A/R VERIFICATION AND CERTIFICATION REPORT

- 1ST PERIODIC –

M/S HP MID-HIMALAYAN WATERSHED DEVELOPMENT PROJECT (MHWDP)

INDIA: HIMACHAL PRADESH REFORESTATION PROJECT – IMPROVING LIVELIHOODS AND WATERSHEDS

UNFCCC REF. NO. : 4174

Monitoring Period: 2006-07-01 to 2012-12-31
(incl. both days)

Report No: 8110559617 – 13/166

Date: 2015-04-09

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Verification Report:	***Report No.***		***Rev. No.***	***Date of 1st issue:***	***Date of this rev.***
	8110559617 – 13/166		1	2014-11-06	2015-04-09
Project:	***Title:***			***Registration date:***	***UNFCCC-No.:***
	India: Himachal Pradesh Reforestation Project – Improving Livelihoods and Watersheds			2011-03-04	4174
				Verification No.:	
				1st periodic verification	
	Crediting period:			***From:***	***To:***
	☒ *Renewable (20y)* ☐ *Fixed (30y)*			2006-07-01	2026-06-30
	Project Scale:				
	☒ *Large Scale* ☐ *Small Scale*				
Project Participant(s):	***Client:***				
	M/s HP Mid-Himalayan Watershed Development Project (MHWDP)				
	Non Annex 1 country:			***Annex 1 country:***	
	India			Spain,	
	PP from non Annex 1 country:			***PP from Annex 1 country:***	
	M/s HP Mid-Himalayan Watershed Development Project (MHWDP			International Bank for Reconstruction and Development (IBRD) as a trustee for BioCarbon Fund (BioCF) ; Kingdom of Spain - Ministry of Agriculture, Food and Environment and Ministry of Economy and Competitiveness ; Zeroemissions Carbon Trust, S.A.	
				Annex 1 country:	
				Ireland	
				PP from Annex 1 country:	
				Government of Ireland - Department of the Environment, Community and Local Government	
				Annex 1 country:	
				Switzerland	
				PP from Annex 1 country:	
				Syngenta Foundation for Sustainable Agriculture	
Applied methodology/ies:	***Title:***			***No.:***	***Scope(s) / TA(s)***
	Afforestation and reforestation of degraded land			AR-ACM0001 ver. 3	14 /14.1
Monitoring period and monitoring report	***Monitoring period (MP):***			***Monitoring Report:***	
	From:	***To:***	***No. of days:***	***Draft version:***	***Final version:***
	2006-07-01	2012-12-31	***2,376***	2013-03-15 ***Ver 1***	2015-03-13 Ver 8
Verification team / Technical Review and Final Approval:	***Verification Team:***			***Technical review:***	***Final approval:***
	G Ezhilarasu (TL)[1] Lokesh Chandra Dube (TM/TE)[3] Prabhat Kumar (TL)[2]			Alexandra Nebel G. Kochaniewicz	Stefan Winter

[1] From 30-06-2014

	Pankaj Mohan (TM)			
Key dates of verification:	***Publication of MR :***	***DVerR issued:***	***On-site (from):***	***On-site (to):***
	2013-10-08	2013-10-31	2013-10-24	2013-10-30
Summary of Verification opinion	M/s HP Mid-Himalayan Watershed Development Project (MHWDP) has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "India: Himachal Pradesh Reforestation Project – Improving Livelihoods and Watersheds" with regard to the relevant requirements for CDM project activities. As a result of this verification, the verifier confirms that: ☒ all operations of the project are implemented and installed as planned and described in the validated project design document, ☒ the monitoring plan is in accordance with the applied approved CDM methodology, ☒ the installed equipment essential for measuring parameters required for calculating emission removals are calibrated appropriately, ☒ the monitoring system is in place and functional. The project has generated GHG emission reductions, and ☒ the GHG emission removals are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission removals (tCERs) in the above mentioned reporting period as listed below (verified amount).			
Emission removals: [t CO_{2e}]	***Total verified amount***		***As per draft MR:***	***As per PDD:***
	65,582		61,194	170,746
			ER achieved up to 2012-12-31	***ER achieved from 2013-01-01***
			65,582	NA
Document information:	*Filename:*			*No. of pages:*
	2015-04-02 FVR_MHWDP_IC_GE			119

[2] Till 30-06-2014
[3] Till 06-12-2013.

Abbreviations:

A/R	Afforestation and Reforestation
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon dioxide
CO_{2eq}	Carbon dioxide equivalent
DBH	Diameter at breast height
DVerR	Draft Verification Report
ER	Emission Removals
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GIS	Geographical Information System
GPS	Global Positioning System
Ha	Hectare
lCER	longterm certified emission reductions
LULUCF	Land Use, Land Use Change and Forestry
MHWDP	The Mid Himalayan Watershed Development Project
MP	Monitoring Plan
MR	Monitoring Report
PA	Project Activity
PDD	Project Design Document
PP	Project Participant
PSP	Permanent Sampling Plots
QA/QC	Quality Assurance / Quality Control
tCER	temporary certified emission reductions
SOP	Standard Operating Procedure
UNFCCC	United Nations Framework Convention on Climate Change
VFDC	Village Forest Development Committee

VVS	**Validation and Verification Standard**
XLS	**Emission Removals Calculation Spread Sheet**

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1. INTRODUCTION

M/s HP Mid-Himalayan Watershed Development Project (MHWDP) has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the 1st periodic verification of the project

"India: Himachal Pradesh Reforestation Project – Improving Livelihoods and Watersheds*"*

with regard to the relevant requirements for CDM project activities. The verifiers have reviewed the implementation of the monitoring plan (MP) in the registered CDM project.

GHG data for the monitoring period was verified in detailed manner applying the set of requirements, audit practices and principles as required under the Validation and Verification Standard /VVS/ of the UNFCCC.

This report summarizes the findings and conclusions of this 1st periodic verification of the above mentioned UNFCCC registered project activity.

1.1. Objective

The objective of the verification is the review and ex-post determination by an independent entity of the GHG emission removals. It includes the verification of the:

- implementation and operation of the project activity as given in the PDD,
- compliance with applied approved methodology and the provisions of the monitoring plan,
- data given in the monitoring report by checking the monitoring records, the emissions removal calculation and supporting evidence,
- accuracy of the monitoring equipment,
- quality of evidence,
- significance of reporting risks and risks of material misstatements.

1.2. Scope

The verification of this registered project is based on the validated project design document /PDD/, the monitoring report /MR/, emission removal calculation spread sheet /XLS/, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The verification is carried out on the basis of the following requirements, applicable for this project activity:

- Article 12 of the Kyoto Protocol /KP/,

- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1 /MA/, and subsequent decisions made by the Executive Board and COP/MOP,
- other relevant rules, including the host country legislation,
- CDM Validation and Verification Standard /VVS/,
- monitoring plan as given in the registered PDD /PDD/,
- Approved CDM Methodology AR-ACM001 ver 03.0 /METH/.

2. GHG PROJECT DESCRIPTION

2.1. Technical Project Description

Mid-Himalayan Watershed Development Project implemented by Himachal Pradesh Forest Department with financial assistance from the World Bank is a Reforestation project in twelve districts of the Indian state of Himachal Pradesh spread across North-Western Himalayan region. Under the project activity, 420 parcels of degraded land owned by State Forest department (degraded forest land, 3,176.86 ha), Gram Panchayat/Revenue department/ State Forest department (degraded community land, 293.06 ha) and small and marginal farmers (private land holders, 533.15 ha) are used for raising plantations in a land area totaling 4,003.07 hectare. Native species of plants suiting to the project location have been planted in order to sequester atmospheric carbon dioxide and to meet biomass requirements of the communities.

The technology employed by this A/R CDM project activity is environmentally safe propagation using saplings, which are developed over a period of time by decentralized nurseries using good forestry techniques adopted by MHWDP. The seedlings were produced following standard nursery techniques prevalent in the host country. No clonal plantation is used during the monitoring period.

A non-conventional strategy has been adopted with raising plantations of multiple stories and multiple species providing timber, fodder, fruit, fiber and fuel under the project activity. There are 45 species of plants categorized as fast growing and slow growing trees have been planted under restoration forestry, community forestry and farm forestry models. These lands are rain fed lands.

The soil properties were studied before raising plantation. The project activity is not implemented on organic soil. The planting is done by manually digging pits of dimensions 30x30x30 cm^3 and 45x45x45 cm^3 depending on species type on the ground. Alignment is done with 3x3, 4x4 and 5x5 m^2 spacing (including some variations).

The key parameters of the project are given in Table 2-1:

Table 2-1: (a) Technical data of the project activity- Forest land (Restoration forestry)

Parameter	Unit	Value
No. of watershed divisions	-	11
Total reforested area	Ha	2943.14
Planting by digging pits	Cm	45x45x45
Spacing b/w trees	m x m	3 x 3 (and variations)
No. of trees per ha	-	1,100 (and variations)
Tree species (local and scientific name)	Name	Many
Rotation cycle	Years	-
Reforestation method	-	Direct planting

Parameter	Unit	Value
Silvi-cultural/Agro-forestry practices applied	☐	Deep ploughing
	☐	Slash and burn
	☒	Mulching
	☒	Pruning
	☐	Synthetic Fertilizer Application
	☒	Weeding
	☐	Flood irrigation
	☒	Fuel-wood collection
	☐	Harvesting

Table 2-2: (a) Technical data of the project activity- Community land

Parameter	Unit	Value
No. of Gram Panchayats	-	177
Total reforested area	Ha	226.74
Planting by digging pits	Cm	45x45x45
Spacing b/w trees	m x m	3 x 3 (and variations)
No. of trees per ha	-	1,100 (and variations)
Tree species (local and scientific name)	Name	Many
Rotation cycle	Years	-
Reforestation method	-	Direct planting
Silvi-cultural/Agro-forestry practices applied	☐	Deep ploughing
	☐	Slash and burn
	☒	Mulching
	☒	Pruning
	☐	Synthetic Fertilizer Application
	☒	Weeding
	☐	Flood irrigation
	☒	Fuel-wood collection
	☐	Harvesting

Table 2-3: (a) Technical data of the project activity- Private land (Farm forestry)

Parameter	Unit	Value
Total reforested area	Ha	40.31
Planting by digging pits	Cm	45x45x45
Spacing b/w trees	m x m	(and variations)
No. of trees per ha	-	1,100 (and variations)
Tree species (local and scientific name)	Name	many
Rotation cycle	Years	-
Reforestation method	-	Direct planting

Parameter	Unit	Value
Silvi-cultural/Agro-forestry practices applied	☐	Deep ploughing
	☐	Slash and burn
	☒	Mulching
	☒	Pruning
	☐	Synthetic Fertilizer Application
	☒	Weeding
	☐	Flood irrigation
	☒	Fuel-wood collection
	☐	Harvesting

2.2. Project Location

The details of the project location are given in Table 2-4:

Table 2-4: Project Location

No.	Project Location
Host Country	India
Region:	State of Himachal Pradesh
Project location address:	Districts: Bilaspur, Chamba, Hamirpur, Kangra, Kullu, Mandi, Shimla, Sirmaur, Solan.
Latitude:	Please refer to the Enclosure #1 (excel sheet)
Longitude:	Please refer to the Enclosure #1 (excel sheet)

2.3. Project Verification History

Essential events since the registration of the project are presented in the following Table 2-5.

Table 2-5: Status of previous Monitoring Periods

#	Item	Time	Status
1	1st Monitoring period	2006-07-01 to 2012-12-31	Awaiting Issuance Request (present verification)

An overview of all Post Registration Changes is given in the following table.

Table 2-4: Overview Post Registration Changes

#	Applicable from – to / as of	MP	Type of post registration change [1)]	Description	Status[2)] / Date
1	NA		TDfrMP	NA	NA
2	NA		TDfMM	NA	NA
3	NA		CrPDD	NA	NA
4	NA		PCfrMP	NA	NA
5	NA		PCfMM	NA	NA
6	NA		CoPD	NA	NA
7	2006-07-01 to 2012-12-31 2006-07-01 to 2026-06-30		CstAR	1. Changes in year wise areas planted, possibly resulting in a part of the project area not being planted. (EB 66 Annex 24 §§ a) The Project description mentions that the project will be implemented in 4003.07 ha of degraded lands. However for this monitoring period the plantations were done only in 3210.19 ha and the remaining 792.88 hectares will be completed in the next monitoring period. This is due to the minor change in the planting schedule. And also the area under the A/R CDM project is still the same as mentioned in the registered PDD only the planting schedule changed hence accepted. 2. Changes in species composition, if the changes are demonstrated at verification to be consistent with the baseline identification and additionality demonstration made at the validation stage. (EB 66 Annex 24 §§ b) The species planted in the project is changed. But the proportion of fast and slow growing species planted is the same as defined in the PDD. The information is provided in section B1 of the MR. Verification team checked the characteristic of the species and confirmed the same and as such it	Accepted by DOE

#	Applicable from – to / as of	MP	Type of post registration change [1)]	Description	Status[2)] / Date
				will not affect the additionality and baseline determined at the validation stage hence accepted.	
	2006-07-01 to 2026-06-30			3. Changes in technology employed; (EB 66 Annex 24 §§ i) For the measurement of tree height, clinometer was proposed to be used. However, wooden pole with graduated height was held vertically along the side of the tree seedling and the tree height corresponding to the graduate pole was recorded. This change is due to the degraded nature of sites as a result the anticipated growth is not met. Also pole method is one of the best method as per forest inventories to measure the height of low standing trees. Hence accepted.	
	2006-07-01 to 2012-12-31			4. Changes in number of sample plots and their allocation to strata. (EB 66 Annex 24 §§ m) The calculation of number sample plots and their allocation to the project strata has been revised from original 168 sample plots to 152 sample plot. The change is primarily due to the small area of private lands planted relative to the total area of private lands under the project. The PP calculated the uncertainty as 27.43% and accordingly as per AR tool 14 version 4.1, the PP applied discount factor of 75% to the standard deviation for the value of biomass per ha and there on calculated the GHG removals for reduction in sample size	

#	Applicable from – to / as of	MP	Type of post registration change [1)]	Description	Status[2)] / Date
				Hence accepted. All the above changes are in line with EB66 Annex 24 guidelines and do not require prior approval.	

1) TDfrMP : Temporary deviation from registered monitoring plan
TDfMM : Temporary deviation from the monitoring methodology
CrPDD : Corrections to the registered PDD
PCfrMP : Permanent changes from registered Monitoring Plan
PCfMM : Permanent changes from Monitoring Methodology
CoPD : Changes to the project design of a registered project activity
CstAR : Changes specific to afforestation or reforestation

2) Approval (by EB) or Acceptance (by DOE)

No Post Registration changes were identified which requires prior approval of the board. All changes are A/R specific changes.

3. METHODOLOGY AND VERIFICATION SEQUENCE

3.1. Verification Steps

The verification consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the monitoring report
- A desk review of the Monitoring Report /MR/ submitted by the client and additional supporting documents with the use of customised verification protocol /CPM/ according to the Validation and Verification Standard /VVS/,
- Verification planning,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft verification reporting
- Resolution of corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the verification.

3.2. Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the verification can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

3.3. Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consisting of one team leader and 2 additional team members, was appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the Table 3-1 below.

Table 3-1: Involved Personnel

	Name	Company	Function [1)]	Qualification Status [2)]	Scheme competence [3)]	Technical competence [4)]	Verification competence [5)]	Host country Competence	On-site visit
☒ Mr. ☐ Ms.	G Ezhilarasu[4]	TUV India Pvt. Ltd.	TL	SA	☒	-	☒	☒	☐
☒ Mr. ☐ Ms.	Prabhat Kumar[5]	TUV India Pvt. Ltd.	TL	LA	☒		☒	☒	☒
☒ Mr. ☐ Ms.	Lokesh Chandra Dube[6]	TUV India Pvt. Ltd.	TM[A)]	LA	☒	14.1	☒	☒	☒
☒ Mr. ☐ Ms.	Pankaj Mohan[7]	TUV India Pvt. Ltd.	TM [A)]	SA	☒		☒	☒	☐
☐ Mr. ☒ Ms.	G. Kochaniewicz	TUV NORD Cert GmbH	TR	LA	☒	14.1	☒	☐	-
☒ Mr. ☐ Ms.	Stefan Winter	TUV NORD Cert GmbH	FA[B)]	SA	☒		☒	☐	-

1) TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval
2) GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert
3) GHG auditor status (at least Assessor)
4) As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, …)
5) In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE
B) No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical expert contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects. No trainees were appointed.

[4] From 30-06-2014
[5] Till 30-06-2014
[6] Till 06-12-2013
[7] Till 30-06-2014

Statements of competence for the above mentioned team members are enclosed in annex 2 of this report.

3.4. Publication of the Monitoring Report

In accordance with the CDM M&P (§ 62) the draft monitoring report, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the verification activity commenced. Comments received are taken into account in the course of the verification, if applicable.

3.5. Verification Planning

In order to ensure a complete, transparent and timely execution of the verification task, the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Risk analysis and detailed audit testing planning

For the identification of potential reporting risks and the necessary detailed audit testing procedures for residual risk areas table A-1 is used. The structure and content of this table is given in Table 3-2 below.

Table 3-2: Table A-1; Identification of verification risk areas

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing				
Identification of potential reporting risk	**Identification, assessment and testing of management controls**	**Areas of residual risks**	**Additional verification testing performed**	**Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)**
The following potential risks were identified and divided and structured according to the possible areas of occurrence.	*The potential risks of raw data generation have been identified in the course of the monitoring system implementation. The following measures were taken in order to minimize the corresponding risks.* *The following measures are*	*Despite the measures implemented in order to reduce the occurrence probability the following residual risks remain and have to be addressed in the course of every verification.*	*The additional verification testing performed is described. Testing may include:* - *Sample cross checking of manual transfers of data* - *Recalculation* - *Spreadsheet 'walk throughs' to check links and equations* - *Inspection of calibration and maintenance*	*Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.*

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing				
Identification of potential reporting risk	**Identification, assessment and testing of management controls**	**Areas of residual risks**	**Additional verification testing performed**	**Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)**
	implemented:		*records for key equipment* - *Check sampling analysis results* *Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.*	

The completed table A-1 is enclosed in Annex 1 (table A-1) to this report.

Project specific periodic verification checklist

In order to ensure transparency and consideration of all relevant assessment criteria, a project specific verification protocol has been developed. The protocol shows, in a transparent manner, criteria and requirements, means and results of the verification. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet for verification
- It ensures a transparent verification process where the verifying DOE documents how a particular requirement has been proved and the result of the verification.

The basic structure of this project specific verification protocol for the periodic verification is described in Table 3-3.

Table 3-3: Table A-2; Structure of the project specific periodic verification checklist

Table A-2: Periodic verification checklist				
Checklist Item	***Reference***	***Verification Team Comments***	***Draft Conclusion***	***Final Conclusion***
The checklist items in Table A-2 are linked to the various require-ments the monitoring of the project should meet. The checklist is organised in various sections as per the requirements of the topic and the individual project activity. It further includes guidance for the verification team.	*Gives reference to the information source on which the assessment is based on.*	*The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the verification team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.*	*Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft verifi-cation stage.*	*In case of a corrective action or a clarification the final assessment at the final verification stage is given.*

The periodic verification checklist (verification protocol) is the backbone of the complete verification starting from the desk review until final assessment. Detailed assessments and findings are discussed within this checklist and not necessarily repeated in the main text of this report.

The completed verification protocol is enclosed in Annex 1 (table A-2) to this report.

3.6. Desk review

During the desk review, all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the last revision of the PDD including the monitoring plan/PDD/,
- the last revision of the validation report/VAL/,
- documentation of previous verifications/VER/
- the monitoring report, including the claimed emission removals for the project/MR/,
- the emission removal calculation spreadsheet/XLS/.

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed.

3.7. On-site assessment

As most essential part of the verification exercise, it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore, the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission removals. The main tasks covered during the site visit include, but are not limited to:

- Physical verification of plantations and species was done on sample basis.
- Checking of Growth parameters of trees was performed on sample basis.
- Project boundary check was done using GPS instruments on sample basis.
- The monitoring data were checked completely.
- An assessment of the implementation and operation of the registered project activity as per the registered PDD or any approved revised PDD;
- A review of information flows for generating, aggregating and reporting the monitoring parameters;
- The data aggregation trails were checked via spot sample down to the level of the field recordings.
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD;
- A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology and corresponding tool(s), where applicable;
- A review of calculations and assumptions made in determining the GHG data and emission removals;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

Before and during the on-site visit the verification team performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Representatives of HP-MHWDP and The World Bank (Biocarbon fund) including the operational staff of the project were interviewed. The main topics of the interviews are summarised in Table 3-4.

Table 3-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
1. Projects & Operations Personnel/IM01/ 2. Bio-carbon fund's representative/IM02/ 3. Consultant/IM03/	- General aspects of the project - Forest management plan and implementation - Plant Species - Growth performance of plantations - Project boundary - Changes since validation - Calibration procedures - Quality management system

Interviewed Persons / Entities	Interview topics
	- Involved personnel and responsibilities - Training and practice of the operational personnel - Implementation of the monitoring plan - Monitoring data management - Data uncertainty and residual risks - GHG emission removal calculation - Procedural aspects of the verification - Maintenance and control of plantation sites - Environmental aspects

The list of interviewees is included in chapter 7.4.

3.8. Draft verification reporting

On the basis of the desk review, the on-site visit, follow-up interviews and further background investigation, the verification protocol is completed. This protocol together with a general project and procedural description of the verification and a detailed list of the verification findings form the draft verification report. This report is sent to the client for resolution of raised CARs, CLs and FARs.

3.9. Resolution of CARs, CLs and FARs

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

Corrective Action Requests (CARs) are issued, if:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission removals which will impair the estimate of emission removals;
- Issues identified in a FAR during validation or previous verifications requiring actions by the project participants to be verified during verification have not been resolved.

The verification team uses the term Clarification Request (CL), which is be issued if:

- information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Forward Action Requests (FAR) indicate essential risks for further periodic verifications. Forward Action Requests are issued, if:

- the monitoring and reporting require attention and / or adjustment for the next verification period.

For a detailed list of all CARs, CLs and FARs raised in the course of the verification pl. refer to chapter 4.

3.10. Final reporting

Upon successful closure of all raised CARs and CLs, the final verification report including a positive verification opinion can be issued. In case not all essential issues could finally be resolved, a final report including a negative verification opinion is issued.

The final report summarizes the final assessments w.r.t. all applicable criteria.

3.11. Technical review

Before submission of the final verification report, a technical review of the whole verification procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process, the verification opinion and the topic specific assessments as prepared by the verification team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.12. Final approval

After successful technical review an overall (esp. procedural) assessment of the complete verification will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the request for issuance can be started.

4. VERIFICATION FINDINGS

In the following paragraphs the findings from the desk review of the monitoring report/MR/, the calculation spreadsheet/XLS/, PDD/PDD/, the Validation Report/VAL/ and other supporting documents, as well as from the on-site assessment and the interviews are summarised.

The summary of CAR, CL and FAR issued are shown in Table 4-1:

Table 4-1: Summary of CAR, CL and FAR

Verification topic	No. of CAR	No. of CL	No. of FAR
A – Description of project activity	5	2	0
B – Implementation of project activity	2	3	0
C – Description of monitoring system	2	3	0
D – Data and parameters	4	4	0
E - Calculation of Emission Removals	0	2	0
SUM	**13**	**14**	**0**

The following tables include all raised CARs, CLs and FARs and the assessments of the same by the verification team. For an in depth evaluation of all verification items it should be referred to the verification protocols (see Annex).

Finding	**A1**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Relevant dates for the project activity are missing in section A.1 of the MR. 2. Total emission removals achieved in this monitoring period have not been indicated in the section A.1 of the MR.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections*	1. The section A.1 of the revised MR presents the relevant dates of project activity. 2. The section A.1 of the revised MR presents the net anthropogenic GHG removals by sinks of the project.		

Finding	A1		
as well as the new version No.	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The progress of project implementation i.e start date as 01 July 2006, and period of planting activities are mentioned in the section A.1 of the revised MR version 2. The excel sheet containing details of the year wise plantation is checked for the purpose along with the date of signing the agreement and records of the first dispatch of seedling from the nursery. Hence CAR point 1 is closed 2. The net anthropogenic GHG removals by sinks from the project at the end of first monitoring period (01-07-2006 to 31-12-2012) is incorporated in the section A.1 of the revised MR version 2 , Hence CAR point 2 is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	A2		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Name of the host party is not provided in the section A.3 of the webhosted MR. 2. Annex A.2 presenting physical/geographical location of land parcels as referred in section A.2 of the webhosted MR is not present.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The name of the host party has been included in the section A.3 of the revised MR. 2. The physical/geographic details of land parcels planted during the monitoring period are presented in Annex II to the MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The name of the host party, incorporated in the revised MR Version 2., However it not exactly the as shown in UNFCCC project Webpage 2. The details physical/geographical location of land parcels are added in the Annex II to the revised MR, CL point 2 is closed.		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Host party name revised as per the project information on UNFCCC website. 2. CAR Point 2 already closed.		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:1

Finding	A2
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The Host party name India is mentioned in the revised MR front Page and section A.3 is in line with the available information in the UNFCCC project page. Hence CL point 1 is closed. 2. CAR Point 2 is closed in DOE assessment #1.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	A3		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Name of the authorised participant from the host party in section A.3 of the MR is not matching with the UNFCCC website and registered PDD/PDD/. 2. Names of the Authorised participants from other parties (Annex I parties) and names of the other parties involved are not complete in the MR/MR1/.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Name of authorized host party participant in section A.3 of MR has been revised. 2. Names of the Authorised participants from other parties (Annex I parties) and names of the other parties involved in the project have been updated in the revised MR.		
	☒ Changes in MR	Section(s):	New version No.2
	☐ Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Name of the authorized host party participant are incorporated in the revised MR in the section A.3, but host party name is not in line with UNFCCC project page refer above CL also. 2. The name of the Authorised participants from other parties (Annex I parties) and names of the other parties involved in the project are added in the revised MR, However the Project participants list is not complete and the names are not in line with the ones given on UNFCCC project website.		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Host party name revised as per the project information on UNFCCC website. 2. Participant list has been revised as per the project participant information on the UNFCCC website		
	☒ Changes in MR	Section(s):	New version No.3
	☐ Changes in XLS	Worksheet(s):	New version No.
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.)*	1. Name of the authorized host party participant is mentioned as M/s HP Mid-Himalayan Watershed Development Project (MHWDP) in the section A.3 of the revised MR and the Host party name is mentioned as India and is line with the project participant mentioned in the UNFCCC web site (reference no:4174), CAR point is closed.		

Finding	**A3**
shall be added.	2. The name of the authorised participants from other parties (Annex I parties) and names of the other parties involved in the project are added in the revised MR and is line with the list of project participants mentioned in the UNFCCC web site (reference no: 4174), CAR point is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	**A4**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Reference to the applicable version(s) of relevant methodological tools and relevant EB decisions are found missing in section A.4 of the MR. This is not in line with the Guidelines for completing the monitoring report form version 4.0 (EB75, Annex 7).		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The applicable versions of relevant methodological tools and references to EB guidelines/decisions have been included in the section A.4 of the MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The A/R methodological tools and guidelines are incorporated in the revised MR of the section A.4, However The tools that where applicable at the validation is not mentioned in this section CAR is open		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Tools applicable at the validation are also listed in the section A.4 of the MR		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:1

Finding	A4
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The following A/R methodological tools and guidelines are incorporated and referenced in the revised MR of the section A.4, • Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01) • Calculation of the number of sample plots for measurements within A/R CDM project Activities (version 02) • Tool for testing significance of GHG emissions in A/R CDM project activities (version 01) • Estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of a CDM A/R project activity tool (version 03) • Tool for estimation of GHG emissions related to displacement of grazing activities in an A/R CDM project activity (version 02) • Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities (version 01) • Procedure to define the eligibility of land for afforestation and reforestation project activities (version01) • Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in A/R CDM project activities(version 01) • Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities (version 04.1); • Tool for estimation of changes in soil organic carbon stocks due to the implementation of A/R CDM Project Activities (version 01.1.0) • Demonstration of Appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities (version 01.0.1) • Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents (Version 02.0) (EB 66, Annex 24) • Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities (Version 01.1) (EB68, Annex 31) So CAR is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	**A5**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. As per the Guidelines for completing the monitoring report form version 4.0 (Annex 7/EB75), type and start date of the crediting period need to be mentioned in the section A.5 of the monitoring report[/MR1/]. This information is missing in the published MR.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The reference to renewable crediting period and start date of crediting period have been included in the section A.5 of the MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The Crediting period start date is mentioned as 01/07/2006, which is in line with project page of the UNFCCC website. Also the crediting period is renewable twice which as per the registered PDD. The same is included in the section A.5 of revised MR, hence CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**A6**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. The figures “total project area” for restoration forestry and farm forestry are different in these sections A.1 and B.1, not in line with the PDD. Please clarify.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Figures of total project area mentioned in sections A.1 and B.1 (Table B.1) are made consistent.		
	☒ Changes in MR	Section(s):	New version No.:4
	☐ Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The values in sections A.1 and the table B.1 are made consistent. Also the values mentioned in the PDD are also in line with the revised MR hence CAR A6 is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**A7**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. The MR form version 03.1 is outdated, please clarify.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The latest MR form Version 03.2 has been adopted		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The Revised MR uses version 03.2 is used however Version 4 is the latest form applicable as observed from UNFCCC website, hence CL is open.		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The latest MR form Version 04.0 has been adopted		
	☒ Changes in MR	Section(s):	New version No.:4
	☐ Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The Revised MR uses version 4.0 (CDM-MR-FORM) the latest form applicable as observed from UNFCCC website, hence CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**B1**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Names of the species planted as a part of the project activity have not been provided in section B.1 of the MR[/MR1/]. Further, density of fast growing and slow growing species planted on site need to be compared with density stipulated in the Box A.5.2 of the registered PDD. 2. As per the section B.1 of the MR, 792.88 ha area was not planted till the end of 2012. PP is requested to – a. Provide stratum wise and district wise details of the not planted area in the MR		

Finding	B1
	b. Clarify further plan/schedule of planting this area.
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The table B.3 showing the list of species planted in the project has been included in the section B.1 of the MR. The proportion of fast and slow growing species planted in the project approximates to that proposed in the Box A.5.2 of the registered PDD. 2. The details of 792.88 ha that was not planted are presented in the Section B.1 of the MR along with the information by strata and district in the Annex III to the revised MR. a. The details of stratum-wise and district-wise area not planted during the first monitoring period has been provided in the Annex III to the revised MR. b. The plan/schedule of planting of 792.88 ha has been included in Table B.2 of the Section B.1 of the MR. ☒ Changes in MR — Section(s): — New version No.:2 ☐ Changes in XLS — Worksheet(s): — New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The list of 45 species planted plus some unidentified species was included in the section B.1 MR version 3. The list of species corresponds to the seedlings dispatch data from the nurseries 2. Details for stratum wise (9 stratum) & schedule of planting during the first monitoring period has been provided in the MR however the detailed planting schedule is given in Annex III to the MR. The details of the non-plantation area of 792.88 ha is given along with the schedule. Hence accepted and however comparison of density still not provided in MR and / or corrective actions, so Cl point is open.
Corrective Action # 2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The CL point is closed already 2. For the CL B1 paragraph 1 above, in the previous round response (corrective action # 1), it has been clarified that the proportion of fast and slow growing species planted in the project is approximately the same proportion as noted in the Box A.5.2 of the registered PDD. This information is also referred in the revised MR. ☒ Changes in MR — Section(s): — New version No.:3 ☐ Changes in XLS — Worksheet(s): — New version No.:1
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. CL Point is closed in DOE assessment #1. 2. The proportion of fast and slow growing species planted is the same as defined in the PDD. The information was provided in section B1 of the revised MR. Verification team checked the characteristic of the species and confirmed the same, Hence accepted, and CL point 2 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	**B2**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. PP is requested to provide details of any events occurred during the monitoring period that might have impact on emission removals. Significant incidents include fire, flood, mortality due to unfavourable weather conditions (e.g. chill) or losses due to diseases and pests. Further, these may also include conscious land clearing for any reason.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Information on events of fire that occurred during the monitoring period has been presented in Table C.1of the section C of the MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Information about the special events such as fire has been provided in the table C.1 of the revised MR, and it was observed in 8 parcels of land there were incidents of fire accidents. During the site visit the plant growth from some of the areas affected by fire was observed and it was not that much significant as it was in the early stages apart from that those affected areas were replanted during the subsequent planting. Also as per methodology the project emissions related to natural fire events are ignored in the calculation of actual net GHG removals by sinks. Hence CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**B3**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Following FAR was raised by Validating DOE, which is required to be responded by PP as a part of verification: • Provide evidence on control over private land included in the project.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. In section B1 of the revised MR, it has been clarified that the public entity implementing the project, HP Mid Himalayan Watershed Development Project (MHWDP) has control over the private land included in the project as it has signed sub-project agreements with the private land owners. A copy of the sub-project agreement has been provided to the DOE team at the verification site visit.		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:1

Finding	B3		
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Details of all private parties agreement along with contracts need to be provided , so CAR is open		
Corrective action # 2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Agreements with owners of private land included in the project have been signed. This information has also been referred in the section B.1 of the revised MR. As each agreement is of several pages. A copy of signed private land owner agreement has been submitted with this documentation.		
	☒ Changes in MR	Section(s):	New version No.:4
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The details of private land owners agreement has been added in the section B.1 of the revised MR. The agreement in short gives the carbon rights to the PP and with a clause of revenue sharing for the land owners (clause 3 and clause 14). Altogether there were 420 land parcels out of which 93 belongs to private land owners, 287 belongs to forest land and 40 belongs to community land. During the onsite visit VT checked sample agreements and as well had interviews with land owners. During the interview with the land owners and members of VFDS (Village Forest Development Society), VT confirmed that they have signed the agreement and authorised the PP to hold the carbon rights. Also they were aware of modalities of the carbon revenue sharing. Apart from that the PP submitted copies of the user agreement to conclude that the land user agreements are in place and PP holds the carbon rights for the project activity, and hence CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	B4		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. In accordance with paragraph 109 of the Project Standard version 5.0, when submitting the first monitoring report for verification, the project boundary shall be fixed in such a way that it geographically delineates exclusively the registered CDM A/R project activity under the control of the project participants. Project participant is required to demonstrate the actual project boundary confirming with the one outlined in the PDD with all the necessary supporting documents.		

Finding	B4		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The shape files of the project are submitted as part of the supporting documentation in order to demonstrate that the actual project boundary confirms with the information on project boundary submitted with the registered PDD is submitted. The actual project area confirms to the project area of the registered, the details of which are presented in Table B.2 in the section B. and shared with the DOE team during the verification site visit.		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The information through shape files provided by PP shows the A/R CDM area is for the actual area planted. However the requested information required is the area under the control of PP , so CAR is open ,		
Corrective action # 2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. It is clarified that the shape files submitted in the previous round (under corrective action # 1) refer to the area under the control of PP.		
	☒ Changes in MR	Section(s):	New version No.:4
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The shape files are submitted. During the site visit the PP has presented the details of the actual area under the control of the PP for this project (both planted and not planted), and also demonstrated the consistency of the same with the boundary represented in the registered PDD. Further each parcel of land could be allocated to an owner. The owners signed agreements authoring PP to include the land parcels in to the project activities were checked. This is found to be consistent with para 109 of PS, as the project boundary presented in this verification is fixed for the entire crediting period of the project activity. Hence, the CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	B5		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. PP to clarify if there is any change from *ex-ante* stratification in the project activity, in light of section 2.1 of the applied methodology on requirement of updating of strata and also as per the section E.2 of the registered PDD.		

Finding	B5		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The changes to *ex ante* strata of the project have been updated as part of the ex post stratification, which is presented in section D.3 of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Change in the number PSPs from 168 to 152 is found acceptable in light of the provisions of EB66/Annex 24. According to the paragraph 4 (m) of the Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents, changes in number of sample plots and their allocation to strata does not require prior approval by the CDM EB. The changes are due to the non- planting of the trees in the private land strata across all three altitudes. As per A/R methodological tool "Calculation of the number of sample plots for measurements within A/R CDM project activities" version 2.1.0, the number of PSPs obtained as 152, Hence CL is closed. However the UNFCCC has raised a clarification about the appropriateness of the sample plot calculations and in the CER sheets the equations to calculate the uncertainty is not traceable. Hence CL is opened and the PP is requested to clarify the same.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Table D.1 of the MR provides the details of sample plots estimated by strata in the registered PDD under the ex ante stratification as well as the sample plots by strata laid out during project implementation and reflected under the ex post stratification in the first monitoring period. The number of sample plots laid out in the restoration forestry; and the community forestry strata closely corresponded to the number of sample plots estimated for these strata in the registered PDD. However, due to delay in implementing planting activities by the land owners in the private/farm forestry strata, it was not feasible to lay out the sample plots as per the number of plots estimated for the private land strata in the registered PDD, which is expected to be done subsequent to the completion of planting activities on private land strata. Therefore, the sample size implemented in the project corresponds to the sample size estimated in the registered PDD Increase in the number of sample plots to address the variability in the biomass estimate was considered during the sample plot measurements and efforts made to increase the sample size in excess of 152 sample plots that were already laid out were not successful 2. The work sheet "Biomass_AR-Tool 14 V04.1"of the ER calculation spreadsheet is revised to include formulas in the columns in the columns L, M, N, and O and the revised spreadsheet is submitted.		
	☒ Changes in MR	Section(s): D.3.1	New version No.:8
	☒ Changes in XLS	Worksheet(s): Biomass_AR-Tool 14 V04.1	New version No.:
DOE Assessment #1	1. The table D.1 of the MR is crossed by the verification team and found		

Finding	**B5**
The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	that even though the planted area is less in first 6 strata of the table, the sample plots taken is either equal to the sample plots mentioned in the registered PDD or more than proportion for the land area planted. For the rest of the strata (predominantly in private land) the proportion of sample plots taken is more than the proportionate area of planted area as per the registered PDD. Due to the private nature of land and reasons beyond the control of the PP, the PP could not increase the sample plots. The PP will increase the number of sample plots be as per the registered PDD if the entire area is planted. However the estimated sample plots of 152 is 90% of the sample plots as per the registered PDD when compared to only 80% of the planted area. But the PP estimated the uncertainty as 27.43% and applied a discount factor of 75% to the tree biomass to calculate the emission removals as per the AR tool 14. Hence the number of sample plots laid down for this monitoring is appropriate and CL point1 is closed. 2. The work sheet "Biomass_AR-Tool 14 V04.1" of ER calculation spread sheet is revised to include the formulae transparently in columns L, M, N, and O to determine the uncertainty factor. The revised work sheet is checked and found true. Hence accepted and CL point 2 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	**C1**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Evidence of the calibration of monitoring equipment shall be provided.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The calibration record to be presented in section D.3 of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Still the Date of calibration is not evident in the section D.3 of revised MR., CL is open.		

Finding	C1		
Corrective Action # 2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The Table D.3 of the section D.3.5 (calibration of the equipment) in the Monitoring Report has been revised to include the date of calibration of the equipment used in the measurement of sample plots.		
	☒ Changes in MR	Section(s):	New version No.:4
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The required details of calibration has been added in the Table D.2 of the revised MR , unlike in other PA, for A/R project activities majority of the instruments are to measure the distance/length and to locate the geo co-ordinates. The calibration records are checked and found that the date of calibration is 15/04/2012 for all the equipment (Metal/cloth tape for measuring distances, Global Positioning System (GPS) for locating sample plots, Caliper for measuring tree diameter and Pole for measuring tree height) and the same mentioned in the revised MR. Thus from the calibration records, it is confirmed that time gap between the date of calibration and date of measurements for this monitoring period is less than one year, and hence CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	C2		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	Following tools have been used in the monitoring report; however, these are not referred in the applied version of the methodology and in the registered PDD: **1.** Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities **2.** Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities PP shall clarify the justification behind use of these tools.		

Finding	C2		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	Per the paragraph 4(t) of the *Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in the project design documents* (EB66, Annex 24), the relevant approved tool can be used at verification when the applicability conditions of the methodology applied are consistent with the applicability conditions of the tool. In this reference, the below tools used in the MR complies with the EB guidelines. 1. Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities 2. Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	The justification provided by the PP has been accepted, hence CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	C3		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. A 'metering' diagram has not been included showing sample design and measurement points in accordance with §196 of the PS (version 5.0).		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Detailed explanation of the sampling design and measurement along with the diagrammatic illustration on the lay out of the sample plots has been presented in the section D.3 of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. In A/R project activities a "Metering" diagram is refers the diagrammatic representative of the area (length, breadth and diagonal and centre points) of a sample plot. The same is observed during site visit and added in revised MR, so CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	C4		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1 .As part of Quality Assurance and Quality Control procedures (E.1.3 of PDD), appropriate trainings should be provided to the personnel involved in the field measurement works. As per the procedure, training will be done to the new staff recruited. PP shall provide evidence of the same.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. Details of training activities conducted in support of project implementation and monitoring are included in Table C.2 of the section C of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Training details are added in the section C.2 of the revised MR and same is in line with evidence submitted. Also during the site visit some of the project staff were interviewed and noted that they indeed got training specific to the A/R CDM specific data collection, so CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	C5		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. No emergency procedures for the monitoring system were found mentioned in the section C of the published MR. As §196 of PS version 5.0, relevant emergency procedures for the monitoring system need to be included in the MR.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The details of emergency procedures implemented in the project have been presented in section C of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Field emergency procedures have been added in the revised MR, however emergency for the Instruments back up for monitoring are still missing, and CAR is open.		

Finding	C5			
Corrective Action # 2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The detailed emergency procedures are included in the monitoring plan. These are not repeated in the MR as no emergencies have occurred during the monitoring period to trigger their implementation.			
	☒	Changes in MR	Section(s):	New version No.:3
	☐	Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The following potential emergency plans were identified and added in the revised MR, • Procedures to assess fire and its management • Procedures to assess the impact of pest and diseases • Procedures to assess the impact of weather related natural hazards. • Procedures to assess the impact of land slides. Also back instruments are commercial ones which are mostly used for measuring and available at low prices, accordingly PP does not for see any emergencies. Hence CAR is closed.			
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed			

Finding	D1		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. As indicated in section D.1 of the MR, $BEF_{1,j}$ has been applied for calculation. As per E.2 of the MR, $BEF_{2,j}$ has been applied in calculation. PP to clarify in light of the fact that AR-ACM0001 version 3.0 recommends to use $BEF_{2,j}$ in the concerned equation. Further, section E.4 of registered PDD refers to the use of species specific or group of species specific $BEF_{2,j}$ values to be sourced from the validated spreadsheet, whereas MR has referred one single global value.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The project has used $BEF_{2,I}$ in the ER calculations. The typo in section D.1 on the $BEF_{1,i}$ has been accordingly corrected to BEF2,i. As noted in the section E.4 of the registered PDD, MR has used species specific or group of species specific $BEF_{2,j}$ values, which are presented in the worksheet on standard values of the ER calculation spreadsheet (Annex I to the MR).		

Finding	D1		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The Annex 1 to the MR, in column E of the standard values sheet, the value of BEF is given and the value of 1.74 is applied for "Rest of species" category. The source is checked and required corrections are observed in the revised ER Sheets so CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	D2		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. The value of Root -shoot ratio is not in compliance with registered PDD. The PDD refers to the use of species specific or group of species specific R/S values from the validated spreadsheet, instead, MR has referred to one single global value.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. As noted in the section E.4 of the registered PDD, MR uses species specific or group of species specific Root-shoot ratio values, which are presented in the worksheet on standard values of the ER calculation spreadsheet (Annex I to the MR).		
	☒ Changes in MR	Section(s):	New version No.:3
	☒ Changes in XLS	Worksheet(s):	New version No.:2
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Excel and MR is not matching, non-coherence in the MR, excel sheet and response, CL is open.		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The information on root shoot ratio in Table D.1 of the MR and the excel spreadsheet (Annex I to the MR) has been made consistent. The root-shoot ratio information of the species published in journals and reports has been adopted; and for species that do not have published information, the root-shoot value for tropical and sub-tropical forest species, referenced in the IPCC (2003) GPG LULUCF, Table 3A.1.8 has been adopted. The sources of root-shoot ratio values of species published in journals and reports are referenced in the standard values worksheet of the excel spreadsheet (Annex I to MR), and referred in the root-shoot ratio variable in Table D.1 of the revised MR.		

Finding	D2
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The PP adapted available species wise published information and reports in the public domain and for non-availability of information for some species adapted IPCC (2003) GPG LULUCF, Table 3A.1.8 default values for the calculation of the Rj (root shoot ratio) the data taken in the emission reduction sheets corresponds to the to the source table. Hence CL is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	D3		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Basic wood density is used for calculation of the volume of the stand. It is not clear which values have been used for calculation.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. MR uses species specific or group of species specific basic wood density values, which are presented in the worksheet on standard values of the ER calculation spreadsheet (Annex I to the MR).		
	☒ Changes in MR	Section(s):	New version No.:3
	☒ Changes in XLS	Worksheet(s):	New version No.:2
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Details of all referred journal's and books referred to be provided for wood density, CL is open		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The information on the sources of wood density values of species published in journals and reports has been referenced in the standard values worksheet of the excel spreadsheet (Annex I to MR), and is referred under the wood density variable in Table D.1 of the revised MR		
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The wood density values and its references are clearly given in the Emission reduction sheets file, so CL is closed.		

Finding	D3
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	D4		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Following fixed parameters are missing from the section D.1 of the published MR: 1. Default annual increase in carbon stock in SOC (ΔC) 2. Time until a new equilibrium in carbon stock in SOC is reached ($t_{equilibrium}$)		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. As fixed parameters of the A/R methodological tool - Tool for estimation of changes in soil organic carbon stocks due to the implementation of A/R CDM project activities, version 01.1.0 (EB 60 Annex 12) applicable to the project are noted below. 1. The default annual increase in SOC (ΔC) = 0.51 tonnes C/ha 2. Time until a new equilibrium in carbon stock in SOC is reached ($t_{equilibrium}$) = 20 years		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. These values are applied but parameter are not included in the section D.1 of revised MR,CAR is open		
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The parameters SOC (ΔC) and ($t_{equilibrium}$) = 20 years used in the calculation of the change in SOC are included in the Section D.1 of the revised MR.		
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Corrections verified in the revised MR, so CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**D5**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Following monitoring parameters are found missing in section D.2 of the monitoring report: • Species planted • Survival of seedlings		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The monitoring parameters of the below variables are included in the section D.2 of the MR. • Species planted • Survival of seedlings		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The missing monitoring parameters i.e. Species planted & Survival of seedlings have been incorporated in section D.2 of the revised MR, CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**D6**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Monitoring equipment for tree height has not been specified in the section D.2 of the MR/MR1/.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The details of monitoring equipment used for measurement of tree height have been included in the section D2 of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:3
	☐ Changes in XLS	Worksheet(s):	New version No.:2
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Reference of pole method has given, what is Pole method need to be described and also reference of pole method in the registered PDD is not evident, CAR is open		

Finding	D6
Corrective Action #2 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The pole method refers to the direct measurement of tree height with the use of graduated wooden or metal or fiberglass pole. The tree heights on sample plots were measured using the wooden pole. As part of calibration, pole height was checked to ensure that there is no error in the height gradations marked on the pole for the measurement. The reference to pole method has been made under the tree height variable of Table D.1 in the revised MR. The delayed schedule of planting, degraded soils, and slow growth of tree species resulted in seedlings with tree height smaller than anticipated. As a consequence, pole method was found to be appropriate, easy to use, and cost effective for measuring tree height on sample plots. Although the use of pole method for measuring trees was anticipated in the project, explicit reference to it was not made in the PDD. Therefore, as part of project monitoring, pole method is relevant for measurement of tree heights on the sample plots.
DOE Assessment #2 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The pole method for measuring tree height is direct method and trees in the project can be measured by using this method. http://www.nativetreesociety.org/measure/notes/pole_method.htm the above reference is also referred and as it is one of the best forest practices for measuring tree height. The same is accepted and CAR is Closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	D7		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. As per the table D.3.2 of the webhosted MR/MR1/, number of sample plots has been reduced from 168 to 148 as land area of 792.93 ha has been reported as 'Unplanted'. However, page 8 and page 15 of published MR (version 1.0) refer to the number of sample plots as 152. PP shall clarify the actual numbers of sample plots monitored. Further, justification for reduction in number of sample plots is missing in the monitoring report. From the information available in the MR, it could not be ascertained that the recalculated sampling design has met the required confidence/precision levels.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The revised MR clarifies the details of sample plots used for the first verification in the section D.3 of the revised MR. EB75, Annex 35 guidelines have been applied to the ER calculations show the compliance with the precision/confidence requirements in the project.		
	☒ Changes in MR	Section(s):	New version No.:2

Finding	**D7**		
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. In the revised MR, the number of sample plots mentioned is 152 and is consistent in table B.4 and in section D.3 .1. The reduction in samples is due to the non - planting of trees in majority of the Private area. The uncertainty factor of 27.43% was calculated. Accordingly to AR tool 14 version 4.1, PP applied discount factor of 75% to the standard deviation for the value of biomass per ha and respectively on calculated GHG removals. The applied procedure was found correct, hence CAR is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**D8**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Sampling design is not clearly described in the monitoring report. What was the systematic approach of this sampling? How it was ensured that each stratum gets the calculated amount of PSPs? Please describe what technique was used to define the coordinate within the selected forest areas.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The description of the sampling design has been revised in section D.3 of the revised MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The descriptions related to sampling design have been incorporated in the section D.3 of the revised MR, The PP applied stratified random sampling as described in the registered PDD and CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**E1**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Spreadsheet containing calculation of net removals by sinks has not been provided by PP.		

Finding	**E1**		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The net anthropogenic GHG removals by sinks are presented in the ER calculations spreadsheet, which is enclosed as an Annex I to the MR.		
	☐ Changes in MR	Section(s):	New version No.:2
	☒ Changes in XLS	Worksheet(s):	New version No.:2
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. The Emission reduction as annex 1 is submitted. The calculation sheet "actual net GHG removals" gives the vintage wise removal of GHG from 2006 to 2012, so CL is closed		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	**E2**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *Describe the finding in unambiguous style; address the context (e.g. section)*	1. Footnote 5 pertaining to grass production under the A/R CDM project activity is double the pre-project grass production under the section E.3 (Calculation of leakage) of the MR is missing.		
Corrective Action #1 *This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.*	1. The footnote 4 on the reference to grass production in the project area has been referenced in the section E.3 of the MR.		
	☒ Changes in MR	Section(s):	New version No.:2
	☐ Changes in XLS	Worksheet(s):	New version No.:1
DOE Assessment #1 *The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.*	1. Reference in the section E.3 of the MR has been verified and the reference is given as foot note 4 which is correct, so CL is closed.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CRs are closed out. For details of the assessments pl. refer to the discussion of the verification findings in chapter 4 and the verification protocol (Annex 1).

5.1. Involved Parties and Project Participants

Table 5-1: Project Parties and project participants

Characteristic	Party	Project Participant
Non-Annex 1	India	M/s HP Mid-Himalayan Watershed Development Project (MHWDP)
Annex 1	Spain	International Bank for Reconstruction and Development (IBRD) as a trustee for BioCarbon Fund (BioCF) ; Kingdom of Spain - Ministry of Agriculture, Food and Environment and Ministry of Economy and Competitiveness; Zeroemissions Carbon Trust, S.A.
	Switzerland	Syngenta Foundation for Sustainable Agriculture
	Ireland	Government of Ireland - Department of the Environment, Community and Local Government

5.2. Implementation of the project

During the verification site visit to the project sites on sample basis were carried out. On the basis of this site visit and the reviewed project documentation, it can be confirmed that w.r.t. the PDD/PDD/, the project implementation, as well as the monitoring, recording and monitoring equipment's, the PA has been implemented and operated as described in the registered PDD.

The implementation of the A/R CDM PA is by and large found to be in line with the details in the registered PDD/PDD/ except for the change in some of the species without changing the proportion of the fast and slow growing trees. The project involves plantation of following tree species: *Acacia catechu, Acacia nilotica, Albizia lebbeck, Albizzia procera, Albizzia stipulate, Alnus nitida, Azadirachta indica,*

Bambusa stricta, Bamboo, Bauhinia variegate, Bauhinia purpurea, Butea monosperma, Bombax ceiba, Cassia fistula, Cassia seamia, Cedrus deodara, Celtis australis, Dalbergia issoo, Dendrocalamus strictusarandu, Emblica offcinalis, Engelhardtia colebrookiana, Ficus/Ficus roxburghii, Flacourtia indica, Grevillea robusta, Grewia optiva, Lannea grandis, Leucaena leucocephala, Mallotus philippinensis, Melia azadirachta, Myrica sculenta, Olea glandulifera, Pinus roxburghii, Pinus wallichiana, Poplus ciliate, Prunus padus, Punica Granatum, Pyrus pashia, Quercus leucotrichophora, Robinia pseudoacacia, Salix alba, Syzygium cuminii, Tectona Grandis, Terminalia arjuna, Terminalia tomentosa, Toona ciliatain. Those species have been planted on discrete parcels spread over 4003.07 ha (implemented only 3210.19 ha) in the states of Himachal Pradesh in India (Host Country). The basic characteristics of the implemented technology are found to be described in section A.4 of the MR/MR2/. The verification team has checked the given description, and confirms it is in line with the site visit observations

Most of the tree species declared in the registered PDD has been planted and due to degraded site conditions and other location specific factors, survival and growth rates of some species were not as anticipated resulting in their replacement with species with similar growth characteristics that have better survival. In addition, small changes to the stand models were needed to be made as per the field level implementation requirements, site conditions of land parcels, and to adjust the planting schedule to the supply of seedlings from nurseries. These small changes in species composition do not have impact on the baseline and the additionality of the project.

The PA has been implemented in line with the SOP, including risk mitigation measures to ensure a successful implementation of the project. The plantation comprises of seedling propagation of all species, which was confirmed from visits to Plantation division and the associated nurseries on-site and finally to the plantation sites/PHOTO/. The plantation and its management are found to be in accordance with good forestry practice. Nursery techniques were in line with good practices. Planting of the species, spread over 4003.07 ha (implemented only 3210.19 ha),followed grids starting from 3m x 3m with pits of 45x45x45 cm. The different grids are detailed in table B-4 of the MR/MR2/. The plantation is rain fed with no mechanism for irrigation. However local supervision is found to be in place to ensure growth of the stands. Weeding is found to be mainly done by hand picking and ploughing. Weeding and other management practices were found documented in the logbooks/MSR/. The verification team is convinced that according to the site conditions the best forest practices have been adopted.

Year-wise planting: The plantation started in 2006-07-01 (which is the start date for the project). Plantation is found to be done year wise (2006, 2007, 2008, 2009, 2010, 2011 and 2012), as confirmed from the field records of plantations. This is found to be consistent with the information in the registered PDD/PDD/. No variance is observed.

Species composition: As mentioned above, the species planted is observed to be only as declared in the PDD/MR/, which is consistent with the registered PDD/PDD/. Hence the removal by any tree species other than declared species is not accounted in the t-CER calculations. No change in propagation system (seeding) is observed.

Stocking density: The planation was originally done with a spacing of 3mx3m. However during the site visit variations were observed in spacing. It is observed that irrespective of the density all the trees falling inside a sample plot have been measured and the measurement recorded appropriately. This is detailed and discussed in Annex-3 of this report. With reference to the Guidelines on Accounting of Specified Types of Changes in A/R CDM Project Activities from the Description in Registered Project Design Documents version 02.0 Annex 24 EB 66, this change does not require prior approval from the EB. Regeneration through coppicing is the practice after harvesting, which results in no change in the stand density. Survival rate is checked, and replantation is done in the initial years if required. No variance is observed from the registered PDD/PDD/.

Timing and choice of silvicultural activities depends on many factors and is found to vary year to year. This is considered as a minor change in accordance with EB 63 Annex 27 and is accepted. Villagers mainly women collect non-timber forest products including fuel wood and fodder from the project area. The collection is recorded by the concerned VFDC.

Confirmation of project boundary for A/R project activities Separate assessment on implementation of the project activity to check project boundary was conducted. Verification team has checked the project boundary from the satellite data and GPS maps plotted at the time of verification and compared it against the information from validation. The verification team observed that no change has occurred in project area as compared to the registered PDD/PDD/. The PP has submitted GPS survey report/GPS/ confirming the same. The land owners and associated staff were interviewed to ascertain if any beneficiary (farmer) had left the project. No such instance has been detected. The verification team has further checked the GPS coordinates of the corners of the parcels to check the location. Negligible variations (appx 5m) has been observed on ground as compared to the information as per the registered PDD/PDD/. The verification team is confident that this variation is on account of the accuracy of GPS machine etc. Since in all visited sites, the boundary of the parcels in the PA could be readily delineated from the surrounding land, the verification team confirms that the project boundary has been fixed for the rest of the crediting period. The GPS coordinates submitted along with this verification report confirms the project boundary of the A/R project.

W.r.t Annex 24 EB 66 the verification team confirms the land area for which the control over A/R CDM project activity has been established by the project proponents since validation has changed. This is found acceptable, and is detailed in Annex 3 to this report.

5.3. Project history

One FAR was identified during the validation as evidenced from the validation report/VAL/. This FAR was related to checking evidence on control over private land included in the project. The same was checked and resolved successfully as CAR B3.

Since this is the 1st periodic verification no FARs exist during any earlier instances. Hence the verification team concludes that there are no unresolved issues

5.4. Post registration changes

No post registration changes that require prior approval from the CDM EB applicable for this monitoring period have been observed during the monitoring period. A detailed description of all A/R specific changes can be found in Annex 3 of this report.

5.5. Compliance with the monitoring plan

The monitoring system and all applied procedures are completely in compliance to the registered monitoring plan. Project activity has been implemented as per the description provided in the registered PDD/PDD/. Monitoring is found done in line with the requirements of the monitoring plan contained in the validated registered PDD. No material discrepancies were identified between the PA on site observations and the project description/PDD/. There are no remaining issues from previous validation and no methodology deviations are observed.

Any other changes have been reflected in Annex 3 (PRC) of this report.

Data measurement collection and recording

The Measurements of the data parameters used for calculation of net anthropogenic GHG removals by sinks in the project activity are undertaken by the PP as per the approved monitoring plan given in the validated registered PDD/PDD/. The verification team checked data measurement procedures including measuring arrangements, collection, reporting/recording and archiving of data at the time of site visit and found the practices in compliance with approved monitoring plan as contained in validated PDD/PDD/. The monitoring team comprises of qualified personnel having forestry related education (at least bachelor degree/diploma graduate) and/or training in the field of forestry.

Mostly personnel are trained with state forest department as forest guards, forest rangers. The team recording measurements are also observed to be well trained/TRG/. Only those personnel clearing training examinations are deputed for supervision of data collection. Examination records/TRG/ were checked by the verification team. The verification team has observed data collection techniques of the PP and confirms them to meet necessary quality requirements. The personnel involved has

demonstrated working knowledge of operating graduated scale and tape (to measure tree height). The DBH has been demonstrated to be taken using calliper at a height of 1.3 m (using a measuring scale which is made with comparisons to a calibrated scale) which is acceptable. Measurements are taken in an approved CDM monitoring format and were checked in original/MES/. Plantation journals covering plantation maps giving GPS data, local details and local factors were also checked.

The basic data (GBH and/or DBH, tree height, survival rate etc) is found to be cross checked on site on the sample plots along with independent checks to cross verify the recorded data. The verification team has witnessed the process of collection of data during site visit and has checked these values with the earlier entries. No abnormalities have been observed, No bias has been observed in data measurement, collection and recording. The sample plots have been marked with visible board signs, and no identification tags are found on the PSP

Further the verification team interviewed/IM03/ the land owner (farmer; tribal land holder) of the parcel or the operation and management staff (in case of forest land) with the sample plots to identify any bias in plantation management. The verification team has observed ignorance of the local land owners and staff (who manage the forest) of the location of the sample plot, and notes no reasonable doubt for any bias. Further parcels of plantation were also visited which were not a part of sample plots to check any bias. To ensure this the verification team visited a parcel of plot which was not a sample plot and took readings to check variations if any, and confirms that the readings on this plot to be within the expected range observed in the actual sample plots.

The verification team states with reasonable confidence that the data collection techniques of the PP can be trusted and is of acceptable level.

Accuracy of monitoring equipment

Accuracy of monitoring equipment in the project is maintained by means of periodic testing and other measures by the PP as specified in the SOP. The established practices and testing of accuracy of the monitoring equipment was checked at the site by means of calibration certificates and other documentary evidences furnished by the project proponent/CAL/ on site and were found appropriate. Calibration procedure and frequency was assessed as appropriate. No event of delayed or missing calibration was observed.

Data collection, measurement, calibration, recording and archiving was found to be carried out as per the monitoring plan as described in the registered PDD/PDD/.

5.6. Compliance with the monitoring methodology

The monitoring system and all applied procedures are completely in compliance to the registered monitoring plan. Project activity has been implemented as per the description provided in the registered PDD/PDD/. Monitoring is found done in line with the requirements of the monitoring plan contained in the validated and registered

PDD. No material discrepancies were identified between the PA on site observations and the project description[/PDD/]. There are no remaining issues from previous validation and no methodology deviations are observed. The monitoring system is in compliance with the applied monitoring methodology (AR-ACM0001 version 3). The verification team has observed no deviations except those as discussed in Annex 3 of this report.

5.7. Monitoring parameters

During the verification all relevant monitoring parameters (as listed in section E of the AR-CDM-PDD) have been verified with regard to the appropriateness of the applied measurement / determination methods, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist.

After appropriate corrections were carried out by the project participant, it can be confirmed that all monitoring parameters have been measured / determined and reported without material misstatements and in line with all applicable standards and relevant requirements.

All the monitoring parameters are monitored as per the monitoring plan as contained in the registered PDD[/PDD/] except for those changes discussed in Annex 3 of this report. Sample plot locations are found to be monitored during every annual measurement of the plantation at the PSP, which has been checked from the log sheet entries that present the geo-coordinates of the PSPs. The validation team based on its local and sector expertise confirmed from onsite assessments that the trees of declared species in the registered PDD as well as others species with similar characteristics for replacements (for those species having less survival rate due to the degraded land conditions) without affecting the baseline and additionality) have been planted and there is slight change in the species but the proportion of short and long growing species is maintained. The number of trees in a PSP is counted manually during every monitoring. The tree height of every tree in a sample plot is found to be recorded[/MSR/]. The measuring instrument (graduated scale or measuring tape) is one of the standard equipment for tree height measurement in the host country. The DBH is measured using calliper for each tree of a sample plot. Monitored DBH values are correctly reported and hence are acceptable. The measuring tape is found to be calibrated in line with forest inventory practice, which is acceptable. Mercantile volume is calculated from the values of monitored parameters.

As per EB 63 Annex 26, monitoring of fossil fuel is not required, hence the PP has not monitored the fossil fuel consumption. This is in line with the registered PDD. Similarly emissions resulting from clearance or burning of herbaceous vegetation have not been monitored and not accounted for project emissions, which is acceptable. Usage of fertilizers for estimation of emissions of nitrous oxide also has

not been monitored and accounted. Apart from this, the emissions resulting from transportation is also not accounted as per the provisions approved by the CDM EB. The verification team accepts this in light of Annex 31 of EB 68. The above ground biomass (AGB) and below ground biomass (BGB) and their respective carbon stocks are also found to be monitored, which is rather a calculated figure resulting from the earlier mentioned monitored parameters. Nevertheless, these values are found recorded annually, which is acceptable.

The verification team confirms that all the required parameters are being monitored appropriately.

5.8. Monitoring report

A draft monitoring report/MR1/ was submitted to the verification team by the project participant. The team has made this report publicly available prior to the start of the verification activities. No comments were received. On site assessment for verification was conducted by the verification team not earlier than two weeks from the date of webhosting.

During the verification, mistakes and needs for clarification were identified. The PP has carried out the requested corrections so that it can be confirmed that the Monitoring report/MR2/MR3 is complete and transparent and in accordance with the registered PDD/PDD/ and other relevant requirements.

Further the verification team also notes that there is no separate MR template available for CDM PAs and A/R CDM PAs. In this context, the MR available in the UNFCCC website/unfccc/ has been used for the A/R project as well, which is acceptable.

5.9. Sampling

5.9.1. Implementation of the sampling plan

As per the registered PDD the number of sample plots to be monitored was calculated to be 168. However on during the first verification 3210.19 ha (80.2%) of the land was planted and remaining 792.88 ha will be planted later. According to the proportion of the planted area, the PP in table D-1 of the MR presented the number of sample plots as 152. The verification team found that 152 PSPs were being maintained. On reviewing the number of PSPs, it was observed that the PP maintained the required the number of sample plots as per the registered PDD for the first five stratum mentioned in Table D-1 of the MR. For the community High stratum the PP laid 10 sample plots instead of 11 even though only 60% of the area is planted in that stratum. For the stratum in the private land, the PP planted only 40.31 ha as against the 533.2 ha which is 7.56%. However the sample plots as per the registered PDD in the 3 stratum of the private area are 20 but the PP laid 5 sample plots which is 25%. Also due the private nature of land and reasons beyond

the control of the PP, the PP could match the number of sample plots as per the registered PDD in the planted area.

Thus the reduction in sample plots is due to the non-planting in 20% of the area. The PP estimated the uncertainty as 27.43% and aptly applied 75% discount factor to the tree biomass and estimated the removals by sinks as per AR Tool 14. Hence the sample plots laid for this verification is considered appropriate.

The verification team has also done plausibility checks with reference to the guidance in §14 of the tool (even though this is not required to be applied to the project activity as per §12 of the tool).

VT confirms that data from each of the 152 PSPs is being collected appropriately The PP has also demonstrated that the selection of PSP was random. The 152 PSP of the PA have been randonly selected from the list of all land parcels spread over the plantation area. The sample plot selection process has been described in monitoring report. PSPs were selected from a list of all possible PSPs given in the project. The method of selecting PSPs was done using grid system and has been found to be free of biases. The laying of the PSPs has followed a random method of demarcating the PSP along different directions of the 152 selected. No GIS program was involved. Further, the verification team also visited plots which did not contain any sample parcels and made comparisons with sample plots. Also due to the reduction in the number of sample plots, the appropriate discount factor was applied to address the variability in the tree biomass estimate associated with less than adequate sample size. No bias was observed in the stand of parcels without any sample plots as compared to the sample plots.

A CL B5 on revised number of PSPs was raised and closed successfully.

Updating of strata is required as per the §2.1 of applied monitoring methodology/METH/. However, Re-stratification (ex post stratification) was not required as there was no event of unexpected disturbances occurring during the monitoring period (e.g., due to fire, pests or disease outbreaks), affecting differently various parts of an originally homogeneous stratum and the forest management activities (cleaning, planting, thinning, harvesting, coppicing, replanting) that are implemented in a way that affects the existing stratification. Established strata have not been merged.

5.9.2. Sampling approaches during verification

The on site assessment was conducted for actual plantation sites including 15 PSPs. Out of the 15 PSPs visited it was ensured that all strata have been represented. Project boundary was checked for 15 PSPs. The selected 15 PSPs includes Forest Low, Forest Medium, Forest High, Community low and Farm Forestry, Community Medium, Community High.

The sample size was generally calculated in line with G.5.3.12 of IAF Guidance on the Application of ISO/IEC Guide 66 where the square root shall be applied.

Assessing the site conditions and accessibility, it was decided to visit 15 PSPs for tree measurement as well as for project boundary. For PSPs and the non-PSP sites visited, the verification team checked spacing, height and DBH of trees, GPS location on sample basis.

All 15 Sample plots were selected out of 152 (square root of 152 is 12,3) (actually maintained on site) on random basis by the verification team. Simple random sampling approach was applied by the verification team ensuing that all strata are represented. The randomness was assured using random number table. Apart from that 2 land parcels of non-PSP sites were visited at random for further confidence of the observations.

5.10. ER Calculation

During the verification the PP didn't submit t-CER calculation and CL was raised and the subsequently CARs were raised to improve the calculation. A revised ER calculation was prepared by the PP and presented to the verification team. All raised issues were addressed appropriately so that all corresponding CARs could be closed out. Thus it is confirmed that the ER calculation is overall correct.

The formulae and factors used in the calculations of removals are in accordance to the approved methodology AR-ACM0001, version 3/METH/. All aspects related to the GHG removals and emissions relevant to the project have been addressed and calculations are presented in a transparent manner and in line with the applied methodology, tools and registered PDD/PDD/.

Baseline net removals by sinks, project net removals by sinks, actual net GHG removal, project activity emissions and leakage emissions have been calculated appropriately. The set of calculations for the actual net removals of the 1st verification period are transparently computed and presented in the spread sheet of t-CER calculation/XLS2/. GHG emission due to activity displacement has been identified as leakage in accordance with the applied methodology. Assumptions of grazing land required for the animals, existing or displaced in the project area are found based on survey conducted by an agency (non-governmental organization) contracted by M/s HP Mid Himalayan Watershed Development Project (MHWDP). Leakage due to conversion of land to grazing land is found nil and is assessed as correct, in light of the survey reports/GRZ/ and explanation provided in the monitoring report/MR/.

Correct and appropriate assumptions, default values etc. in accordance with AR-ACM0001 version 3 (including wood densities, biomass expansion factors for project sequestration in accordance with the applied methodology) have been appropriately applied. The sources of project specific original data were cross–checked and found to be correct based on the evidences provided by the PP. The same is listed in table 7-1 of this report.

Volume equation has been used in calculation, which is found to be in line with the applied methodology and paragraph 5 (a) of EB 67/Annex 24 "Demonstrating

appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities": Also the volume equations taken from the national forest inventory corresponds to the one where the DBH is more than 2 cm. This accepted as per the standard forest inventories prescribed by Forest Survey of India.

BEF method has been applied for calculation of actual net removals by sinks with use of Tool for Afforestation and Reforestation Approved Methodologies (TARAM) developed by Bio-Carbon Fund.

The volume equations used for the calculation are given in the ER calculation file in the sheet named "standard values". The source of the volume equations is applicable for Forests of India, Nepal & Bhutan, and published by Forest Survey of India Ministry of Environment & Forests, Government of India. Also the PP used the volume equation for the unidentified species, based on the equation prescribed for the rest of the species mentioned in the same publication, the source for the same is given. Thus all the volume equations used are as per the forest inventory practices of the host country, hence appropriate.

The verification team has checked the underlying input values as well as the computation in the spreadsheet/XLS2/. The calculation spreadsheet is found clear, unprotected and traceable. The estimation of the net actual removals by sinks was realized in a transparent and conservative manner. The tCER sheet contains the actual removals under 1st verification for the period 2006-07-01 to 2012-12-31 which is correctly calculated to be 65,582tCO_2 e (65,582 tCERs) against 170,746 tCO_2e estimated in registered PDD..

The removals calculation based available data applying re-stratification/RESTRAT/ was examined by verification team. A/R methodological tool "Calculation of the number of sample plots for measurements within A/R CDM project activities" version 2.1 is found correctly applied resulting in requirement of 148 PSPs, whereas 152 PSPs were found maintained by PP. Since numbers of PSPs in each revised stratum being maintained and monitored by PP are higher than what is required as per recalculation of PSPs for re-stratification, the calculation of NRs is acceptable.

Considering that the re-stratification (also leading to recalculation of PSPs) has been correctly applied and accordingly tCERs for the monitoring period under consideration have been correctly calculated, the verification team accepted the calculation with re-stratification.

Evidences produced to determine removals/MSR/ as listed in table 7-1 were found to be correct and authentic. These documents were verified through site visit interviews and found to be authentic. By the interview, it was found that the plantation staff, maintenance staff and supervisors are properly trained for the work assigned to them/TRG/. Verification Team has also verified on site the way of taking measurements

and samples. All the log sheet/MSR/ are checked during site visit and reported values are found consistent with them.

In addition to this, verification team has cross verified the entered values of the project activity monitoring parameters with the log records from the submitted documents/MSR/ and found that all input data values are correctly applied in the calculations of net GHG removals by sinks/XLS2/.

The PP furnished performance records of the project in form of data logs, registers and other documents/MSR/. tCER Calculation sheet/XLS2/ was checked thoroughly by the verification team for correctness of calculation approach. Data input values were also checked from the records maintained by the PP. Result of calculations reported in the monitoring report/MR2/ was checked against data values/figures as available from the PP in t-CER calculation sheet/XLS2/. These data values and other information related to project performance are available in the form of data logs and records duly archived and maintained as per the quality assurance/quality control procedure specified as part of monitoring plan given in the validated PDD/PDD/ and associated SOP.

5.11. Quality Management

Quality Management procedures for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel in the framework of this CDM project activity have been defined. The procedures defined can be assessed as appropriate for the purpose. No significant deviations thereof have been observed during the verification. However regular internal audits for the plantation unit were found evidenced. SOP has not been revised, and the monitoring team is found to follow the same practices throughout the monitoring period.

5.12. Actual emission reductions during the first commitment period and the period from 1 January 2013 onwards

The MR includes actual ER values achieved up to 31 December 2012 and actual values achieved from 1 January 2013 onwards as follows:

Table 5-2: Emission reductions before and after the end of 2012

	until 2012-12-31 [1)]	from 2013-01-01 [1)]	Sum
Emission reductions [tCO_{2e}]	65,582	0	65,582

[1)] Both days included

5.13. Comparison with ex-ante estimated emission reductions

The MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the registered PDD.

The ex-post determined value was found to be ~61.5% lower than the ex-ante calculated value, thus no further justification was required.

5.14. Overall Aspects of the Verification

All necessary and requested documentation was provided by the project participant so that a complete verification of all relevant issues could be carried out.

Access was granted to all sites of the plantation activity which are relevant for the project performance and the monitoring activities.

No issues have been identified indicating that the implementation of the project activity and the steps to claim emission reductions are not compliant with the UNFCCC criteria and relevant guidance provided by the COP/CMP and the CDM EB (clarifications and/or guidance).

5.15. Hints for next periodic Verification

No FARs have been raised in this verification.

6. VERIFICATION AND CERTIFICATION STATEMENT

M/s HP Mid-Himalayan Watershed Development Project (MHWDP) has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "India: Himachal Pradesh Reforestation Project – Improving Livelihoods and Watersheds", with regard to the relevant requirements for CDM project activities. The project removes GHG emissions due to reforestation of degraded land. This verification covers the period from 2006-07-01 to 2012-12-31 (including both days).

In the course of the verification 13 Corrective Action Requests (CAR) and 14 Clarification Requests (CR) were raised and successfully closed. No FARs are raised. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the registered PDD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AR-ACM0001 ver. 3
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 1st periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **65,582** t CO_{2e}

Coimbatore, 2015-04-09

G Ezhilarasu

TÜV NORD JI/CDM Certification Program

Verification Team Leader

Essen, 2015-04-09

Stefan Winter

TÜV NORD JI/CDM Certification Program

Final Approval

7. REFERENCES

Table 7-1: Documents provided by the project participant(s)

Reference	Document
/CAL/	Calibration certificates dated 15-04-2012 for: 1. Measuring tape. 2. Caliper 3. Height measurement device *e.g.* measurement scale 4. GPS instrument
/CARB/	Agreement regarding first right of CER between HP-MHWDP and the farmers involved in the PA dated 01-07-2006.
/CC/	Project start date evidence (2006-07-01).
/CR/	Casualty report issued annually on survival rate in every parcel of the project activity since the date of plantation
/GPS/	GPS coordinates of all the parcels and sample plots. GPS machine specifications Gramin GPS 76 Model with +/- 3 to 6 m accuracy.
/GRZ/	Report on survey conducted for assessing number of livestock present, grazing lands & feed resources available and biomass burning events in CDM project area in 2009 as part of PRA exercise.
/IA/	Internal Audit evidences- conducted in Nov 2012.
/LAND/	Land title details, User Agreement – Tripartite between Private land owners, PP and Divisional Forest Officer of the concerned Forest Division of the Forest Department for carbon rights along with the revenue sharing User Agreement – Tripartite between Village Forest Development Societies, PP and Divisional Forest Officer of the concerned Forest Division of the Forest Department for carbon rights along with the revenue sharing
/LSC/	1. List of all the beneficiaries with the details of name and land area. 2. Agreement/ Arrangement with the beneficiaries

Reference	Document
/MAP/	GPS mapping of the project boundary with maps, identifying the different strata.
/MR1/	Monitoring report version 01, dated 2013-03-15.
/MR2/	Monitoring report, final version 8 dated 2015-03-13
/MSR/	The Permanent Sample Plot (PSP) Data Collection Register for the monitoring period which records from 15th May 2012 to 31st October 2012.: 1. The sample plots with coordinates 2. Year of plantation 3. Strata 4. No. of trees in the sample plots 5. GBH /DBH 6. Mean GBH/ DBH 7. Height 8. Mean height 9. Volume of the stand per hectare 10. Standard deviation 11. Survival rate 12. Ploughing details 13. Weed checking 14. Harvested Location 15. Any notable event affecting carbon stock
/OM/	Operation Manual
/ORG/	Specific on-site organization chart for the JI/CDM project activity
/PER/	List of personnel involved with the PA since the start date with their qualification and nature of involvement
/PHOTO/	Photographs of the plantation during the site visit
/PSP/	Revised Calculation of required number of Permanent Sample Plots
/RESTRAT/	Calculation of net removals based on re-stratification, referring to the Sheet Stratification in Emission removal calculation spreadsheet
/SM/	Stratification Map of the project activity
/SOP/	Standard operating Procedure.
/TRG/	1. Training details of the personnel involved in CDM PA

Reference	Document
	2. Examination records
/XLS1/	Emission removal calculation spreadsheet corresponding to draft monitoring report
/XLS2/	Emission removal calculation spreadsheet corresponding to final monitoring report Emission removal calculation spreadsheet corresponding to updated monitoring report and incompleteness issues

Table 7-2: Background investigation and assessment documents

Reference	Document
/METH/	AR-ACM0001 ver. 3, "Afforestation and reforestation of degraded land"
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/GLMP/	Guidelines: Completing the monitoring report form (CDM-MR-FORM, Attachment)
/IPCC/	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book
/KP/	Kyoto Protocol (1997)
/GLC/	• Guidelines on Accounting of Specified Types of Changes in A/R CDM Project Activities from the Description in Registered Project Design Documents version 02.0 (Annex 24 EB 66) • Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities (Version 01.1) (EB68, Annex 31) • Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01) • Calculation of the number of sample plots for measurements within A/R CDM project Activities (version 02) • Tool for testing significance of GHG emissions in A/R CDM project activities (version 01)

Reference	Document
	• Estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of a CDM A/R project activity tool (version 03) • Tool for estimation of GHG emissions related to displacement of grazing activities in an A/R CDM project activity (version 02) • Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities (version 01) • Procedure to define the eligibility of land for afforestation and reforestation project activities (version01) • Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in A/R CDM project activities (version 01) • Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities (version 04.1) • Tool for estimation of changes in soil organic carbon stocks due to the implementation of A/R CDM Project Activities (version 01.1.0) • Demonstration of Appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities (version 01.0.1)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)
/MRT/	Monitoring Report Form (F-CDM-MR), Version 03.2
/PDD/	Project Design Document for CDM project: "*India*: Himachal Pradesh Reforestation Project – Improving Livelihoods and Watersheds" version 7, dated 2001-03-02
/PS/	CDM Project Standard (Version 6.0)
/VAL/	Validation Report for CDM project "*India*: Himachal Pradesh Reforestation Project – Improving Livelihoods and Watersheds" version 4, dated 2011-03-03
/VER/	Documents of previous verifications (Monitoring report, verification report, ER calculation sheet)
/VVS/	CDM Validation and Verification Standard (Version 07)

Table 7-3: Websites used

Reference	Link	Organisation
/dna/	http://cdmindia.in/	DNA of India
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications
/unfccc/	http://cdm.unfccc.int	UNFCCC
/mhwdp/	http://www.hpmidhimalayan.org/	HP-MHWDP
/moef/	http://www.envfor.nic.in/	Ministry of Environment & Forests

Table 7-4: List of interviewed persons

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms	Avtar singh	MHWDP/Chief Project Director
/IM01/	V	☒ Mr. ☐ Ms	Ajay Kumar Lal	MHWDP/Executive Director
/IM01/	V	☒ Mr. ☐ Ms	Sameer Rastogi	MHWDP/Regional Project Director
/IM01/	V	☒ Mr. ☐ Ms.	Dr. Pawnesh Sharma	MHWDP/Regional Project Director
/IM01/	V	☒ Mr. ☐ Ms.	J.L.Taank	MHWDP/DWDO
/IM01/	V	☒ Mr. ☐ Ms.	Dr. L.C.Patyal	MHWDP/DWDO
/IM01/	V	☒ Mr. ☐ Ms.	Rakesh Katoch	MHWDP/Divisional Forest Officer
/IM01/	V	☒ Mr. ☐ Ms.	Manohar Lal	MHWDP/Divisional Watershed Development Officer
/IM01/	V	☒ Mr. ☐ Ms.	Parveen Kumar	MHWDP/ Watershed Development Coordinator

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms.	Amar Das	MHWDP/ W.D.C
/IM01/	V	☒ Mr. ☐ Ms.	Manoj Kumar	MHWDP/ DWDC
/IM01/	V	☒ Mr. ☐ Ms.	Hem Singh Thakur	MHWDP/ AWDC
/IM01/	V	☒ Mr. ☐ Ms.	Man Singh Varma	MHWDP/ F.E.O
/IM01/	V	☒ Mr. ☐ Ms.	Devinder Bhandari	MHWDP/ WFF
/IM01/	V	☒ Mr. ☐ Ms.	Meera Sharma	MHWDP/ Dy Div Livelihood
/IM01/	V	☒ Mr. ☐ Ms.	Anil Sharma	MHWDP/ D.D.(Admin)
/IM01/	V	☒ Mr. ☐ Ms.	Satpal Singh	MHWDP/ WDC
/IM01/	V	☒ Mr. ☐ Ms.	K J S Chandel	MHWDP/ DWDO
/IM01/	V	☒ Mr. ☐ Ms.	A.K.anand	MHWDP/ DWDO
/IM01/	V	☒ Mr. ☐ Ms.	D.D.Sharma	MHWDP/
/IM01/	V	☒ Mr. ☐ Ms.	Shankar Lal	MHWDP/WDC
/IM01/	V	☒ Mr. ☐ Ms.	Sandeep Kumar	MHWDP/F.E.O
/IM01/	V	☒ Mr. ☐ Ms.	Pawan Kumar	MHWDP/F.E.O
/IM01/	V	☒ Mr. ☐ Ms.	Leela Shankar	MHWDP/F.E.O
/IM01/	V	☒ Mr. ☐ Ms.	Om Swaroop	MHWDC
/IM01/	V	☒ Mr.	Lekh Raj	MHWDP/ Forest Guard

Reference	MoI[1]		Name	Organisation / Function
		☐ Ms.		
/IM01/	V	☒ Mr. ☐ Ms.	Jagdish Gautam	MHWDP/ WDC
/IM01/	V	☒ Mr. ☐ Ms.	Kusam Pal	MHWDP/ Senior Forest Guard
/IM01/	V	☒ Mr. ☐ Ms.	V K Sood	MHWDP/ Forest Guard
/IM01/	V	☒ Mr. ☐ Ms.	Mehar Chand	MHWDP
/IM01/	V	☒ Mr. ☐ Ms.	Katral Dev	MHWDP/ Monitoring Assistant
/IM01/	V	☒ Mr. ☐ Ms.	Manoj Kumar	MHWDP/ Monitoring Assistant
/IM01/	V	☒ Mr. ☐ Ms.	Hari Saran	MHWDP/ AWDC
/IM01/	V	☒ Mr. ☐ Ms.	Vijay Sharma	MHWDP/ AWDC
/IM01/	V	☒ Mr. ☐ Ms.	Vijender Kumar	MHWDP/ FEO
/IM01/	V	☒ Mr. ☐ Ms.	Dr. Vivek Lamba	MHWDP/ SMS
/IM01/	V	☒ Mr. ☐ Ms.	B.R.Negi	MHWDP/ DWDO
/IM01/	V	☒ Mr. ☐ Ms.	Bhagat Ram	MHWDP/ WDC
/IM01/	V	☒ Mr. ☐ Ms.	Inder Negi	MHWDP/ AWDO
/IM01/	V	☒ Mr. ☐ Ms.	DevenderKumar Bhandari	MHWDP/ WFF
/IM01/	V	☒ Mr. ☐ Ms.	Rajesh Shukla	MHWDP/ DWDO
/IM01/	V	☒ Mr. ☐ Ms.	Prem Singh Thakur	MHWDP/ WDC

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms.	Sanjeev Thakur	MHWDP/ ADWDO
/IM01/	V	☒ Mr. ☐ Ms.	Ajay Verma	MHWDP/ System Admin
/IM02/	V	☒ Mr. ☐ Ms.	Rama Chandra Reddy	The World Bank/ Senior Carbon Finance Specialist)
/IM01/	V	☒ Mr. ☐ Ms.	Bans Bahadur Singh	MHWDP/ Training Coordinator
/IM01/	V	☒ Mr. ☐ Ms.	Kushal Kumar	MHWDP/AWDC
/IM01/	V	☒ Mr. ☐ Ms.	Sriram Singh	MHWDP
/IM01/	V	☒ Mr. ☐ Ms.	Madan Singh	MHWDP
/IM03/	V	☐ Mr. ☒ Ms.	Parvati	VFDS Member
/IM03/	V	☐ Mr. ☒ Ms	Sumti Devi	VFDS Member
/IM03/	V	☐ Mr. ☒ Ms	Namo Devi	VFDS Member
/IM03/	V	☐ Mr. ☒ Ms	Chhali Devi	VFDS Member
/IM03/	V	☒ Mr. ☐ Ms.	Dina Nath	VFDS Member
/IM03/	V	☒ Mr. ☐ Ms.	Ved Ram	VFDS Member
/IM03/	V	☒ Mr. ☐ Ms.	Mangal Chand	VFDS Member
/IM03/	V	☒ Mr. ☐ Ms.	Puran Chand	VFDS Member
/IM03/	V	☐ Mr. ☒ Ms	Pushpa Devi	VFDS Member

Reference	MoI[1]		Name	Organisation / Function
/IM03/	V	☐ Mr. ☒ Ms	Kalla Devi	VFDS Member
/IM03/	V	☐ Mr. ☒ Ms	Bodi Devi	VFDS Member
/IM03/	V	☒ Mr. ☐ Ms.	Udey Ram	VFDS Member
/IM03/	V	☒ Mr. ☐ Ms.	Murari Lal	VFDS Member
/IM03/	V	☐ Mr. ☒ Ms.	Ahilya Devi	VFDS Member
/IM02/	V	☒ Mr. ☐ Ms.	S Ariya Nayakam	Secretary
/IM03/	V	☒ Mr. ☐ Ms.	V P Samvlthiraj	Villager
/IM03/	V	☒ Mr. ☐ Ms.	V Durai Raj	Villager
/IM03/	V	☒ Mr. ☐ Ms.	V Morthi	Villager
/IM03/	V	☒ Mr. ☐ Ms.	S K Samy	Villager

[1)] Means of Interview: (**T**elephone, **E**-Mail, **V**isit)

ANNEX

A1: Verification Protocol

A2: Statements of Competence of involved Personnel

ANNEX 1: VERIFICATION PROTOCOL

Table A-1: GHG calculation procedures and management control testing / detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
Raw data generation				
• Installation of measuring equipment • Dysfunction of installed equipment • Maloperation by operational personnel • Downtimes of equipment • Exchange of equipment • Change of measurement equipment characteristic • Insufficient accuracy • Change of technology	• Installation of modern and state of the art equipment • Process control automation • Internal data review • Regular visual inspect-ions of installed equip-ment • Only skilled and trained personnel operates the relevant equipment • Daily raw data checks • Immediate exchange of dysfunctional equipment • Stand-by duty is	• Inadequate installation / operation of the monitoring equipment • Inadequate exchange of equipment • Change of personnel • Undetected measurement errors • Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies) • Non-application of management system procedures • Insufficient accuracy • Inappropriate QA/QC	• Site – visit • Check of equipment • Check of technical data sheets • Check of suppliers information / guarantees • Check of calibration records, if applicable • Check of maintenance records • Counter-check of raw data and commercial data • Check of CDM management system • Check of CDM related procedures	• **See Table A-2**

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
• Accuracy of values supplied by Third Parties	organized • Training • Internal audit procedures • Internal check of QA/QC measures of involved Third Parties	measures of Third Parties	• Application of CDM management system procedures • Check of trainings • Check of responsibilities • Check of QA/QC documentation / evidences of involved Third Parties	
Raw data collection and data aggregation				
• Wrong data transfer from raw data to daily and monthly aggregated reporting forms • IT Systems • Spread sheet programming • Manual data transmission • Data protection • Responsibilities	• Cross-check of data • Plausibility checks of various parameters. • Appropriate archiving system • Clear allocation of responsibilities • Application of CDM Management system procedures • Usage of standard software solutions	• Unintended usage of old data that has been revised • Incomplete documentation • Ex-post corrections of records • Ambiguous sources of information • Non-application of management system procedures • Manual data transfer mistakes	• Check of data aggregation steps • Counter-calculation • Data integrity checks by means of graphical data analysis and calculation of specific performance figures • Check of management system certification • Check of data archiving system	• **See Table A-2**

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
	(Spreadsheets) • Limited access to IT systems • Data protection procedures	• Unintended change of spread sheet programming or data base entries • Problems caused by updating/upgrading or change of applied software	• Check of application of Management system procedures	
Other calculation parameters				
• BEF, Root to Shoot ratio, Carbon fraction	• The values and data sources applied are defined in the PDD and monitoring plan	• Unintended or intended Modification of calculation parameters • Wrong application of values • Misinterpretations of the applied methodology and/ or the PDD • Missing update of applicable regulatory framework (e.g. IPCC values)	• Update-check of regulatory framework • Countercheck of the applied MP in the MR against the methodology and the PDD	• **See Table A-2**
Calculation Methods				

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including *Forward Action Requests*)
• Applied formulae • Miscalculation • Mistakes in spread-sheet calculation	• Advanced calculation and reporting tools • A CDM coordinator is in charge of the CDM related calculations • Usage of tested / counterchecked Excel spreadsheets • Involvement of external consultants	• The danger of miscal-culation can only be minimized.	• Countercheck on the basis of own calculation. • Spread sheet walk-trough. • Plausibility checks • Check of plots	• **See Table A-2**
Monitoring reporting				
• Data transfer to the author of the monitoring report • Data transfer to the monitoring report • Unintended use of outdated versions	• An experienced CDM consultant is responsible for monitoring reporting. • CDM QMS procedures are defined	• The danger of data transfer mistakes can only be minimized • Inappropriate application of QMS procedures	• Counter check with evidences provided. • Audit of procedure application	• **See Table A-2**

Table A-2: (Project specific) Periodic Verification Checklist

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
A. Description of the project activity				
A.1. Purpose and general description of the project activity ***(CDM-MR-FORM, Attachment, A.1)*** *Check if section A.1 of the MR includes the following:* - *Purpose of the PA and the measures taken to reduce GHG emissions* - *Brief description of the installed technology and equipment* - *Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc.)* - *Total emission removals achieved in this monitoring period*	/MR/ /PDD/ /IM01/ /IM02/	The verification team has checked section A.1 of the MR and confirms that the information provided is complete and correct with regards to the following: ☒ Purpose of the PA and the measures taken to remove GHG emissions ☒ Brief description of the installed technology and equipments ☐ Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc ☐ Total emission removals achieved in this monitoring period In this context the following findings have been identified: 1. Relevant dates for the project activity are missing in section A.1 of the MR. *2.* Total emission removals achieved in this monitoring period have not been indicated in the section A.1 of the MR.	~~CAR A1~~	OK
A.2. Location of project activity ***(CDM-MR-FORM, Attachment, A.2)*** *Check if section A.2 of the MR reflects correctly the following:*	/MR/ /PDD/ /IM/	The verification team has checked section A.2 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following:	~~CL A2~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
- *Host Party(ies)* - *Region / State / Province etc.* - *City / Town / Community etc.* - *Physical / geographical location (e.g. Latitude and Longitude)*		☐ Host Party(ies) ☒ Region / State / Province ☒ City / Town / Community ☐ Physical / Geographical location In this context the following findings have been identified: 1. Name of the host party is not provided in the section A.2 of the webhosted MR. *2.* Annex A.2 presenting physical/geographical location of land parcels as referred in section A.2 of the webhosted MR is not present.		
A.3. Parties and Project Participants ***(CDM-MR-FORM, Attachment, A.3)*** *Check if section A.3 of the MR includes the following:* - *All PPs as displayed on the UNFCCC website* - *A correctly filled table as per the MR template*	/MR/ /PDD/ /unfccc/	The verification team has checked section A.3 of the MR as well as the UNFCCC website and confirms that: ☐ all PPs as displayed on the project related UNFCCC website are correctly listed ☐ the table as per the template MR has been correctly filled In this context the following findings have been identified: 1. Name of the authorised participant from the host party in section A.3 of the MR is not matching with the UNFCCC website and registered PDD. *2.* Names of the Authorised participants from other parties (Annex I parties) and names of the other parties involved are not complete in the MR.	~~CAR A3~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
A.4. Reference of applied methodology ***(CDM-MR-FORM, Attachment, A.4)*** *Check if section A.4 of the MR correctly describes / includes the following:* - *Reference to the applicable version of the methodology* - *Reference to the applicable version(s) of relevant methodological tools* - *Relevant EB decisions, if applicable*	/MR/ /PDD/ /unfccc/	The verification team has checked section A.4 of the MR and confirms by means of comparison with the information given in the PDD and displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: ☒ Number, title and version of the applicable CDM Methodology ☐ Name and version of applicable CDM methodological tools ☐ Relevant EB decisions In this context the following finding have been identified: Reference to the applicable version(s) of relevant methodological tools and relevant EB decisions are found missing in section A.4 of the MR. This is not in line with the Guidelines for completing the monitoring report form version 4.0 (Annex 7/EB75).	~~CAR A4~~	OK
A.5. Crediting period of project activity ***(CDM-MR-FORM, Attachment, A.5)*** *Check if section A.5 of the MR correctly includes the following:* - *Start date of the crediting period. In this context please check, if applicable, whether post registration changes to the start date have been accepted by the EB.* - *Length and type of the crediting period*	/MR/ /unfccc/	The verification team has checked section A.5 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: ☐ Start date of the crediting period. ☐ Type and length of the crediting period In this context the following findings have been identified: As per the Guidelines for completing the monitoring report form	~~CAR A5~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		version 4.0 (Annex 7/EB75), type and start date of the crediting period need to be mentioned in the section A.5 of the monitoring report. This information is missing in the published MR.		
A.6. Publication of the Monitoring Report ***(VVS, § 243)*** *Check if the monitoring report has been made publicly available on the UNFCCC website before the verification commenced.* *Check if comments have been received and if yes, how they have been addressed.*	/unfccc/	The verification team has ensured and confirms by means of checking the respective project information on the UNFCCC website that: ☒ The draft monitoring report, as received from the project participants, has been made publicly available prior to the start of the verification activities. ☒ No comments have been received. In this context the following findings have been identified: N/A	OK	OK
A.7. Compliance with standardized format of the Monitoring Report ***(VVS, § 247 e)*** *Check (only) if the latest applicable MR template has been used.For compliance assessment with the MR guideline pl. refer to the respective MR sections.*	/MRT/	The verification team has checked all sections of the MR and confirms by means of comparison with the MR template that: ☒ the standardized MR template has been used In this context the following findings have been identified: N/A	OK	OK
B. Implementation of project activity				
B.1. Description of implemented registered project activity ***(CDM-MR-FORM, Attachment, B.1)*** *Check if section B.1 of the MR correctly describes / includes the following:*	/MR/ /PDD/ /PS/ /IM/	The verification team has checked section B.1 of the MR and confirms by means of comparison with the information given in the PDD, the project standard and information gathered during the site visit that: ☒ the description of the implementation status of the PA is in	~~CL B1~~	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
- *Implementation status of the PA* - *Detailed description of installed technology(ies) / technical processes and equipment applied* - *Diagrams (where appropriate)*		line with the applicable provisions of the project standard ☐ an appropriate description of the installed technology(ies), technical process and equipment incl.diagrams, where applicable, has been included In this context the following findings have been identified: 1. Names of the species planted as a part of the project activity have not been provided in section B.1 of the MR. Further density of fast growing and slow growing species planted on site need to be compared with density stipulated in the Box A.5.2 of the registered PDD. 2. As per the section B.1 of the MR, 792.88 ha area was not planted till the end of 2012. PP is requested to – a. Provide stratum wise and district wise details of the not planted area in the MR b. Clarify further plan/schedule of planting this area.		
B.1.1. Initial project implementation ***(VVS; § 260 a, 261)*** *Assess whether the project has been implemented and operated as per the registered PDD and are all physical features of the project in place?* *Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.* *Check if the project is still in compliance with the*	/MR/ /IM01/ /PDD/	*Description:* The project is found implemented in 9 districts of Himachal Pradesh. A total of 3210.19 ha area is planted till the end of the monitoring period. As per the section B.2.6 of the published MR, change in species composition has occurred. It was confirmed that all lands planted as a part of project activity are degraded in nature. Flooding irrigation was not practiced. Project activity is not implemented on organic soils. Project has increased availability of fuel-wood in the project area. *Verifier´s action:* Webhosted MR was checked against PDD and applied methodology. On site interviews were conducted with project staff and local stakeholders. Project records were	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
applicability conditions of the methodology. *Also, discuss – if applicable – the necessity of PRC notifications / approvals.*		checked. No changes have been observed related to the project technology, such as the species being planted, silvicultural practices etc. *Conclusion:* Project is largely implemented as stipulated in PDD. Out of entire 4003.07 ha area, 80% has been planted during the monitoring period. Species composition has changed and corresponding details have been requested as a part of CL B1. No PRC approvals are required; all changes are A/R specific.		
B.1.2. Technical equipment changes ***(VVS; § 260 a, 261)*** *Check if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period. Further ensure that consistent notations of key equipment (meters etc.) in PDD, MR and calculation spreadsheet are applied* *Consider e.g. interviews with operational personnel, QMS records, maintenance records, instrument specifications.* *In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission removal calculation.* *In case of post registration changes pl. refer to chapter B.2.*	/MR/ /IM01/ /PDD/	*Description:* Species planted on project lands was found to be those as specified in the CDM-AR-PDD. Specifications of key monitoring instruments i.e. measuring tape and GPS instrument were evidenced during the verification site visit. Key equipment at site were found to be consistent with the registered PDD, MR and calculation spreadsheet. *Verifier´s action:* Interview with project staff and land owners were conducted and calibration records were checked. *Conclusion:* As evident from site visit observations, interviews and document check that no species planted is changed and no measuring instrument was changed. There is no change from the description provided in the PDD.	OK	OK
B.1.3. Operation of the project activity	/MR/	*Description:* Project has been implemented on degraded forest	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
~~(~~***(VVS; § 260 a, 261)*** *Check if relevant operation modes of the project activity have been exchanged or modified during the monitoring period.* *Consider e.g. interviews with operational personnel, operation log sheets, data management system records.* *In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission removal calculation.* *In case of post registration changes pl. refer to chapter B.2.*	/IM01/ /PDD/	lands, community lands and private lands. Accordingly restoration forestry model, community forestry model and farm forestry model have been adopted as described in registered PDD. The monitoring period starts on 2006-07-01 and ends on 2012-12-31 (both days included). First day of the monitoring period is the start date of planting which is in this case the start of the crediting period. *Verifier´s action:* Personnel involved in operation of the project activity were interviewed during on site audit. Operation log sheets including filed records, measurement sheets were checked. *Conclusion:* Project is implemented as per the registered PDD. All changes are AR specific and do not require prior approval from the CDM EB.		
B.1.4. Incidents ***(VVS; § 260 a, 261)*** *Identify if there have been any significant incidents, deviant operation modes and / or downtimes of the equipment?* *Consider e.g. interviews with operational personnel, operational log sheets, analysis of performance data.*	/MR/ /IM01/	*Description:* PP is requested to provide details of any events occurred during the monitoring period that have or may have impact on emission removals. Significant incidents include fire, flood, mortality due to unfavourable weather conditions (eg chill) or losses due to diseases and pests. Further, these may also include conscious land clearing for any reason. *Verifier´s action:* HP-MHWDP representatives and land owners were interviewed. From the interviews, no such event is observed to have occurred. There is no reported losses due to fire, flood or chill. All the land owners are found to be the same as identified during validation. Further, as observed from the permanent sample plot data collection register for the monitoring	~~CL B2~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		period, no PSP was observed with 0 survival rate, which also indicates no significant incidents such as wide spread pest attack or losses due to other unforeseen reasons or planned reasons. *Conclusion:* CL is raised.		
B.1.5. Legislation Find out – esp. in the context of methodological requirements - whether relevant legislation with effect on the project activity in the host country has been changed. Assess, in case of changes, whether consequences for the PA with regard to relevant CDM requirements have been accounted for. In case of changes data sources shall be referenced.	/MR/ /IM01/ /moef/	*Description:* Interviews with representatives of the project participants and verification of various documents, verification team found that the various aspects of project activity w.r.t. the reforestation of degraded land is line with regulatory requirements. Moreover the national/sectoral regulations were verified from Ministry of Environment and Forests. There were no changes in the regulation which can affect the removals by sinks in the project activity. Therefore the verification team confirms that the change in legislation has no impact on the project activity. *Verifier´s action:* MoEF regulations are publically available documents and were checked by the verifier. *Conclusion:* No relevant legislation with effect on the project activity in the host country has been changed.	OK	OK
B.1.6. Open issues from validation ~~*(VVS; § 248)*~~ *Check (esp. in case of 1st periodic verification) whether there are any open issues indicated in the*	/VAL/ /MR/	☐ There were no open issues addressed in the validation report ☐ All open issues from the validation have been appropriately addressed.	~~CAR B3~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
validation report (e.g. FAR)?		☒ The following issues related to the validation have not yet been appropriately addressed: Provide evidence on control over private land included in the project.		
B.1.7. Open issues from previous verification ***(VVS; §§ 248; 319 h)*** *Check in case of further periodic verifications whether there are any open issues indicated in previous verification reports (FAR) and take into consideration the guidance as specified in VVS.*	/VER/	☒ There were no open issues addressed in the previous verification report ☐ All open issues from the previous verification have been appropriately addressed. ☐ The following issues related to the previous verification have not yet been appropriately addressed: This is the 1st periodic verification, and there is no verifications done prior to this.	OK	OK
B.1.8. Confirmation of project boundary for A/R project activities	/MR/ /PDD/	*Description:* In accordance with paragraph 109 of the Project Standard version 5.0 (later 6.0), when submitting the first monitoring report for verification, the project boundary shall be fixed in such a way that it geographically delineates exclusively the registered CDM A/R project activity under the control of the project participants. Project participant is required to demonstrate the actual project boundary confirming with the one outlined in the PDD with all the necessary supporting documents. *Verifier´s action:* Monitoring report was checked. *Conclusion:* CAR was raised.	~~CAR B4~~	OK
B.1.9. Separate assessment on stratification	/MR/	*Description:*	~~CL B5~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
	/PDD/	PP to clarify if there is any change from ex-ante stratification in the project activity, in light of section 2.1 of the applied methodology on requirement of updating of strata and also as per the section E.2 of the registered PDD. *Verifier´s action:* PDD & MR is checked *Conclusion:* CL B5 is raised.		
B.2. Post registration changes				
B.2.1. Are post registration changes applicable to the proposed project activity?	/MR/ /PDD/ /IM01	☐ No, by means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology. (Please proceed with section C) ☒ Yes, post registration changes have been identified and are assessed in detail in the subsequent steps. (Please proceed with B.2.2.) All post registration changes are A/R specific and are discussed in detail in Annex 3. None of them require prior approval from the EB.	OK	OK
B.2.2. Temporary deviations from the registered monitoring plan or	/PS/ /unfccc/	☒ No TDfrMP or TDfMM.have been submitted to the	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
applied methodology (TDfrMP; TDfMM) ***(CDM-MR-FORM, Attachment, B.2.1; VVS §§ 286 - 291)*** *Indicate whether any temporary deviations have been applied during this monitoring periods.* *In cases where approval has been sought from the EB please provide reference.* *If applied, provide a description of the deviation(s).* *This should include the reasons for the deviation(s), how it deviates from the monitoring plan and/or applied methodology(ies), the duration for which the deviation(s) is(are) applicable and justification on the conservativeness of the approach. Indicate if the deviation will lead to a reduction in the accuracy and if so, which conservative assumptions and discount factors have been applied.* *For deviation(s) that require prior approval by the Board, include the date of approval and reference number.*		☐ UNFCCC prior to the current monitoring period ☐ The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC 1 Title Status ☐ under approval; ☐ approved Appr.date Ref. No. 2 Title Status ☐ under approval; ☐ approved Appr.date Ref.No. ☒ During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA ☐ An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply. 1 Issue: 2 Issue: ☐ The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:		

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		☐ 1 Issue: ☐ 2 Issue: *In cases of approved TDfrMP or TDfM the EB guidance has been applied as follows:* *Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:* In this context the following findings have been identified: N/A		
B.2.3. Corrections ***(CDM-MR-FORM, Attachment, B.2.2; VVS; §§ 292 - 294)*** *Indicate whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report.* *In cases where the correction(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the*	/PDD/ /MR	☒ During the verification of the current MP no need for corrections has been identified. ☐ The following corrections have been applied: 1 Issue: 2 Issue:	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD. *Please check and report that the corrected information is an accurate reflection of the actual project information and that the corrected parameters are in accordance with the applied methodology and the monitoring plan.*		*Detailed description and justification each correction:* In this context the following findings have been identified: N/A		
B.2.4. Permanent changes from the registered monitoring plan or applied methodology (PCfrMP; PCfMM) ***(CDM-MR-FORM, Attachment, B.2.3; VVS; §§ 295 - 303)*** *Indicate whether any permanent changes from the registered monitoring plan or applied methodologies have been approved during this monitoring period or submitted with this monitoring report.* *In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.*	/PDD/ /MR	☒ No PCfrMP or PCfMM.have been submitted to the UNFCCC prior to the current monitoring period ☐ The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC 1 Title Status ☐ under approval; ☐ approved Appr.date Ref. No. 2 Title Status ☐ under approval; ☐ approved Appr.date Ref.No. ☒ During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.

plan is in accordance with the approved methodology applied by the PA

☐ An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.

1	Issue:	
2	Issue:	

☐ The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:

1	Issue:	
2	Issue:	

In cases of approved PCfrMP or PCfMM *the EB guidance has been applied as follows:*

Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:

In this context the following findings have been identified:

N/A

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
B.2.5. Changes to the project design of the registered project activity (CoPD) ***(CDM-MR-FORM, Attachment, B.2.4; VVS; §§ 304 - 317)*** *Indicate whether any changes to the project design of the project activity have been approved during this monitoring period or submitted with this monitoring report.* *In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.*	/PDD/ /MR	☒ No CoPD has been submitted to the UNFCCC prior to the current monitoring period ☐ The following CoPD has been approved or are under approval by the UNFCCC 1 Title Status ☐ under approval; ☐ approved Appr.date Ref. No. 2 Title Status ☐ under approval; ☐ approved Appr.date Ref.No. ☐ During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA ☐ An approval of the following CoPD.is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply. 1 Issue: 2 Issue:	OK	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		☐ The following CoPD for which appendix 1 of the PS is applicable have been applied: 1 Issue: 2 Issue: *In cases of approved CoPD the EB guidance has been applied as follows:* *Detailed description and justification each CoPD for which appendix 1 of the CDM Project Standard is applicable:* In this context the following findings have been identified: N/A		
B.2.6. A/R specific types of changes	/PDD/ /MR	Following AR specific changes have been identified: 1. Changes in year wise areas planted, possibly resulting in a part of the project area not being planted. (EB 66 Annex 24 §§ a) 2. Changes in species composition, if the changes are demonstrated at verification to be consistent with the baseline identification and additionality demonstration made at the validation stage. (EB 66 Annex 24 §§ b)	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		3. Changes in technology employed; (EB 66 Annex 24 §§ i) 4. Changes in number of sample plots and their allocation to strata. ((EB 66 Annex 24 §§ m) These changes have been described in B.2.6 of the MR and have been assessed in Annex 3 submitted with this report.		
C. Description of monitoring system				
C.1. Monitoring Plan – PDD Compliance ***(VVS, §§ 268-271)*** *Check if the monitoring plan is in accordance with the monitoring plan contained in the registered PDD (or any accepted revised MP).* *Please check esp. if* - *all parameters stated in the MP of the registered PDD have been monitored and updated as applicable* - *the monitoring equipment has been controlled and calibrated as per the MP* - *the monitoring results are consistently recorded as per the approved frequency*	/MR/ /PDD/	By means of comparison of the MR with the registered PDD (or any revisions thereof) the verification team has checked whether the MP is in compliance with the registered PDD. The outcome is as follows: ☒ The MP is completely in accordance with the last registered/approved version of the PDD / MP. In this context the following findings have been identified: • Evidence of the calibration of monitoring equipments shall be provided.	~~CL C1~~	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
- *QA/QC procedures have been applied in accordance with the MP*				
C.2. Monitoring Plan – Meth Compliance ***(VVS, §§ 264-267)*** *Check if the monitoring plan is in accordance with the applied methodology.* *In case the methodology references applicable tools it has to be ensured that the MP is also compliant with those tools.* *Also please specify if monitoring aspects have been identified that are not specified in the methodology but may enhance the level of accuracy and completeness of the monitoring plan – this esp. applies for SSC PAs.*	/MR/ /PDD/ /AM9/ /T-FFC/ /T-EC/ /T-CAD/	By means of comparison of the MR with the applied CDM methodology and related tools the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology. The outcome is as follows: ☒ The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD) ☒ The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows: 1 – Title (of the tool): Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities Version: 1 MP compliance: ☒ full compliance ☐ findings have been raised ☐ N/A (for MP) 2 – Title (of the tool): Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities	~~CL C2~~	OK

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.
				Version	1		
				MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)		
			3	Title (of the tool)	Tool for the identification of degraded or degrading lands for consideration in implementing A/R CDM project activities		
				Version	1		
				MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)		
			4	Title (of the tool)	Tool for estimation of emissions from clearing, burning and decay of existing vegetation due to implementation of an A/R CDM project activity		
				Version	1		
				MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)		
			5	Title (of the tool)	Estimation of the increase in		

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)			Draft Concl.	Final Concl.
				GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity (replaced Tool for estimation of GHG emissions related to displacement of grazing activities in an A/R CDM project activity)		
			Version	1		
			MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)		
		6	Title (of the tool)	Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in A/R CDM project activities		
			Version	1		
			MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)		
		7	Title (of the tool)	Calculation of the number of sample plots for measurements within A/R CDM project activities		

Checklist Item (incl. guidance for the verification team)	Refe-rence	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.

		Version	2
		MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)
	8	Title (of the tool)	Tool for testing significance of GHG emissions in A/R CDM project activities
		Version	1
		MP compliance	☐ full compliance ☐ findings have been raised ☒ N/A (for MP)

In this context the following findings have been identified:

Following tools have been used in the monitoring report; however, these are not referred in the applied version of the methodology and in the registered PDD:

1. Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities
2. Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities

PP shall clarify the justification behind using these tools.

Regarding aspects that are not specified in the methodology the no issues have been identified which may enhance the level of

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		accuracy and completeness of the MP.		
C.3. Management System ***(VVS, §§ 252 (a) (iii))*** *Check if the GHG data monitoring system can be assessed as appropriate.* *In case reference is made to a (certified) company quality management system, check if all CDM related monitoring procedures have been fully integrated in the project participant's quality management system.* *In case of a stand-alone system, check how the GHG management system has been implemented and effectiveness is ensured.*	/PDD/ /IM01/ /SOP/	*Description:* HP-MHWDP is not a certified company and has not implemented standard based management system. However the project follows a standard operating procedure in line with good forestry practices of the host country. *Verifier´s action:* SOP was checked. *Conclusion:* GHG data monitoring system can be assessed as appropriate.	OK	OK
C.4. Metering diagram ***(CDM-MR-FORM, Attachment, C; PS §193)*** *Check first if the MR includes a metering diagram showing all relevant monitoring points.* *Check further if this diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.*	/MR/ /PS/	*Description:* The verification team notes that the A/R PA does not involve metering as in non A/R CDM PAs. All A/R PAs involved measurement of annual increment in biomass, which is done by ground measurements. A "metering" diagram has not been included showing sample design and measurement points in accordance with §196 of the PS (version 5.0). *Verifier´s action:* Monitoring report was checked. *Conclusion:* CAR was raised.	~~CAR C3~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
C.5. Roles and Responsibilities ***(CDM-MR-FORM, Attachment, C; PS §193)*** *Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan. Please consider the complete data trail from raw data generation to submission of the final data.* *Identify, if relevant personnel w.r.t. monitoring has been exchanged?* *If so, have appropriate training measures been carried out.* *In case of changes, assure that the implemented monitoring procedures have not been affected.*	/MR/ /PS/	*Description:* Applicable organization structure given in section C which matches with section E.7 of registered PDD and was found matching with actual operation during on site assessment. The core CDM personnel are observed to be qualified and trained. However, the following observations are made: As part of Quality Assurance and Quality Control procedures, appropriate trainings should be provided to the personnel involved in the field measurement works. As per the procedure training will be done to the new staff recruited. PP shall provide evidence of the same. *Verifier´s action:* MR was checked and on site interviews were conducted. *Conclusion:* CAR was raised.	~~CL C4~~	OK
C.6. Emergency procedures for the monitoring system ***(EB 70 Annex 11, C; PS §193)*** *Check, as appropriate, whether relevant emergency procedures for the monitoring system have been included in the MR and assess whether these procedures have been implemented, when required*	/MR/ /PS/	*Description:* No emergency procedures for the monitoring system were found mentioned in the section C of the published MR. As §196 of PS version 5.0, relevant emergency procedures for the monitoring system need to be included in the MR. *Verifier´s action:* MR was checked. *Conclusion:* CAR was raised.	~~CAR C5~~	OK
C.7. Data archive and data protection	/PDD/	*Description:* All data is found recorded in paper and/or electronic	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
(PS §56 b) Check whether all records of monitoring parameters are archived according to the monitoring plan. Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data.	/MR/	form. Appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data. *Verifier´s action:* Data archives were checked. *Conclusion:* All records of monitoring parameters are archived according to the monitoring plan.		
D. Data and parameters				
D.1. Data and Parameters fixed ex ante				
D.1.1. BEF1,j		Biomass expansion factor		

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
a) Compliance with registered PDD ***(EB 70 Annex 11; D1)*** *Check whether the value applied is in compliance with the registered PDD.*	/PDD/ /MR/ /IPCC/	*Description:* Biomass expansion factor for conversion of annual net increment (including bark) in stem biomass to total aboveground tree biomass increment is species specific value of BEF is found taken from IPCC GPG LULUCF. *Verifier´s action:* Value of BEF is taken as 1.2 which was checked from IPCC GPG for LULUCF (2003) Table- 3A.1.10. *Conclusion:* PP shall clarify if $BEF_{1,j}$ has been applied for calculation as indicated in section D.1 of the MR. As per E.2 of the MR, $BEF_{2,j}$ has been applied in calculation. As per the applied methodology, $BEF_{2,j}$ is required to be used in the concerned equation. Further, section E.4 of PDD refers to the use of species specific or group of species specific $BEF_{2,j}$ values to be sourced from the validated spreadsheet, whereas MR has referred one single global value.	~~CL D1~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
b) Compliance with the applied methodology ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/PDD/ /MR/ /IPCC/	*Description:* Biomass expansion factor for conversion of annual net increment (including bark) in stem biomass to total aboveground tree biomass increment is species specific value of BEF is found taken from IPCC GPG LULUCF. *Verifier´s action:* *Conclusion:* Depends on closure of CL raised above.	~~CL D1~~	OK
D.1.2. Rj		Root to shoot ratio		
a) Compliance with registered PDD ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the registered PDD.*	/PDD/ /MR/	*Description:* RS ratio is a dimensionless value which is used for calculation of belowground biomass. A value of 0.24 is found used for calculation and is reported in the MR. *Verifier´s action:* Value of Root to Shoot ratio is taken as 0.24 which was checked from PDD. *Conclusion:* The value of Root -shoot ratio is not in compliance with registered PDD. The PDD refers to the use of species specific or group of species specific R/S values from the validated spreadsheet, whereas MR has referred one single global value.	~~CL D2~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
b) Compliance with the applied methodology ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/PDD/ /MR/	*Description:* R is found IPCC default value (IPCC GPG LULUCF Table-3A.1.8). *Verifier´s action:* CL was raised. *Conclusion:* Depends on closure of CL raised above.	~~CL D2~~	OK
D.1.3. Dj		Basic wood density		
a) Compliance with registered PDD ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the registered PDD.*	/PDD/ /MR/	*Description:* Basic wood density is used for calculation of the volume of the stand. It is not clear which values have been used for calculation. *Verifier´s action:* MR was checked. *Conclusion:* CL was raised	~~CL D3~~	OK
b) Compliance with the applied methodology ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/PDD/ /MR/	*Description:* *Verifier´s action:* CL was raised. *Conclusion:* Depends on closure of CL raised above.	~~CL D3~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
D.1.4. CFj		Carbon fraction of dry matter		
a) Compliance with registered PDD ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the registered PDD.*	/PDD/ /MR/	*Description:* Carbon fraction in dry biomass is taken as 0.5 t C/t dry matter (i.e. 50%). *Verifier´s action:* Value of carbon fraction is taken as 0.5 t C/t dry matter which was checked from PDD and applied methodology. *Conclusion:* The value is in compliance with registered PDD.	OK	OK
b) Compliance with the applied methodology ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/PDD/ /MR/	*Description:* Carbon fraction in dry matter is found IPCC default value. *Verifier´s action:* Value of CF is 0.5 which is confirmed from MR and spreadsheet. *Conclusion:* The value is in compliance with AR-ACM001 version 03.	OK	OK
D.1.5. SOC (ΔC)		Default annual increase in carbon stock in SOC		
a) Compliance with registered PDD ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the registered PDD.*	/PDD/ /MR/	*Description:* Default annual increase in carbon stock in SOC (ΔC) is missing from the section D.1 of the published MR. *Verifier´s action:* *Conclusion:* CAR is raised.	~~CAR D4~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
b) Compliance with the applied methodology ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/PDD/ /MR/	*Description:* *Verifier´s action:* *Conclusion:* Pending on closure of CAR above.	~~CAR D4~~	OK
D.1.6. $t_{equilibrium}$		Time until a new equilibrium in carbon stock in SOC is reached		
a) Compliance with registered PDD ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the registered PDD.*	/PDD/ /MR/	*Description:* Time until a new equilibrium in carbon stock in SOC is reached ($t_{equilibrium}$) is missing from the section D.1 of the published MR. *Verifier´s action:* *Conclusion:* CAR is raised.	~~CAR D4~~	OK
b) Compliance with the applied methodology ***(CDM-MR-FORM, Attachment; D1, VVS § 246 (d))*** *Check whether the value applied is in compliance with the applied methodology or any other tool.*	/PDD/ /MR/	*Description:* *Verifier´s action:* *Conclusion:* Pending on closure of CAR above.		
D.2. Data and Parameters monitored				

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
D.2.1. A, A_i & A_{pi}, $A_{BiomassBurn,t}$		Total area of the project, Total area of stratum i and Area of sample plot p of stratum i and Area affected in the biomass burn		
a) Measurement / Determination method ***(VVS, §§ 268, 271)*** *Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/IM01/ /PDD/ /METH/ /MR/	*Description:* The GPS and GIS readings and measuring tapes are used to find the boundary of the each plot and based on this information the area of the each plot is calculated. Then it summed for each stratum and sum of all strata gives the total project area. This applicable for burn area due to fire as well. *Verifier´s action:* During the on site visit the VT checked calculation for some sample plots p of stratum i, and the same is found correct. The total under the control of PP and planted were checked for correctness. *Conclusion:* Thus it is found the area under this project activity is well demarcated and the overall estimation is correct,	OK	OK
b) Accuracy and QA/QC Procedure ***(VVS, §§ 272-278)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have*	/CAL/ /MM/	*Description:* Monitoring equipment used are GPS meter and measuring tapes. *Verifier´s action:* The Tapes and callipers used are readily available in the market and the calibration records are checked	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
been made for calculating ERs. *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*		*Conclusion:* Thus it is concluded that the QC/ QA procedure for monitoring equipments are adequate and the accuracy level is achieved.		
c) Correctness ***(VVS, §§ 268, 271)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/	☒ Correct ☐ Not correct (initial assessment) *Description:* *Verifier´s action:* *Conclusion:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
D.2.2. ,t1 and t2		Time in interval between measurements of sample plots		
a) Measurement / Determination method ***(VVS, §§ 268, 271)*** *Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/SOP/ /MR	*Description:* The time interval between measurements of sample plots is 6.6 years. *Verifier´s action:* The SOPs are defined and the trained personnel in forestry management are involved in the measurements *Conclusion:* Thus the it is concluded that standard procedures are adopted for the montoring of the parameters.	OK	OK
b) Accuracy and QA/QC Procedure ***(VVS, §§ 272-278)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have*		NA	NA	NA

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
been made for calculating ERs. *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*				
c) Correctness ***(VVS, §§ 268, 271)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/	☒ Correct ☐ Not correct (initial assessment) *Description:* *Verifier´s action:* *Conclusion:*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
D.2.3. DBH, H		Diameter of the tree at breast hieght and height of trees		
a) Measurement / Determination method ***(VVS, §§ 268, 271)*** *Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*	/MR/ /PDD/ /SOP/ /IM01/	*Description:* The Tree height is measured using Pole method and diameter at breast height is measured using tapes and callipers *Verifier´s action:* On site, it was verified, the pole method is the direct and easy method to measure the height of the low standing trees and the measurement method adapted for diameter calculation is standard forestry procedure *Conclusion:* The monitoring methods are found correct however CAR D6 is raised	~~CAR D6~~	OK
b) Accuracy and QA/QC Procedure ***(VVS, §§ 272-278)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have*	/CAL/ /MM/	*Description:* Monitoring equipment has not been specified in the MR for tree height in the section D.2 of the MR. *Verifier´s action:* *Conclusion:* Pending on closure of CAR D6.	~~CAR D6~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
been made for calculating ERs. *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*				
c) Correctness ***(VVS, §§ 268, 271)*** *Determine whether the value given in the monitoring report is correct or determined in a conservative manner.* *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*	/MR/	☐ Correct ☒ Not correct (initial assessment) *Description:* *Verifier´s action:* *Conclusion:* Pending on CARs	~~CAR D5~~ ~~CAR D6~~	OK
D.2.4. j, %,		Species planted and Survival of seedlings		
a) Measurement / Determination method ***(VVS, §§ 268, 271)*** *Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied*	/IM01/ /PDD/ /METH/	*Description:* Following monitoring parameters are found missing in section D.2 of the monitoring report: • Species planted	~~CAR D5~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
data aggregation trails (from ODL to data aggregation level zero (DAL0)). *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.* *Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.*		• Survival of seedlings *Verifier´s action:* *Conclusion:* Pending on closure of CAR D5.		
b) Accuracy and QA/QC Procedure ***(VVS, §§ 272-278)*** *In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.* *Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.*	/CAL/ /MM/	*Description:* Monitoring equipment has not been specified in the MR for tree height in the section D.2 of the MR. *Verifier´s action:* *Conclusion:* Pending on closure of CAR D6.	~~CAR D6~~	OK
c) Correctness ***(VVS, §§ 268, 271)***	/MR/	☐ Correct ☐ Not correct (initial assessment) *Description:*	~~CAR D5~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
Determine whether the value given in the monitoring report is correct or determined in a conservative manner. *In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.* *In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.*		*Verifier´s action:* *Conclusion:* Pending on CARs	~~CAR D6~~	
D.3. Sampling				
a) Implementation of sampling plan ***(CDM-MR-FORM, Attachment; D3)*** *Check whether the PP has applied a sampling approach to determine the monitored values (as per section D.2 above).* *If this is the case, please provide an assessment whether the PPs have correctly and sufficiently described the implemented sampling plan including* *a) Description of the implemented sampling design* *b) Collected data* *c) Analysis of collected data* *d) Demonstration on whether the required confidence/precision has been met.*	/PDD/ /MR/	☐ No sampling approach has been used by the PP to determine the monitored parameters **OR** ☒ A sampling approach has been taken for the following monitored parameter: ***Parameter: DBH, H, Survival rate, species j*** *Description:* PP has monitored all the said growth parameters of trees in permanent sample plots. A stratified random sampling approach was employed. Sample size has changed from original as described in registered PDD. Recalculation of sample size has been correctly described in the monitoring report. Data is collected as per the mentoring plan and is processed to arrive at the values of net removals by sinks. As per the table D.3.2 of the webhosted MR, number of sample plots has been redacted from 168 to 148 as 792.93 ha area has been reported as 'Unplanted'. However, page 8 and page 15 of	~~CAR D7~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		published MR (version 1.0) refer to the number of sample plots as 152. PP shall clarify the actual numbers of sample plots monitored. Further, justification for reduction in number of sample plots is missing in the monitoring report. From the information available in the MR, it could not be ascertained that the recalculated sampling design has met the required confidence/precision levels. Sampling design is not clearly described in the monitoring report. What was the systematic approach of this sampling? How it was ensured that each stratum gets the calculated amount of PSPs? Please describe what technique was used to define the coordinate within the selected forest areas. *Verifier´s action:* Webhosted MR was checked. *Conclusion:* CAR was raised.	~~CL D8~~	
b) Sampling during verification *In case the VT has applied a sampling approach in the course of the verification the approach shall be described for each parameter.*	/MR/	☐ No sampling approach has been used by the VT to verify the monitored parameters **OR**. ☒ A sampling approach has been applied by the VT for the following monitored parameter: ***Parameter: DBH, H, Survival rate, species j*** *Description:* In order to verify PP data recorded in last monitoring with field observations, a visit to PSPs and non PSP	OK	OK

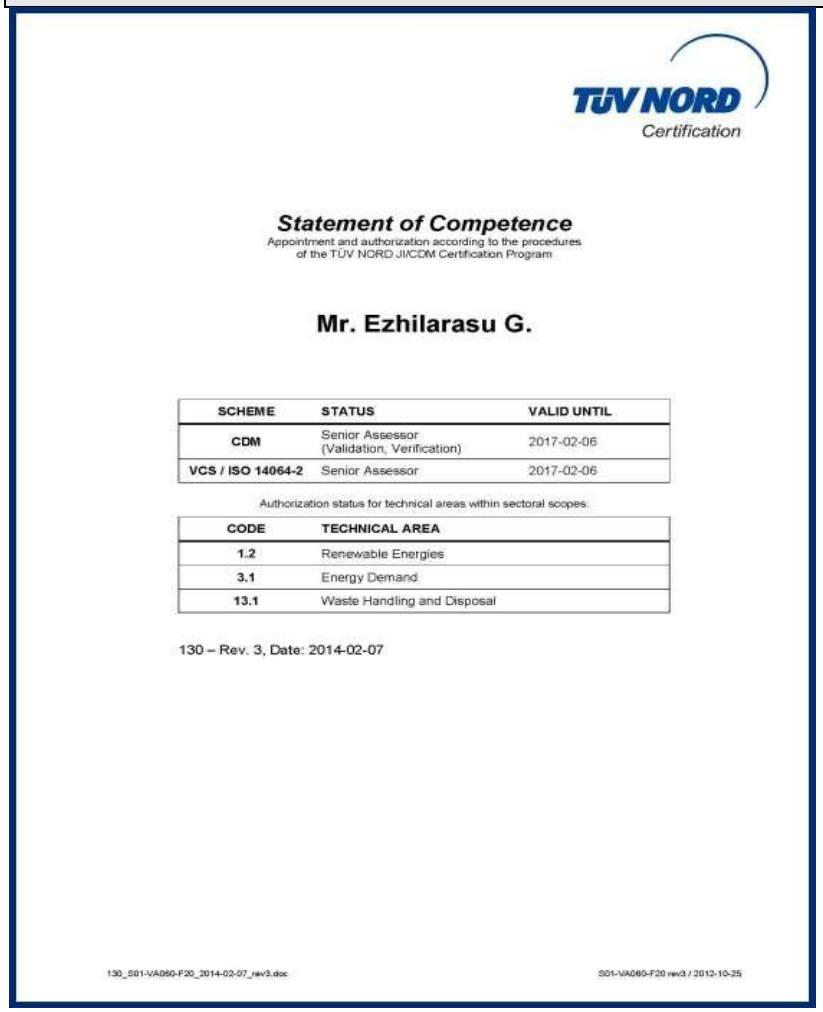
Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
		sites were conducted by the VT. *Conclusion:* VT has applied a sampling approach in the course of the verification. The number of sample size is 152 and the VT decided to take 15 sample plots (SQRT of 152 = rounded to 13) to confirm the species, plot locations and GPS co-ordinates (for area) and 2 other land parcels of Non – PSPS are also selected to check the area of the land parcels/ GPS details mentioned in the calculation. Thus the sample selected for verification is deemed adequate as per point G.5.3.12 of IAF Guidance on the application of ISO/IEC Guide 66 for sampling.		
E. Calculation of Emission removals				
E.1. Traceability ***(VVS, §§ 247, 249)*** *Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spread-sheet shall be used. All applied formulae must be visible.*	/XLS/	*Description:* Spreadsheet containing calculation of net removals by sinks has not been provided by PP. *Verifier´s action:* *Conclusion:* CL was raised.	~~CL E1~~	OK
E.2. Parameter consistency ***(VVS, § 249)*** *Assess whether all internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet?* *Consider only the correct data exchange between the*	/XLS/	*Description:* *Verifier´s action:* *Conclusion:* Pending on receipt of spreadsheet in response to CL E1.	~~CL E1~~	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
monitoring report and the calculation spreadsheet (if any). Further ensure the consistency of notations for all parameters in the PDD, MR, calculation spreadsheet.				
E.3. Correctness of calculation ***(VVS, §§ 279-280)*** *Check if the applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and / or the approved methodology.* *Assess whether the provided calculations are complete and reflect all requirements of the monitoring plan.* *Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.*	/XLS/ /MR/ /PDD/	*Description:* Footnote 5 pertaining to grass production under the A/R CDM project activity is double the pre-project grass production under the section E.3 (Calculation of leakage) of the MR is missing. *Verifier´s action:* *Conclusion:* Pending	~~CL E2~~	OK
E.4. Emission removals table ***(CDM-MR-FORM, Attachment, E.4)*** *Check if the MR includes a summary table of the emission removals calculation specifiying separately* - *Total baseline emissions* - *Total project emissions:* - *Total leakage*	/XLS/ /MR/ /PDD/	☒ The MR includes in section E.4 a summary table of the emission removals calculation. ☒ The summary table specified the total baseline, project and leakage emissions as well as the total emission removals separately. ☐ The values as specified in the ER summary table are correct; no issues have been identified during the verification which require changes in the ER calculation.	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
- *Total emission removals.* *Assess whether the values are correct or need to be revised as a consequence of issues identified above.*		☐ During the verification issues with impact on the ER calculation have been identified. Thus subject to the closure of above listed findings the summary table in E.4 needs to be revised. In this context the following additional findings have been identified: N/A		
E.5. Comparison with ex-ante determined emission removals ***(CDM-MR-FORM, Attachment, E.5; E.6)*** *Check if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.* *Check further whether in case of an increase an appropriate explanation is included in the MR.* *Assess in case of a significant increase whether this is due to technical or organisational changes within or outside the control of the PP and – if this is case – whether the PRC have been considered appropriately.*	/XLS/ /MR/ /PDD/	*Description:* MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD. *Verifier´s action:* MR was checked and compared with PDD. *Conclusion:* Actual removals are less than removals estimated in the PDD for corresponding monitoring period due to the reduction in the planting area in the private lands lower growth rates of the trees, low survival and delayed planting schedule.	OK	OK
E.6. ER during the 1st commitment period and the period from 1 January 2013 onwards ***((CDM-MR-FORM, Attachment, E.7)***	/XLS/ /MR/ /PDD/	☒ The MR in section E.7 includes a summary table of the ER breakdown *a) ER up to 2012-12-31 and* *b) ER from 2013-01-01 onwards*	OK	OK

Checklist Item (incl. guidance for the verification team)	**Refe-rence**	**Verification Team Comments** (Means and results of assessment)	**Draft Concl.**	**Final Concl.**
Check if the MR includes in chapter E.7 a breakdown of the actual ER into *a) ER up to 2012-12-31 and* *b) ER from 2013-01-01 onwards* *The ERs for each period should be determined as per the actual generation. In cases where this is not possible or a cap has been applied a proportional (time related) approach should be chosen.*		☐ The breakdown of the ERs during the first commitment period and from 2013-01-01 onwards is as follows: ☒ The ER have completely been generated during the first commitment period ☐ The ERs have completely been generated from 2013-01-01 onwards, ☐ The ERs have partly been generated during the first commitment period and partly from 2013-01-01 onwards. ☒ The breakdown of the ERs is correct, considering the applicable guidance. In this context the following additional findings have been identified: N/A		

ANNEX 2: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Ezhilarasu G.

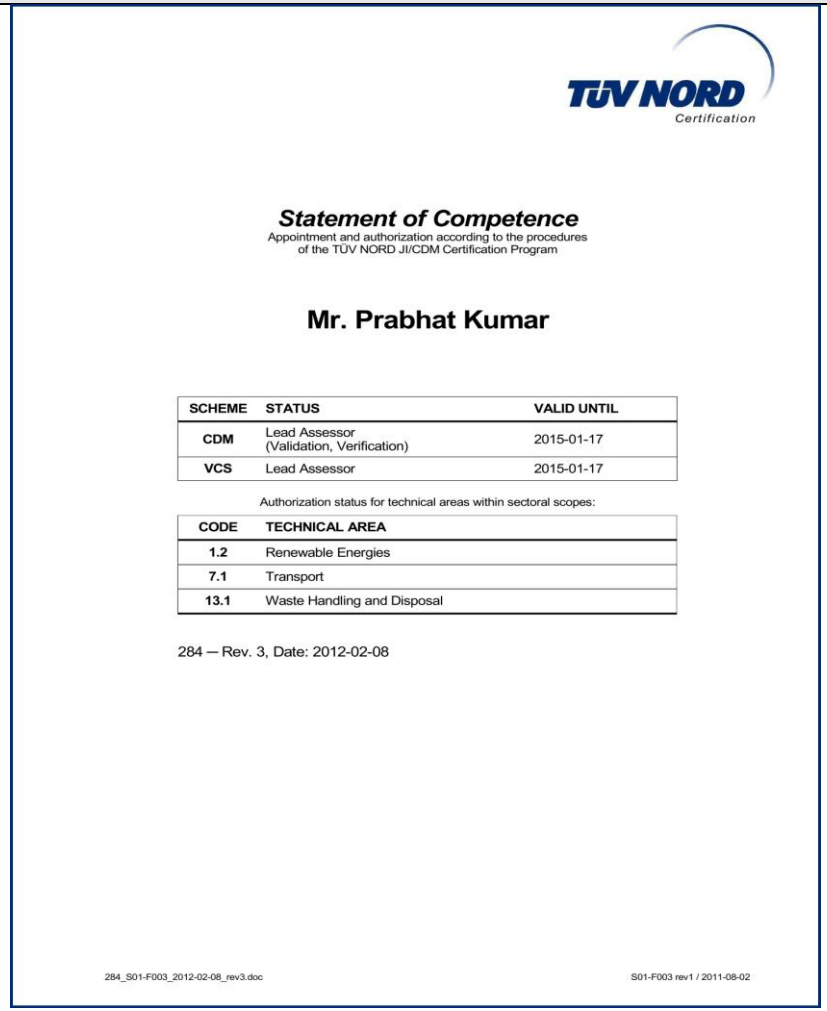
SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2017-02-06
VCS / ISO 14064-2	Senior Assessor	2017-02-06

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy Demand
13.1	Waste Handling and Disposal

130 – Rev. 3, Date: 2014-02-07

130_S01-VA060-F20_2014-02-07_rev3.doc S01-VA060-F20 rev3 / 2012-10-25



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Prabhat Kumar

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification)	2015-01-17
VCS	Lead Assessor	2015-01-17

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
7.1	Transport
13.1	Waste Handling and Disposal

284 – Rev. 3, Date: 2012-02-08

284_S01-F003_2012-02-08_rev3.doc S01-F003 rev1 / 2011-08-02

TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Lokesh Chandra Dube

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification) Technical Reviewer	2015-06-03
VCS / ISO 14064-2	Lead Assessor Technical Reviewer	2015-06-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy Demand
13.1	Waste Handling and Disposal
13.2	Animal Waste Management
14.1	Forestry
15.1	Agriculture
15.2	Animal Waste Management

155 – Rev. 3, Date: 2012-06-15

155_S01-F003_2012-06-15_rev3.doc S01-F003 rev2 / 2012-04-05

TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Grzegorz Kochaniewicz

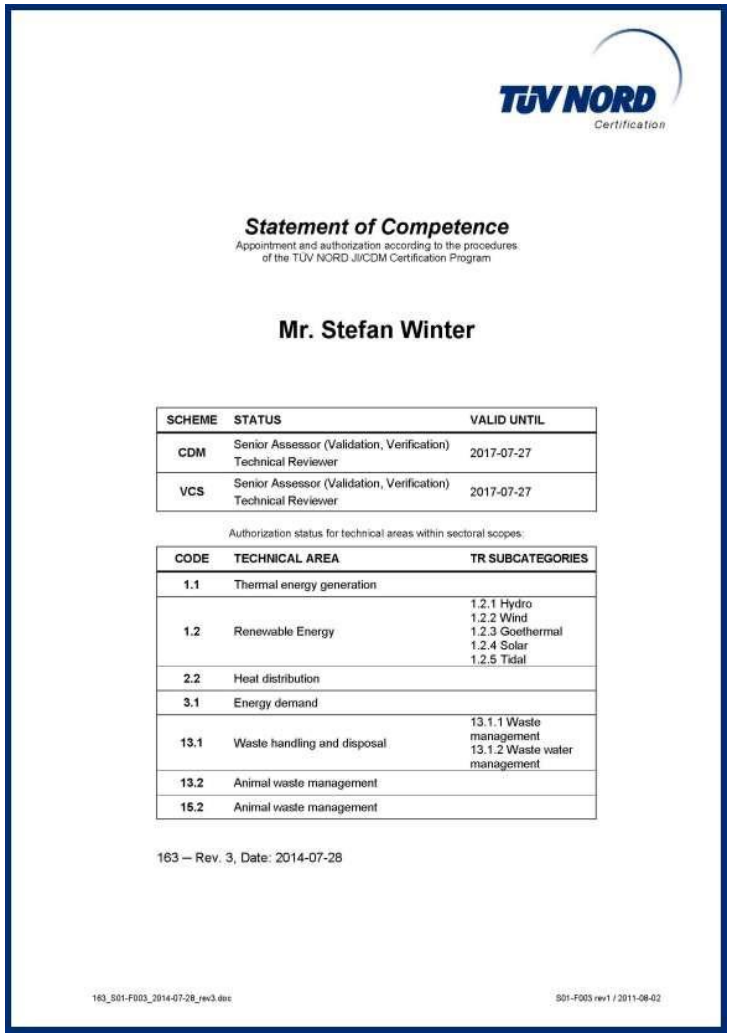
SCHEME	STATUS	VALID UNTIL
CDM Validation/ Verification	Lead Assessor	2016-01-24
VCS / ISO 14064-2	Lead Assessor	2016-01-24

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
3.1	Energy Demand
14.1	Forestry

173 – Rev. 4, Date: 2013-11-04

173_S01-VA060-F20_2013-11-04_rev4 S01-VA060-F20 rev3 / 2012-10-25



TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Stefan Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2017-07-27
VCS	Senior Assessor (Validation, Verification) Technical Reviewer	2017-07-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal energy generation	
1.2	Renewable Energy	1.2.1 Hydro 1.2.2 Wind 1.2.3 Goethermal 1.2.4 Solar 1.2.5 Tidal
2.2	Heat distribution	
3.1	Energy demand	
13.1	Waste handling and disposal	13.1.1 Waste management 13.1.2 Waste water management
13.2	Animal waste management	
15.2	Animal waste management	

163 – Rev. 3, Date: 2014-07-28

163_S01-F003_2014-07-28_rev3.doc S01-F003 rev1 / 2011-08-02