.2 (GENDER EQUALITY AND WOMEN’S EMPOWERMENT) was found misleading has been corrected in revised PDD. 4. The response to P.6.2.2 has been corrected in revised PDD. 5. Response to ECONOMIC SAFEGUARDING PRINCIPLES of P.6.1.7 has been added in revised PDD. 6. The response to P.9.2.1 of P.9.2 (VULNERABILITY TO NATURAL DISASTER) has been corrected in revised PDD. 7. Response to P.9.6 PESTICIDES & FERTILISERS of P.9.6.6. has been added in revised PDD. 8. Response to “Would the project involve or lead to” of P.9.9.8 has been added in revised PDD. 9. As described in section D.1 “During this monitoring period, no chemical pesticides and fertilizer were used, the response to P.9.6.1 “chemical pesticides use for pest management” has corrected as “No”, which is consistent with the description above. And the “Chemical Pesticide Policy” is not applicable. 10. Response to P.9.10. HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS has been added in revised PDD. | |
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Documentation provided by Project Developer

VVB assessment	Date: 16/08/2024
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| <p>Based on the review of Appendix 1 of GS PDD, VVB has assessed the following:</p> <ol style="list-style-type: none"> 1. The response to P.1.1.1 & P.1.1.2 of P.1(Human Rights) has been reported as “NO” for P1.1.1 and P1.1.2. | |
|--|--|

<ol style="list-style-type: none"> 2. Labour Law of the People's Republic of China - (mofcom.gov.cn) ensures the equal employment rights of women, individuals with disabilities, and others are upheld in accordance with principles of non-discrimination and human rights equality. 3. Response to P.2.1.1 of P.2 (GENDER EQUALITY AND WOMEN'S EMPOWERMENT) has been reported as "NO" and has been selected as the project activity. 4. Response to P.6.2.2 was reported as "NO" has been selected as the project activity. 5. Response under ECONOMIC SAFEGUARDING PRINCIPLES of P.6.1.7 has been provided. 6. The response to P.9.2.1 of P.9.2 (VULNERABILITY TO NATURAL DISASTER) has been reported as "NO" for the use of pesticides and fertilizers. 7. Response under P.9.6 PESTICIDES & FERTILISERS of P.9.6.6. has been provided in accordance with the project implementation and management plan. 8. Response under "Would the project involve or lead to" of P.9.9.8 has been reported as non-applicable according to project activity. 9. Response to P.9.6.1 "chemical pesticides use for pest management" has corrected as "No", and the "Chemical Pesticide Policy" is not applicable. 10. Response to P.9.10. HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS has been added as "NO". <p>Based on the remarks added to the revised GS PDD for the above point raised, satisfactory response has been provided by the PD.</p> <p>CL has been closed</p>
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CL	11	Section no.	3.6 of GS methodology 2.1	Date: 09/06/2024
Description of CL				
<p>VVB based on the review of GS PDD, it has been assessed that "<i>Selective Harvesting</i>" is used as silvicultural method.</p> <p>As per Section 3.6 of GS methodology 2.1, PD shall demonstrate how "<i>long-term CO2 removals has been determined by the "tree biomass" when a MU reaches its equilibrium.</i>"</p> <p><i>Demonstration to Selective harvesting is found missing.</i></p>				
Project Developer response				Date: 24/06/2024
<p>As the section 3.6.7 of the GS methodology 2.1, "If the silvicultural method applied/envisioned is selective harvesting or conservation forest, the long-term CO2 removal is determined by the 'tree biomass' when a MU reaches its equilibrium". According to the section 3.6.2 of the GS methodology, for every MU a growth-model and conversion factors shall be determined. The long-term CO2 removal is evaluated using the local growth-model based on the trees. The growth-model of <i>Populus simonii</i> source a book "Lv Wen. Populus Simonii in North China, 2002". And the growth-model of <i>Pinus sylvestris</i> source a reference "Zhang jiangdong, Jiang lingling, Xu zhongqi, et al. Study on growth regularity of Pinus sylvestris var. mongolica in Saihanba area[J].Forestry and Ecological Sciences, 2019, 034(002):135-140". They are all the local study results for growth-model of specific trees of the project planted.</p>				
Documentation provided by Project Developer				
VVB assessment				Date: 16/08/2024
<ul style="list-style-type: none"> • Based on the review of <i>Populus Simonii</i> in North China+-π'±±ΣΩ-°"∂—Ó.pdf and Study on growth regularity of <i>Pinus sylvestris</i> var. mongolica.pdf, VVB has assessed that for <i>Pinus sylvestris</i>, study found that the total growth, annual growth and average growth of I. status <i>P. sylvestris</i> var. mongolica were significantly higher than those of II. status. At the age of 60, <i>Pinus sylvestris</i> var. mongolica is still in a period of rapid growth. • In case of Poplar, it has been sated that for normal growth, the high growth period of <i>Populus microphylla</i> is about 15 years ago, up to more than 20 m, and then the growth is gradually slow, and the diameter growth period is about 20 years ago. <p>Following equation as growth model and diameter has been used for biomass estimation in MU</p>				

For Poplar:

表 3—1. 小叶杨生长进程表

年龄	5	10	15	20	25	29
生长情况						
树高 (m)	4.2	10.6	14.4	16.6	18.6	19.9
直径 (m)	5.3	20.7	16.2	25.4	28.9	33.0
胸高断面积 (m ²)	0.00221	0.02061	0.03365	0.05067	0.06560	0.8553
材积 (m ³)	0.00934	0.09814	0.21746	0.36228	0.53080	0.77636

地点: 银川南郊

For Pinus sylvestris:

期 张建东等: 塞罕坝地区樟子松生长规律研究 137

表 1 塞罕坝地区樟子松的生长模型

Table 1 The growth model of *Pinus sylvestris* var. *mongolica* in Saihanba

地位级 Site class	林木 Tree	指标 Factor	模型 Model	A	b	c	r
I	优势木	胸径	$y = A + b \log(t+c)$	-28.05	14.15	2.00	0.96
		树高	$y = A(1 - e^{-at})^b$	27.35	1.59	0.04	0.98
		材积	$y = A(1 - e^{-at})^b$	2.04	3.92	0.03	0.99
I	标准木	胸径	$y = A + b \log(t+c)$	-24.34	11.90	2.00	0.96
		树高	$y = A(1 - e^{-at})^b$	18.94	2.20	0.06	0.98
		材积	$y = A(1 - e^{-at})^b$	1.27	3.58	0.03	0.92
	优势木	胸径	$y = A + b \log(t+c)$	-30.58	13.87	2.00	0.97

CL has been closed

CL	12	Section no.	PDD of Design Certification Renewal, Appendix 3	Date: 09/06/2024
Description of CL				
<ol style="list-style-type: none"> VVB based on the review of GS PDD has assessed that "Herding to a reasonable degree is good for the ecosystem as the excrements of livestock will help the vegetation to grow and regenerate". PD is requested to provide relevant binding guidelines. Forest Management Plan is found missing as per the year of plantation mentioned in forest management applied (past and future) Evidence proof for the initial project funding for year 2014 by Roots and Shoots has been found missing. 				
Project Developer response				Date: 24/06/2024
<ol style="list-style-type: none"> In order to ensure the survival rate of seedlings in the project area, this project has chosen to ban grazing. The description of "Herding to a reasonable degree is good for the ecosystem as the excrements of livestock will help the vegetation to grow and regenerate" is ambiguous in PDD and has been deleted. Actually, the herding is strictly prohibited in the project area. The Forest Management Plan has been provided as evidence. The project has been implemented for 10 years, the initial funding risk no more exists, the relevant description in Appendix 3 of PDD has been updated accordingly. 				
Documentation provided by Project Developer				
PDDCL12-evidence				
VVB assessment				Date: 16/08/2024
<p>VVB based on the review of management plan for year 2014 and 2016 and updated GS PDD has assessed the following:</p> <ol style="list-style-type: none"> Herding has been found prohibited in the project area. Tongliao_Management Plan-2014.pdf and Tongliao_Management Plan-2016.pdf has been provided for the project activity "to sustain the ecological function of the forest, it is crucial to monitor and manage different age classes of forests in distinct ways. Therefore, MTP forestry technicians use information on the poplar species involved in the project and related research to structure the long-term management plan into four stages based on forest age: young forest, middle-aged forest, near-mature forest, and mature forest". 				

3. Appendix 3 of GS PDD has been updated with the deletion of description of initial project funding.
CL has been closed

CL	13	Section no.	B5.2 Ongoing Financial Need	Date: 09/06/2024
Description of CL				
In compliance with Section 4.1.52 & 4.1.53 of GS Principles & Requirements v 1.2,				
<i>“The project shall provide a qualitative narrative, supported by an overview of project finances, that demonstrates how the finance derived Gold Standard Certification is material to the ongoing sustainability of the Project. The narrative may include, but not limited to the following;</i>				
<ul style="list-style-type: none"> (a) <i>Information highlighting the key categories and amounts or relative proportions (%) of project income and outgoings, including the relative proportion of certification related cost and revenue.</i> (b) <i>Description on how finance derived Gold Standard Certification contributes to or is being used to sustain or enhance the project.</i> (c) <i>Where no revenue is realised from Gold Standard certification during a given period, this would be considered a FAR for the next Issuance.</i> 				
<i>The submission of the information to demonstrate OFN is mandatory, however this information will not be used for formal decision making to decide whether a project shall renew or not.”</i>				
<ul style="list-style-type: none"> 1. Based on the review of GS PDD and the supportive document for On Going Financial Need, VVB has assessed that valid document proof of the revenue received have been found missing. 2. PD shall provide the supportive document detailing the revenue made in achieving the various aspects mentioned in GS PDD 				
Project Developer response				Date: 24/06/2024
<ul style="list-style-type: none"> 1. Due to the current unstable prices of GS VER, the issued GS VER of the first monitoring period has not been retired yet. Please see the website https://registry.goldstandard.org/projects/details/1205 Thus, there are no carbon revenue received for project proponent. The key categories and amounts or relative proportions (%) of project outgoings, including the relative proportion of certification related cost and revenue were paid in advance by the PD and Project proponents. 2. The supportive document for expenditure plan of the carbon revenue would be provided as evidence and the description of Section B.2 “Ongoing Financial Need” of the PDD has been modified according to the evidence in page 38. 				
Documentation provided by Project Developer				
PDDCL13- Expenditure plan of the carbon revenue				
VVB assessment				Date: 16/08/2024
<ul style="list-style-type: none"> 1. VVB based on the review of GSF Registry (goldstandard.org) has found that 11587 GS VER has been issued for year 2018,2019 & 2020 and 0 VER has been retired. PD is requested to clarify whether this issued credit was realised by the Gold Standard in the 1st Monitoring period or not, otherwise this would be considered a FAR for the next Issuance, where no revenue is realised from Gold Standard certification during a given period. PD is furthermore requested to provide the valid document proof or receipts of the revenue received for the On-Going Financial Need. 2. In line with section B5.2, it has been found that the funds come from government subsidies and public welfare organizations, which typically cover only the initial afforestation costs. These sources offer limited economic returns and often result in a lack of investment enthusiasm. Maintaining afforestation results demands ongoing financial investment, and the government's initial funding is insufficient. As a public welfare forest, it lacks investment appeal and must rely on carbon revenue for additional support. 				
CL is still Open				
Project Developer response				Date 26/08/2024

Response to 1: Actually, 11587 tCO₂e is the net emission reductions during the first monitoring period, and the amount issued for the first monitoring after deducting 20% buffer is 9269 tons. In fact, as the GSVER for the first monitoring period has not been retired yet. So, there is no evidence of the project receiving carbon benefits. At present, the development and maintenance costs of the project, including the first monitoring period and this monitoring period listed in expenditure plan of the carbon revenue, have been all paid in advance by the project owner.

Documentation provided by Project Developer

VVB assessment **Date** 11/09/2024

PD has clarified that the projects 1st monitoring VERs are not yet retired and clarified that the ongoing costs are paid by the project owner itself. However, in compliance with Section 4.1.52 & 4.1.53 of GS Principles & Requirements v 1.2, “*The project shall provide a qualitative narrative, supported by an overview of project finances, that demonstrates how the finance derived Gold Standard Certification is material to the ongoing sustainability of the Project. The narrative may include, but not limited to the following;*

(c) Where no revenue is realised from Gold Standard certification during a given period, this would be considered a FAR for the next Issuance.

Since no revenue is generated for the 1st monitoring period VERs, a FAR has been raised to for the next Issuance.

CL has been closed. FAR 01 is raised.

CL	14	Section no.	D2, Q4	Date: 09/06/2024
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Description of CL

Based on the review of GS PDD, VVB has assessed that for Q4. “*Is an Expert required to assist with Gender issues at the Stakeholder Consultation?*” In reply appropriate justification is found missing.

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

According to the Article 12 and 13 of Labor Law of the People's Republic of China, it is required to ensure the equal employment rights of women with the non-discrimination. Therefore, there is not an expert required. The GS PDD has been revised in page 63.

Documentation provided by Project Developer

https://www.mohrss.gov.cn/wap/zc/fgwj/201601/t20160119_232110.html

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

VVB based on the review of updated Section D.2 of GS PDD and Labor Law of the People’s Republic of China has assessed the following:

Article 12: Labourers shall not be discriminated against in employment due to their nationality, race, sex, or religious belief.

Article 13: Women shall enjoy equal rights as men in employment. Sex shall not be used as a pretext for excluding women from employment during recruitment of workers unless the types of work or posts for which workers are being recruited are not suitable for women according to State regulations. Nor shall the standards of recruitment be raised when it comes to women.

According to the response and document, no expert is required for gender issue at the stakeholder consultation.

CL has been closed

CL	15	Section no.	GS Risks & Capacities Guideline for 'Land Use & Forest'	Date: 09/06/2024
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Description of CL

As per GS Risks & Capacities Guideline for 'Land Use & Forest', the assessment of risks has been found missing in PDD.

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

<p>In GS PDD Template, the corresponding section was absent. The Risks & Capacities Guideline for 'Land Use & Forest' projects has been used and the risks has been assessed in "Risk & Capacities Template" in GS website https://globalgoals.goldstandard.org/203g-ar-luf-risks-capacities-guideline/ The Risk & Capacities of the project has been provided as evidence "GS LUF Risks and Capacities assessment tool and associated evidence".</p>			
Documentation provided by Project Developer			
PDDCL15-GS LUF Risks and Capacities assessment tool and associated evidence			
VVB assessment	Date: 17/08/2024		
<p>Based on the review of "201-LUF-G-RC-T of Tongliao", VVB has assessed the following:</p> <ul style="list-style-type: none"> (a) For risk category 1.7, mitigation measures has been found missing (b) For risk category 1.9, choice of species has been found missing under mitigation measures. 			
CL is still open			
Project Developer response	Date 26/08/2024		
<p>According to the Risk scoring systems of Risks & Capacities Guideline for 'Land Use & Forest' projects as followed:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Total score of the risk⁴²</td> <td>Multiplication of probability, impact and scale leads to a score of the project.⁴² Min. score: 0 Max. score: 27⁴² ↓ This score determines the need for risk mitigation measure:⁴² Score 7 or higher: Risk not acceptable, mitigation measures obligatory⁴² Score 6 or lower: mitigation measures not required, but recommended⁴²</td> </tr> </table> <p>When the total score of the risk is 6 or lower, mitigation measures not required, although it be recommended.</p> <ul style="list-style-type: none"> (a) The total score of the risk category 1.7 is 1 and the mitigation measures not required. (b) For risk category 1.9, the tree species selected are <i>Populus simonii</i> Carrière and <i>Pinus sylvestris</i> L. var. <i>mongholica</i> Litv. The document "201-LUF-G-RC-T of Tongliao" has been revised. 		Total score of the risk ⁴²	Multiplication of probability, impact and scale leads to a score of the project. ⁴² Min. score: 0 Max. score: 27 ⁴² ↓ This score determines the need for risk mitigation measure: ⁴² Score 7 or higher: Risk not acceptable, mitigation measures obligatory ⁴² Score 6 or lower: mitigation measures not required, but recommended ⁴²
Total score of the risk ⁴²	Multiplication of probability, impact and scale leads to a score of the project. ⁴² Min. score: 0 Max. score: 27 ⁴² ↓ This score determines the need for risk mitigation measure: ⁴² Score 7 or higher: Risk not acceptable, mitigation measures obligatory ⁴² Score 6 or lower: mitigation measures not required, but recommended ⁴²		
Documentation provided by Project Developer			
VVB assessment	Date 11/09/2024		
<p>VVB based on the review of "PDDCL15-201-LUF-G-RC-T of Tongliao-2nd" VVB 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. 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 "<i>trees species selected are Populus simonii Carrière and Pinus sylvestris</i> L. var. <i>mongholica</i> Litv which can survive in sandy areas as well".</p>			
CL has been closed.			

Table 3. CAR from this Design Certification Renewal

CAR	01	Section no.	Stakeholder Meeting	Date: 09/06/2024
Description of CAR				
<p>(a) VVB based on the review of the document provided by PD "<i>Project Meeting presentation-2014 & 2016</i>", found that the date of project meeting is missing in the document provided.</p> <p>(b) Based on the review of the document provided by PD "<i>LUF INPUT & GRIEVANCE MECHANISM-2014 & 2016</i>", found that the response to the input and grievance questions mentioned in the document is unclear.</p>				
Project Developer response				Date: 24/06/2024
<p>(a) According to the document "LSC_Meeting Attendance Form-2014&2016", the date of the project meeting is April 10, 2014 for the initial planted area in 2014 and December 12, 2014 for the new planted area in 2016.</p> <p>(b) The form of grievance questions for relevant issues have been stipulated in manual book "LUF INPUT & GRIEVANCE MECHANISM 2014 & 2016", and the contact information of the contact</p>				

<p>person has been provided. This manual is posted on the village bulletin board for the convenience of those with opinions to fill out and reflect at any time. In the first monitoring time, there are no input and grievance questions were recorded in the manual book.</p>	
<p>Documentation provided by Project Developer</p>	
<p>PDDCAR01-1-LSC_Meeting Attendance Form-2014&2016 PDDCAR01-2-LUF INPUT & GRIEVANCE MECHANISM book</p>	
<p>VVB assessment</p>	<p>Date: 16/08/2024</p>
<p>(a) VVB based on the review of supporting documents “LSC_Meeting Attendance Form-2014” for project start date i.e. 11/04/2014, LSC meeting took place on 10/04/2024 and as per document “LSC-Meeting Attendance Form-2016” , LSC meeting has taken place for 12/12/2015 for year 2016.</p> <p>(b) Based on the review of the document provided by PD “LUF INPUT & GRIEVANCE MECHANISM-2014 & 2016”, found that the response to the input and grievance questions mentioned in the document is unclear. For example: Provide the response to the Question under comment section, Action requested from the project owner, response from the project owner, person designated with responsibility by project owner and issue resolved?</p>	
<p>CAR is still open</p>	
<p>Project Developer response</p>	<p>Date 16/08/2024</p>
<p>Response to (b): After the manual book “LUF INPUT & GRIEVANCE MECHANISM 2014 & 2016 was posted on the local bulletin board, no direct feedback was received from local residents. When the contact person on the manual book receives feedback from local stakeholders, they will record the date of the stakeholders’ appeal, the main issues of the appeal, and then report to the project owner. Within 7 days, they will provide the stakeholders with a response and solution. The relevant description has been revised in GS PDD (page 66).</p> <p>In the first monitoring time, there are no input and grievance questions were recorded in the manual book. Therefore, there are no relevant records and response. But during this monitoring period, relevant opinions and responses were received, as shown in Evidence “Records and photos from contacts of Grievances”.</p>	
<p>Documentation provided by Project Developer</p>	
<p>Records and photos from contacts of Grievances</p>	
<p>VVB assessment</p>	<p>Date 11/09/2024</p>
<p>PD has clarified that there are no significant grievances received from the stakeholders during this period and the GS PDD (page 71) has been revised on the same and checked by the VVB. Further, in section G.1 of the GS MR, it checked that during this monitoring period there are relevant opinions and responses were received as provided in the section. However, evidence “Records and photos from contacts of Grievances” are not provided for the same. Thus, PP is requested to provide the same and clarify what are the implemented action for those received opinions.</p>	
<p>CAR is still open.</p>	
<p>Project Developer response</p>	<p>Date 23/09/2024</p>
<p>The evidence of “Records and Response from contacts of Grievances” and “The photos of the Grievance Expression Process Book published on the notice board” has been provided as evidence. The collection, response, resolution, and processing procedures for relevant grievances are separately organized and provided in a Word document as evidence. The relevant steps about the processing procedures for relevant grievances were also added in section G.1 of the GS MR (page 34-37).</p>	
<p>Documentation provided by Project Developer</p>	
<p>PDDCAR-01 3rd</p>	
<p>VVB assessment</p>	<p>Date: 01/10/2024</p>
<p>Based on a review of the revised GS MR, 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</p>	

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.

CAR is closed

CAR	02	Section no.	B6.2 of GS PDD for Design Certification	Date: 09/06/2024
Description of CAR				
<p>VVB based on the review of Section B6.2 of GS PDD found the following:</p> <ul style="list-style-type: none"> (a) It was found that the description provided for D_{tree} is inappropriate. (b) Value applied for BEF_{tree} found incorrect as per the A/R Methodology v2. (c) In line with “<i>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)</i>”, value found for aboveground biomass of Sparse bushes is 0.7988 tC/tdm was found inconsistent. 				
Project Developer response				Date: 24/06/2024
<ul style="list-style-type: none"> (a) The D_{tree} has corrected as “Wood density”, and the unit has corrected as “t d.m/m³” in revised PDD. (b) After checking the value of BEF in section 3.10.2 of A/R Methodology v2, the default value is 1.1. The 1.3 is just a example value in section 3.9.6 of the A/R Methodology v2. Therefore, the value 1.1 applied for BEF_{tree} in GS PDD is correct. (c) As response to the CL08 (b), the aboveground shrub biomass is the sum of aboveground shrub biomass and standing dead wood, which is $0.7025+0.0963=0.7988$ tdm/ha. The difference in decimal places is due to the involvement of unit conversion for g/m² to t/ha. The unit of 0.7988 has been corrected from tC/tdm to t dm/ha in page 44 of revised PDD. 				
Documentation provided by Project Developer				
VVB assessment				Date: 16/08/2024
<p>VVB based on review of PDD, has assessed the following:</p> <ul style="list-style-type: none"> (a) As per Data/parameter in Section 6.2 of GS PDD and methodology A/R V2.1, it has been found that the value applied 0.3 for wood density and description provided for the parameter has been found valid and correct. (b) Value applied (1.1) for BEF_{tree} found correct as per the A/R Methodology v2.1 (c) Based on the review of the scientific literature and the PD response it has been found that the value applied is consistent. 				
CAR has been closed				

CAR	03	Section no.	B.7 GS PDD for Design Certification	Date: 09/06/2024
Description of CAR				
<p>Based on the review of the GS PDD, VVB has found that description to QA/QC is found missing. PD shall provide the QA/QC applied to data and parameters applied for monitoring.</p>				
Project Developer response				Date: 24/06/2024
<p>Section 7 of “GB/T 38590-2020 Technical regulations for continuous forest inventory” are applied for the QA/QC of the monitoring parameters. The description to QA/QC has been added in section B.7 of GS PDD (pages 52-56).</p>				
Documentation provided by Project Developer				
PDDCAR03-GBT 38590-2020 Technical regulations for continuous forest inventory				
VVB assessment				Date: 16/08/2024
<p>VVB based on the review of the web link GB/T 38590-2020 English PDF (chinesestandard.net) has found that Section 7 elaborated quality inspection with sub- heads as follows:</p> <ul style="list-style-type: none"> • 7.1 Quality Management • 7.2 Preparatory work supervision and inspection, • 7.3 Field survey quality check • 7.4 Inspection and acceptance of investigation data 				

- 7.5 Remote sensing interpretation quality inspection
- 7.6 Quality Inspection of Internal Statistics

It has been found that under this regulation forest cover type and total vegetation cover has been monitored and reviewed.

CAR has been closed

CAR	04	Section no.	GS PDD for Design Certification	Date: 09/06/2024
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Description of CAR

Based on the review of the PDD, VVB has observed the following:

1. the tree species is not mentioned for Poplar genus.
2. The end date of the crediting period of project is not mentioned under Section C2 of the GS PDD.
3. PD shall provide the vintage year calculation along with the GS Buffer reduction in GS PDD & MR.

Project Developer response	Date: 24/06/2024
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1. The tree species of Poplar genus is *Populus simonii* Carrière, which has been revised throughout the GS PDD and MR.
2. As the subheading of section C.2.1 is “Start date of crediting period”, so only the start date of crediting period added here, nor the end date of the crediting period.
3. As the TEMPLATE GUIDE of the GS PDD, the section B.6.4 only give the Column Header of no “buffer”. The vintage year has added in revised GS PDD and MR, and the buffer reduction will be added in the carbon calculation table of PDD “B.1&B.4- Tongliao_CO2-Fixation Calculation-PD-track-20240806” and MR “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806”.

Documentation provided by Project Developer

VVB assessment	Date: 16/08/2024
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VVB based on the review of the GS PDD and carbon calculation sheet has assessed the following:

1. Tree species for Poplar has been mentioned in the document as is *Populus simonii* Carrière
2. As per the template v1.5 of GS PDD, it was found under Section 2.1 to mention the Start date of the crediting period.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

>>

C.1.2 Expected operational lifetime of project

>>

C.2. Crediting period of project

C.2.1 Start date of crediting period

>>

C.2.2 Total length of crediting period

>>

3. Vintage year has been updated in GS PDD and MR with the buffer percentage value of 20% and the same has been found applied in the B.1&B.4- Tongliao_CO2-Fixation Calculation-PD-track-20240806” and MR “L.2-GS3031_Tongliao CO2-Fixation calculation of 2nd MP-20240806”.

CAR has been closed

CAR	05	Section no.	Table 1 and Section B.6.3 & B.6.4 of the GS PDD	Date: 09/06/2024
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Description of CAR

Based on the review of the GS PDD, VVB has assessed that estimated value for SDG 15 and 16 is missing under Table 1 and Section B.6.3 & B.6.4 of the GS PDD.

Project Developer response	Date: 24/06/2024
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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 indicators of SDG 8 and 15 values has been added in Section B.6.3 & B.6.4 of the GS PDD according to the SDG TOOL (pages 54-55).

Documentation provided by Project Developer

VVB assessment	Date: 16/08/2024
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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. Furthermore, Value for SDG 8 as 11 has been found inconsistent with the PDD and MR

CAR is still open

Project Developer response	Date 27/08/2024
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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.

Documentation provided by Project Developer

VVB assessment	Date DD/MM/2024
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Please refer the CL02 assessment.

CAR has been closed.

CAR	06	Section no.	B.7.3 of GS PDD	Date:	09/06/2024
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Description of CAR

In line with Section B.7.3 of GS PDD,

<i>"Provide training and education to enhance their capacity in forest management and conservation"</i>	
It is confirmed that Shanghai Roots & Shoots provides instructions and training that the villagers need. However, the evidence is missing and the relevant description of if the workers have supervision to safely implement the project is missing.	
Project Developer response	Date:
The training and education for forest rangers has 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 Hoiquin Left Rear Banner.	
CAR has been closed	

CAR	07	Section no.	Safeguarding Principles 9.2 Vulnerability to natural disaster	Date: 09/06/2024
Description of CAR				
In line with Safeguarding Principles 9.2 Vulnerability to natural disaster of the GS PDD, <i>"The monitoring team monitored area of fire, diseases and pests in the project area every year by interview."</i> VVB found that the area is quite dry and the risk of fire may be high. After the trees grow to a certain age (about five years), the risk of fire is elevated, and the necessary measures for fire preventing is missing.				
Project Developer response				Date: 24/06/2024
As the document "A.2 GS LUF Risks and Capacities assessment" assessed, the present score of "1.1 Rire Damage" is 6 and Corrected Score with the mitigate measures is 2, which are all lower than the 6. According to the document, "Score 0 - 6 designates risks for which mitigation measures are not mandatory under Gold Standard (though still recommended)". Actually, the local government set the fireproofing period (Every year from March 15th to June 15th, and from September 15th to November 15th) when using fire is forbidden in the open air; The project owner will also set fireproofing installation around the forest and specially assigned person (forest rangers) will be trained to oversee and make sure all the fireproofing measures are well in operation. These measures to mitigate fire risk has been added the GS PDD. Some of patrol records of local forest rangers has been provided as evidence.				
Documentation provided by Project Developer				
PDDCAR07-Patrol records of forest rangers				
VVB assessment				Date: 16/08/2024
VVB based on the review of "Tongliao Public welfare Forest Ranger, Management Log", has assessed that any 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. 10 Don'ts for forest fire preventions has been found listed in the management log such as prohibition on burning of weeds on edges, candles, paper, smoking, wood chopping and burning, avoidance of fire activities such as camping, tourism.				
CAR has been closed				

CAR	08	Section no.	A of PDD	Date: 09/06/2024
Description of CAR				

In section A of PDD, the actual status of the project's impact during this monitoring period needs to be clarified. Accordingly, the current situation of forest management relevant to the project activity during this performance period is not provided.	
Project Developer response	Date: 24/06/2024
As the TEMPLATE GUIDE of the GS PDD, there are no demand for the description of "current situation of forest management relevant to the project activity during this performance period" in section A. Actually, the actual status of the project's impact during this monitoring period has been classified in MR. For the convenience of understanding, the actual status of the project's impact during this monitoring period have been added in section A.1 of the revised GS PDD.	
Documentation provided by Project Developer	
VVB assessment	Date: 16/08/2024
Based on the review of Section A of GS PDD, VVB has assessed that second monitoring period from 01/01/2021 to 31/12/2023 has led to increased carbon sequestration by the plantation, enhanced forest coverage, improved biodiversity, provided additional income to local stakeholders, and reduced desertification, thereby contributing to sustainable land management. However, in line with Section A " <i>Meanwhile, this project generated extra income for local stakeholders, brought advanced agro-forestry practices to the community</i> ". VVB has been found that the project activity follows afforestation/ reforestation practices rather than agroforestry. CAR is still open.	
Project Developer response	Date 27/08/2024
The Section A of the PDD has been corrected as afforestation/ reforestation practices in page 6.	
Documentation provided by Project Developer	
VVB assessment	Date 10/09/2024
VVB based on the review of the PDD, confirms the section A1 (page.6) of the PDD has been revised appropriately by stating that the project activity follows afforestation/ reforestation practice. CAR has been closed.	

CAR	09	Section no.	Appendix 1 of the PDD	Date: 09/06/2024
Description of CAR				
VVB based on the review of Appendix 1 of the PDD, has found the following: <ul style="list-style-type: none"> 1. the actual risk during this MP is not specified. 2. how the working agreements with all individual workers implemented during this performance period is not clarified. 3. actual training provided during this performance period is not clarified. 4. actual safe protective equipment provided during this performance period is not clarified. 5. the actual situation of fertilizer utilization of this performance period is not provided. 6. the actual situation of waste management of this performance period is not provided. 7. the actual situation of measures for waste products and their spillage of this performance period is not provided. 				
Project Developer response				Date: 24/06/2024
<ul style="list-style-type: none"> 1. As the document "A.2 GS LUF Risks and Capacities assessment" assessed, the actual risk during this MP has been specified. The GS LUF Risks and Capacities assessment has been provided as evidence. The actual risk during this MP has been specified in P 9.2 of the Appendix 1 of the PDD. 2. The employment agreements of forest rangers in this MP has been provided as supplementary evidence. In this monitoring time, 11 villagers have been employed as forest ranges with a salary of 14,400 RMB per year, who are on the duty of the daily forest management. These performance bouts working agreements has been classified in P 6.1 of revised Appendix 1 of GS PDD. 3. Some of trainings about responsibilities of daily work have been provided for the forest rangers in this monitoring period. The frequency of the training is about 1-2 times every year. The special 				

training records has been provided as evidence. These performance about training has been classified in P 6.1 of revised Appendix 1 of GS PDD.

4. The main work of the villagers involved in the project is replanting the trees and patrolling. These activities in this MP did not involve any dangerous operations and didn't need the protective equipment. These performance about safe equipment has been classified in P 6.1 of revised Appendix 1 of GS PDD.

5. During this monitoring period, no chemical pesticides and fertilizer were used. The P 9.6 of revised Appendix 1 of GS PDD has been classified.

6. The Project does not involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials in this monitoring time. This description has been added in P9.5 of revised Appendix 1 of GS PDD.

7. As described above, the project is an afforestation project which has no waste products.

Documentation provided by Project Developer

PDDCL15-GS LUF Risks and Capacities assessment tool and associated evidence

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

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

1. As per updated GS PDD Appendix 1, it has been assessed that P9.2 "Vulnerability to Natural Disaster" has been updated to option NO (not applicable).
2. In line with the employment agreement of forest rangers it has been found that Party A (Kezuohou Banner Forestry and Grassland Bureau) will pay RMB 12147.75 in full before December 2023 to Party B (farmer) under Public Welfare Forest Management and Protection Contract. However, under P6.1 " *In this monitoring time, about 10 of villagers has been employed as forest rangers with an salary of 67.5 RMB/ha/year, who are on the duty of the daily forest management*". Taking Appendix 1 and Contract in consideration, inconsistency has been found with the salary and number of the involved farmers.
3. 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.
4. As per the site visit inspection and PD's response it has been assessed that no dangerous operation and protective equipment has been used in the present monitoring period.
5. As per P9.6 of Appendix 1 of GS PDD, it has been found that no hazardous chemical pesticides and fertilizers has been used involved in this monitoring period, the farmers are not advised to use any harmful chemical pesticides and fertilizers as the area is not prone to insect pest attack as per the web search [7---Brief-forest-pests.pdf \(undp.org\)](#) it has been stated that "Refinement of established pest control standards to more effectively apply control early in an outbreak cycle to effectively prevent full "Release" of insect populations."
6. Based on the review of P9.5 it has been found that afforestation practices do not involve manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials in this monitoring time.
7. Based on the review of P9.5 it has been found that afforestation practices do not involve manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials in this monitoring time.

CAR is still open.

Project Developer response **Date** 27/08/2024

Response to 2: According to the Entrustment Contract for Public Welfare Forest Management and Protection, the Management area of the party B (farmer) is 2,699.01Mu (1ha=15Mu) and the maintenance fee payable by Party A to Party B for the whole year is RMB 12145.545 RMB. The unit

price for maintenance per unit area is $12145.545/(2699.01/15)=67.5$ RMB/ha/year. The salary is consistent between GS PDD and the Contract.

Documentation provided by Project Developer

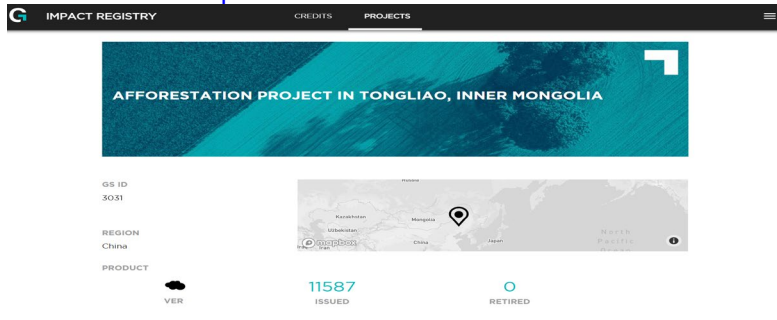
VVB assessment

Date: 11/09/2024

VVB, based on the response provided by the PD and review of the Entrustment Contract-Forest protection, it has been clarified that the Party B (farmer) manages 2,699.01 Mu, and Party A pays an annual maintenance fee of RMB 12,145.54. The unit price is 67.5 RMB/ha/year, which is consistent between the GS PDD, MR and the provided Contracts. Please refer table.2 CL02 assessment.

CAR has been closed.

Table 4. FAR from this Design Certification Renewal/ Performance Certification

FAR	01	Section no.		Date:10/09/2024
Description of FAR				
<p>During the current Design Certification Renewal, PD has clarified that the project's 1st monitoring VERs are not yet retired, the same was verified from the GSF registry as provided below and further PD has clarified that the ongoing costs are paid by the project owner itself.</p> <p>However, in compliance with Section 4.1.52 & 4.1.53 of GS Principles & Requirements v 1.2, <i>"The project shall provide a qualitative narrative, supported by an overview of project finances, that demonstrates how the finance derived Gold Standard Certification is material to the ongoing sustainability of the Project. The narrative may include, but not limited to the following;</i> <i>(c) Where no revenue is realised from Gold Standard certification during a given period, this would be considered a FAR for the next Issuance"</i>.</p> <p>Since, no revenue is generated from the Gold Standard certification for the 1st monitoring period (2018-2020) issued VERs, a FAR has been raised by the VVB for the next issuance in compliance with above GS requirements.</p>				
				
Project Developer response				Date:
Documentation provided by Project Developer				
VVB assessment				Date:

Appendix 3: Certificates of Competency



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/IEC14065:2020, 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 20 th January 2025	 _____ Mr. Vikash Kumar Singh Director-Compliance	Expiry Date 19 th January 2026
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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:

- | | | | |
|---|---|--|---|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input 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
20th January 2025

Expiry Date
19th January 2026

Mr. Vikash Kumar Singh
Director-Compliance

Revision History of the document:

Revision date	Summary of changes
April 2024	Initial Adoption
Jan 2025	Revised as per the latest organogram.

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:

- | | | | |
|---|---|--|---|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input 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 China | | | |

in the following Technical Areas:

- | | | | | |
|----------------------------------|--|----------------------------------|--|----------------------------------|
| <input type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" 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 type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | <input type="checkbox"/> 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
Dec 2023 ¹	Change in the template due to revision in TA and function
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. 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:

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

in the following Technical Areas:

- | | | | | |
|---|---|----------------------------------|---|---|
| <input checked="" type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input checked="" type="checkbox"/> TA 4.1 |
| <input checked="" type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input checked="" 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 checked="" type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input checked="" type="checkbox"/> TA 15.1 | <input type="checkbox"/> TA 16.1 | | |

Issue Date
20th January 2025

Expiry Date
19th January 2026

Mr. Amit Anand
CEO

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