

# GAP VALIDATION AND VERIFICATION OF TIST PROGRAM IN INDIA, VCS001

**EPIC Sustainability**

Document Prepared By:

## **EPIC Sustainability Services Private Limited**

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## Summary

Clean Air Action Corporation has appointed EPIC Sustainability Services Private Limited to perform the Gap Validation and second periodic verification under third edition of the CCB standards. The assessment covered the scope of the gap validation and verification of the sustainable benefits achieved for the project titled "TIST Program in India, VCS 001" for the period from 13 November 2012 - 29-December-2017.

The verification was based on the project description (PD), CCB PIR reports and previous validation and verification reports and other supporting documents made available to the assessment team by the client.

TIST India VCS 001 is a grouped project and is also validated and verified as a VCS project. The project was first validated and verified under the 2nd Edition of CCB in March 2013. The initial project description (PD) is for a subset of the TIST project in India and consisted of 452 of the Small Groups, 2,599 members, 924 project areas and 672 ha. In this assessment, 1,936 new instances have been added expanding the PD to 1,144 SmallGroups, 5,628 members, 2,860 project areas and 2,216 ha. Because the CCB second edition does not allow the addition of more project areas or instances, the CCB PD and PIR is submitted updating the requirements based on the third edition.

The project Combines sustainable development with carbon sequestration and supports the reforestation and biodiversity efforts of the subsistence farmers. Carbon credit sales generate participant income and provide project funding to address agricultural, HIV/AIDS, nutritional and fuel challenges. GHG certification for the same monitoring period has been undertaken under the VCS standard.

The scope of this assessment is defined as a validation of the newly added instances and periodic independent review and ex post determination by EPIC, of the proposed and monitored CCBA indicators during defined verification period, and consisted of the following three phases

1. Desk review of the project documents and supporting evidences;
2. Physical site inspection and follow-up interviews with project stakeholders;
3. Resolution of outstanding issues and the issuance of the final report

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

The assessment team identified, through the assessment process, Corrective Action Requests (CAR) and Clarification (CL) and Information Requests (IR). A total of 02 CARs, 1 CL and 1 IR were identified in the current assessment. The client has taken actions and submitted to EPIC the revised reports and supporting evidence. The assessment team, through the validation and verification process, confirmed that the project is implemented based on the validated project design and the newly added instances meet the CCB requirements and is able to record real and quantifiable sustainable benefits.

On the basis of the physical site inspection of the project activity and review of the documents submitted by the project participant, the assessment team confirms that, the newly added areas confirm with CCB requirements and for verification period from 13 November 2012 - 29-December-2017., the CCB indicators have been monitored in line with CCBA requirements. In conclusion, it is EPICs opinion that the CCBA Project Description for TIST Program in India, dated 06<sup>th</sup> August 2018 Version 02 and CCBA Project Implementation Report dated 06<sup>th</sup> August 2018 Version 03, meets all relevant requirements established by the CCB Standard, Methodology as applicable including the identification of social economic and environmental impacts as well the presentation of the results obtained in accordance to the CCBA indicators.

**Table of Contents**

**1 Introduction..... 4**

1.1 Objective ..... 4

1.2 Scope and Criteria ..... 4

1.3 Level of Assurance..... 4

1.4 Summary Description of the Project ..... 4

**2 Verification Process..... 4**

2.1 Audit Team Composition..... 5

2.2 Method and Criteria..... 6

2.3 Document Review ..... 6

2.4 Interviews ..... 6

2.5 Site Inspections ..... 7

2.6 Resolution of Findings..... 7

2.7 Eligibility for Validation Activities ..... 8

**3 Validation Findings ..... 8**

3.1 Participation under Other GHG Programs ..... 8

3.2 Methodology Deviations ..... 9

3.3 Project Description Deviations ..... 9

3.4 Minor Changes to Project Description ..... 10

3.5 Grouped Project ..... 10

**4 Verification Findings.....12**

4.1 Summary of Project Benefits..... 12

4.2 General..... 12

4.3 Climate ..... 18

4.4 Community ..... 22

4.5 Biodiversity ..... 26

4.6 Additional Project Implementation Information ..... 29

4.7 Additional Project Impact Information ..... 29

**5 Verification Conclusion .....29**

**Appendix 1: Resolution of findings.....31**

## 1. INTRODUCTION

### 1.1 Objective

EPIC Sustainability Services Private Limited (EPIC) has been contracted by Clean Air Action Corporation to undertake the second periodic independent verification of the CCB project activity titled “TIST Program in India, VCS 001”.

- To verify that the actual monitoring system and procedures are in full compliance with the system and procedures described in the monitoring plan of validated PD as well as with the CCB requirements;
- Identification of social economic and environmental impacts as well the presentation of the results obtained in accordance to the CCBA indicators

### 1.2 Scope and Criteria

The CCB Standard for this project activity being complimentary to the VCS, does not in itself set the criteria regarding the project type, location, and size, crediting period or baseline and monitoring methodologies; it covers only criteria of climate community and biodiversity impact of the project but not for emission reduction itself.

The scope of the Gap validation and verification covers the independent evaluation of this specific project activity by a certifying entity against the requirements of the CCB Standard and its indicators, on the basis of the Project Design (PD) Project Implementation Report (PIR) report submitted. The PD has been updated to reflect the additions of new instances. The project was first validated and verified under the 2nd Edition of CCB. The initial project description (PD) is for a subset of the TIST project in India and consisted of 452 of the Small Groups, 2,599 members, 924 project areas and 672 ha. In this assessment, 1,936 new instances have been added expanding the PD to 1,144 SmallGroups, 5,628 members, 2,860 project areas and 2,216 ha. Because the CCB second edition does not allow the addition of more project areas or instances, the CCB PD and PIR are submitted updating the requirements based on the third edition.

The implementation status of the monitoring regarding the Climate, Community and Biodiversity indicators are verified based on CCB Standard (Third Edition) in order to confirm that the impacts arising from a carbon offset project for the indicators are documented with adequate justification and can be reasonably verified.

The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

### 1.3 Summary Description of the Project

The Project Design (PD) Project Implementation Report (PIR) report submitted using the 3<sup>rd</sup> edition of the CCB standard is for 1,144 SmallGroups, 5,628 members, 2,860 project areas and 2,216 ha. Because the CCB second edition does not allow the addition of more project areas or instances, the CCB PD and PIR is submitted updating the requirements based on the third edition.

The project Combines sustainable development with carbon sequestration and supports the reforestation and biodiversity efforts of the subsistence farmers. Carbon credit sales generate participant income and provide project funding to address agricultural, HIV/AIDS, nutritional and fuel challenges. Certification for the emission reductions achieved is undertaken under the VCS for the same project.

## 2. VERIFICATION PROCESS

The overall verification process, beginning from the Contract Review to Verification report, certification statement & opinion, was conducted using internal procedures of EPIC Sustainability Services Pvt. Ltd. (ESSPL). As part of this assessment, validation of the inclusion of new project activity instances into this grouped project in addition to verification was also performed.

The validation and verification process consisted of the following phases:

- a document review of the project design documents, monitoring reports and preparation of verification protocol;
- on-site visit to the project activity and interviews with project developer and project consultant;
- and resolution of outstanding issues and the issuance of final verification report and opinion

The Verification was based on the guidance documents provided by CCB which included the CCB Climate, Community & Biodiversity Standards, v3.1, Rules for the Use of the Climate, Community & Biodiversity Standards, v3.0 and CCB Program Rules, v3.1.

During the assessment, non-fulfillment of the criteria or identified risks to the fulfilment of project objectives were raised as either CAR or CR. Corrective Action Requests (CAR) were issued, where:

- mistakes had been made that directly impacted on the project results; or
- CCB requirements had not been met; or
- there was a risk that the project would not be accepted as a CCB project or that emission reductions / sustainable benefits will not be certified.

The Clarification Requests (CR) were issued where additional information was needed to clarify issues, and Forward Action Requests (FAR) for issues relating to project implementation that required review during the first verification of the project activity. The list of the CARs and CRs are summarised in Appendix 1.

### 2.1 Audit Team Composition

The following team members from EPIC were involved in the assessment:

Name	Role	Components reviewed
Dr D .Siddaramu	Lead Auditor	Completeness check, desk review, onsite inspection, Interview with project representatives, issuance of findings, report preparation.
Dr G Vishnu	Team Leader	Completeness check, desk review, issuance of findings, report preparation.
Dr R. Madhukar and Mr A. Vijaya Ragahvan	Team Member	Interviews with community and forestry land use patterns
Mr A. Prabu Das	Technical Reviewer	Checking and verifying of information related to draft final report.

## 2.2 Method and Criteria

The verification and sampling plan methodology was based on VCS guidance documents and ISO 14064-3. For this monitoring period, sampling was based upon the active samples with minimum criteria of covering at least 2.5% sample size. For this verification, 70 samples were visited during the site visit and the farmers owning the properties were interviewed, which amounted to almost 2.5 % of the sample size considering that the active samples. A risk based approach was used to select the samples to allow a review of members targeted to represent a wide geographic range of sites; sufficient to provide the necessary sample size and to meet a reasonable level of assurance.

## 2.3 Document Review

The verification was performed primarily based on the review of the PD, and PIR submitted and the supporting documentation. This process included:-

1. review of data and information presented to verify their completeness
2. review of the Monitoring Plan and monitoring methodology,
3. verification of the quantification of sustainable benefits achieved.

The documents submitted were initially reviewed and further EPIC requested the PP to present the supporting evidences. Additional background information and documents related to the project performance were also reviewed by EPIC. Through the process of the validation and verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CRs issued by EPIC. The documents reviewed by EPIC are listed in References section of this report. EPIC reviewed the final version of the documents, CCB PD Version 2.0 dated 06<sup>th</sup> August 2018 and CCB PIR Version 3.0 dated 06<sup>th</sup> August 2018 to confirm that all changes agreed had been incorporated. The entire list of documents reviewed is summarized in Section 6.0.

## 2.4 Interviews

Name Designation	Company	Interview Topics												
Mr. Joseph Raxon	TIST India Manager	Project design, Project implementation, Procedures, Monitoring plan and Procedures												
Mr. P. Janakiramam	TIST Field Manager	Monitoring plan and Procedures, Training details, field measurement												
Mr. M. Mohan Raj	TIST Field Manager	Monitoring plan and Procedures, Training details, field measurements												
Mr. M. Mohan Raj Mr. G. Balasubramanian Mr. M. Elumalai Mr A. Chellaperumal	TIST Quantifiers	Field measurements, Species identification, data entry												
<table border="1"> <thead> <tr> <th>District</th> <th>Number of samples</th> </tr> </thead> <tbody> <tr> <td>Kanchipuram</td> <td>5</td> </tr> <tr> <td>Tiruvallur</td> <td>10</td> </tr> <tr> <td>Tiruvannamalai</td> <td>30</td> </tr> <tr> <td>Vellore</td> <td>12</td> </tr> <tr> <td>Villupuram</td> <td>13</td> </tr> </tbody> </table>	District	Number of samples	Kanchipuram	5	Tiruvallur	10	Tiruvannamalai	30	Vellore	12	Villupuram	13	TIST Program members	Farming practices followed, Knowledge of TIST policies, Attendance at cluster meetings
District	Number of samples													
Kanchipuram	5													
Tiruvallur	10													
Tiruvannamalai	30													
Vellore	12													
Villupuram	13													

## 2.5 Site Inspections

An onsite visit was conducted during the period 17th – 23rd September 2017. The sampling criteria were based on the total active number of samples as described in section 2.1. The on-site assessment which was conducted as a part of verification activity involved:

- 1) An assessment of the implementation and operation of the CCB project activity as per the registered PD
- 2) A review of information flows for generating, aggregating and reporting of the monitoring parameters
- 3) Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan
- 4) A cross-check between information provided in the PD, PIR and data from other sources
- 5) Observations of monitoring practices against the requirements of the PD and the applied methodology
- 6) Interviews with local stakeholders to confirm that the project meets the sustainability benefits criteria as defined by CCB
- 7) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters.

## 2.6 Resolution of Findings

The objective of this phase of the verification was to resolve the corrective action requests and clarifications and any other outstanding issues which needed to be clarified prior to EPIC positive conclusion on the monitoring report and the project design. During the validation and verification process 02 CARs, 1 CL and 1 IR were raised.

All the findings were resolved during this phase. In order to ensure the transparency of the validation process, the concerns raised and responses that were given are summarized in Appendix 1 of this report and documented in more detail in the Verification in Appendix 1. All the corrective actions have been incorporated into the monitoring report.

## 2.7 Internal quality control

A Technical Reviewer is appointed to review the final draft reports. The comments made by the Technical Reviewer are taken into consideration and incorporated in the final report. The final report (after resolutions of all findings) is then submitted to the Head – Operations for review and approval.

## 2.8 Forward Action Requests

There are no FARs raised during this verification process.

## 2.9 Eligibility for Validation Activities

EPIC is accredited for validation and verification for the scopes 1-11 and 13-15 by CDM UNFCCC and as well as by the VCS board.

## 3. VALIDATION FINDINGS

Validation of the inclusion of new project activity instances into this grouped project was performed as part of this assessment. The project activity is a grouped AFOLU project, eligible under the Afforestation, Reforestation and Revegetation (ARR) category.

The Project Design (PD) Project Implementation Report (PIR) report submitted using the 3<sup>rd</sup> edition of the CCB standard is for 1,144 Small Groups, 5,628 members, 2,860 project areas and 2,216 ha. Because the CCB second edition does not allow the addition of more project areas or instances, the CCB PD and PIR is submitted updating the requirements based on the third edition.

The project Combines sustainable development with carbon sequestration and supports the reforestation and biodiversity efforts of the subsistence farmers. Carbon credit sales generate participant income and provide project funding to address agricultural, HIV/AIDS, nutritional and fuel challenges. Certification for the emission reductions achieved is undertaken under the VCS project. Hence the scope of the Gap Validation covered the new areas added.

### 3.1 Participation under Other GHG Programs

The project has not applied for other GHG programs such as CDM, GS, etc. The same is verified through the declaration letter from PP confirming that the project is not claiming any other environmental credits. The GHG certification is only under VCS which quantifies GHG credits generated for the same monitoring period.



**3.2 Methodology Deviations**

No methodology deviations were found in this monitoring period

**3.3 Project Description Deviations**

The following deviations from project descriptions are found in the PIR:

Original description in PD	Revised description in MR	Verification team's opinion
<p>The operational processes for monitoring the actual GHG removal by the sinks are for TIST Quantifiers to visit each grove once per year and, at minimum, once every five years to count trees and collect circumference, GPS and other data (Section 4.1.3). TIST Quantifiers are not visiting each PA (grove) once per year.</p>	<p>The entire TIST program in India was modified and centered on a "Cluster" administrative structure. A Cluster is a group of Small Groups within walking distance that has their own local leadership. It is where Small Groups receive training, voucher payment, share "best practices," share news and newsletters and discuss quantification issues. A Quantifier is assigned to each Cluster and their scope has been broadened to include training and assisting Cluster leaders as they rotate into new positions. The Cluster provides an alternate method of gathering intelligence about what is happening at the Small Group level and to individual groves including information that might assist in monitoring the actual GHG removal. This allows us to get the same information that a Quantifier might get on a non-quantification visit (i.e. the annual visit) by asking members and their neighbors about changes, at a more sustainable cost. The ideal schedule for Cluster meetings is one per month, increasing the frequency of opportunity to learn about changes at the grove level.</p>	<p>The deviation is within the permissible limits of the applied methodology and does not impact the monitoring of the emission reductions significantly. Rather the approach was an internal goal of TIST which was not practically implantable due to logistical constraints and now the cluster approach replaces the annual quantification. The verification team has through onsite visit, observations and interviews with both cluster servants and farmers identified this approach to be acceptable and implementable.</p>

Not Addressed	<p>Removing Project Activity Instances: While it was expected that there would be loss of trees from the PD due to harvest, etc. the loss of PAs was not addressed. When a member or Small Group quits or harvests their trees, or if a PA is found to fall within one of the “remove” categories I through v in section 2.1, above, they are no longer active in the PD. The name of the grove is kept on the monitoring spreadsheet (Appendix 11), the reason for the removal is given in the “Status V2” column of the “PA Summary” worksheet of Appendix 11, and the carbon sequestered from the PA is zeroed out. By zeroing the carbon, all of the carbon credits previously issued from the PA are replaced.</p>	<p>The deviation is acceptable as the loss of the PA has occurred due to valid reasons which are described in the monitoring report. Also it is observed that as per policies of TIST, the PAs are removed and the status of the PAs is indicated in the worksheet, Appendix 11. The carbon is taken as zero and is not counted.</p>
Upgradation of CCB version	<p>Since this PD reflects the addition of new instances, this PD is being submitted under the third edition of CCB. The second edition of the CCB on which the validation was done did not contain this provision.</p>	<p>The addition of new instances is as per requirements of CCB version 03.</p>

As explained above, these changes are minor corrections which do not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario of the project.

**3.4 Minor Changes to Project Description**

No minor changes to project description were found in this monitoring period

**3.5 Grouped Project**

The steps taken to validate the inclusion of new project areas and communities into the (grouped) project, included the following:

Eligibility criteria for new projects	Assessment of verification team
A total of 1,936 new project activity instances have been added to the project in this verification period.	The verification was done by means of document review to confirm the number of new instances added.
The project zone maps have been updated to include locations of the new project areas and communities	The submitted zone maps have been verified from the geo reference file which displays the landsat image in which the new locations have been updated.
The new project areas and communities have compiled with the stakeholder identification and analysis process.	The stakeholder identification process set out in the project description is verified from the local stakeholder consultation meetings held and site visit observations.
Conformance of the new project activity instances, project areas and communities with the eligibility criteria set out in the project description.	The site visit observations and document review verified that the new project activity instances confirmed with the eligibility criteria set out in the project description and limits the new instances to the following districts of Tamilnadu: Tiruvannamalai, Thiruvallur, Thiruthani, Vellore and Villupuram. Also Any instances that may be added in the future has been indicated to be limited to the defined area which is India. The new instances and their communities which listed in the Grove Summary worksheet of Appendix 04b have been reviewed and it was further indicated by the PP that identification of communities to be added in future verifications would be limited to this area.
Conformance of the new project areas and communities with the scalability limits set out in the project description.	The measures specified in the project description have been applied to all the new instances added. Each new instance shall be and is treated in the same manner as the original instances and in accordance with the verified PD. An instance is limited to one percent which for a 30 year project is 4,800 tonnes.
Actions taken to mitigate risks that may result from adding project areas and communities.	Risk assessment is verified to be in accordance with the VCS requirements based on the risk analysis document submitted.
Changes to the project's governance structures, and any changes to roles and responsibilities that may result from the addition of new project areas or communities.	The projects governance structures is verified to not have changed from the previous validation and verification and is thus valid for this addition of new instances.
Sampling process for validation of new project activity instances, project areas and communities.	The sampling process has been verified to be in accordance with TIST procedures and methodology requirements. Quantifiers counted every tree in each discrete project area. Counting each tree is 100% sampling and provides greater than 10% precision at the 95% confidence level. Up to 20 circumference readings for each strata in a project area were taken and archived, to develop a localized database of growth data by strata. This data provided the circumference data for each stratum. This sampling exceeds the 10%

	precision at the 95% confidence level required by the methodology.
Quality and completeness of evidence, data and documentation relating to the new project activity instances, areas and communities.	Quantifiers counted every tree in each discrete project area. Counting each tree is 100% sampling and provides greater than 10% precision at the 95% confidence level. Up to 20 circumference readings for each strata in a project area were taken and archived, to develop a localized database of growth data by strata. This data provided the circumference data for each stratum. This sampling exceeds the 10% precision at the 95% confidence level required by the methodology.

Further the newly added instances have been verified to meet the requirements related to the baseline, additionality and monitoring aspects as indicated in the VCS verification report for VCS 005 and VCS 006. Hence it is the opinion of the assessment team that the inclusion of the new project activity instances, areas and communities are valid and meet the requirements as per the CCB PDD.

#### 4. VERIFICATION FINDINGS

##### Summary of Project Benefits

##### Climate Benefits

The project has estimated 103,565 ex-post tonnes total gross reductions under VCS Standard during this period.

##### Community Benefits

1,936 new TIST members have been added as part of the new instances and the total cumulative number is 5,628 members. The local employment status indicates overall improvement as direct employment increased from 12 staff members in the last verification period to 24 this period (13 full time and 11 part-time staff) an increase of 12 people. The total carbon payments in TIST India are calculated as \$131,751 in this period compared to \$65,239 in the last verification period, which is a significant increase. Monetized benefits from CF, fruits, nuts, fodder, firewood have also recorded an increase in this period. Capacity building initiatives have been initiated and training in subjects such as conservation farming, nursery development reforestation, climate change and biodiversity

##### Biodiversity Benefits

The project comprises of 2,216 cum hectares (1,545 hectares corresponding to new areas this period) in which there are 1,421,063 indigenous trees (820,909 indigenous trees added this period). Exceptional Community Benefits as confirming to Gold Level have been demonstrated as the project has net positive impacts on community in a poor area. Survey results show that participants experience a range of economic benefits and positive social impacts, regardless of socioeconomic status, gender or part of more vulnerable groups. The average benefits are \$609 per TIST member and \$649 for vulnerable members for this verification period.

The information provided is in line with the requirements related to monitoring of the data and has been identified accordingly. The achievements reported have been verified based on information provided in the monitoring report.

#### 4.1 General

##### Implementation Status (G1.9)

Following aspects were assessed according to the requirement of Section G.1.9:

The current validation and verification have not identified existence of any material discrepancies between project implementation and the project description. Compared to the previous period, there have been no material changes to the implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system except for a minor deviation, which does not affect the overall monitoring or results. The project start date is January 1, 2004. The CCB project life is 30 years. The GHG crediting period is 50 years, with the option of renewal. A number of Gantt Charts indicate the timing of events for the project – already completed and planned such as:

- Main planting schedule (project).
- Replacement planting schedule (project).
- Monitoring (project).
- Verification (project).
- Thinning (project area).
- Fruit and nut harvest (project area).
- Deadwood harvest (project areas).

It was verified that there the information provided for this indicator in the project zone has been updated for the current period.

The project is currently under VCS certification and additionally certified under CCB. The GHG emission reductions or removals generated by the project have not become included in any other emissions trading program or any other mechanism that includes GHG allowance trading. The project has not received nor sought any other form of environmental credit, or has become eligible to do so since validation or previous verification. The project also has not participated or been rejected under any other GHG programs since validation or previous verification.

There have not been any previously validated methodology deviations, project description deviations, and minor changes to the project description (each verification report must contain an exhaustive list of all deviations or changes applied to the project). It has also been verified that overall the project has been implemented as described in the project description.

### **Risks to the Community and Biodiversity Benefits (G1.10)**

As inferred in the PIR and PDD this is unchanged from the previous validation and the assessment was done as follows:

1. Risks due to the uncertainties of the carbon market is mentioned referring to the acceptance of credits from AR projects in future
2. Risk of farmers leaving the program is also mitigated as there are thousands of farmers who have joined the programme which continue to grow
3. Natural risks such as drought, pestilence and fire are mitigated by the fact there are thousands of individual project areas spread over thousands of square kilometres and the loss is not significant.

A risk analysis for the PIR period was conducted for the project using AFOLU tool specified by VCS and the risk was verified by EPIC indicating a low level of risk to project. The risk assessment is further added to this report as Appendix B. Assessment was done by review of the PIR, MR and PDD submitted, site visit interviews and document review.. Findings were raised based on which the information pertaining to the indicator was adequately addressed. As part of the VCS requirements, a risk analysis was conducted. Based on the VCS tool, this project has a risk of 1.0, which is exceptionally low and verified to be appropriate.

### **Community and Biodiversity Benefit Permanence (G1.11)**

As inferred in the PIR and PDD this is unchanged from the validation and the following information is provided as below:

- Training in the benefits of specific tree species for their nuts, citrus trees for their fruits
- Training in the maintenance of a sustainable woodlot not limited to project lifetime.
- Training in the benefits of biodiversity include more productive soil, return of edible indigenous plants, enhanced area ecotourism, and return of native wildlife that is useful to them personally (e.g. bees).

These benefits apart from the carbon revenues have helped in providing long lasting measures beyond project lifetime. Assessment was done by review of the PIR, MR and PDD submitted, site visit interviews and document review. Findings were raised based on which the information pertaining to the indicator was adequately addressed. Refer Appendix 1 for details.

### **Stakeholder Access to Information (G3.1- G3.3)**

TIST consults community leaders, village heads/village leaders, local NGOs and local government officials to determine if there is an interest in the program. If there is an interest, TIST holds a public seminar to present the program, answer questions, address concerns and receive comments. This is followed by regular and ongoing meetings where the public is invited to attend. TIST representatives have met with numerous State, District and Village officials seeking comment and showing them the project. In addition to the meetings, information about TIST is disseminated by word of mouth; and direct contact with community leaders and government officials.

At the Small Group level, member farmers meet with TIST representatives regularly at node meetings, where they have an opportunity to ask more questions and make more comments. Since one of TIST's main focuses is adopting best practices, these are forums to review what is working about the program and how it can be improved. The result of this stakeholder process has led to numerous invitations for TIST to come to new villages and numerous positive comments about TIST. There have been no negative comments received. Based on the comments and responses above, no changes were necessary for the project.

The information presented is verified to be sufficient for the indicator. Assessment was done by review of the PIR, MR and PDD submitted, site visit interviews and document review. Findings were raised based on which the information pertaining to the indicator was adequately addressed. Refer Appendix 1 for details.

### **Stakeholder Consultation (G3.4 – G3.5)**

TIST announced the intent to verify this project in an email to non-TIST stakeholders on 16 March 2018. The project also held a public meeting in Vandhavasi on 21 March 2018 and by public notice in a major Newspaper. There are 19 Nodes and each holds multiple meetings each year. In 2017, 180 meetings were held in which they receive training and information about TIST and have opportunity to ask questions and provide input and feedback. This mechanism serves as stakeholder consultation channel.

Comments on behalf of CCB were solicited. In addition, a publicly accessible webpage that lists and contains all of the documents associated with this and the associated VCS project are available. It includes the PDDs, PIRs, maps, KML files, risk reports, spreadsheets, monitoring reports, verification reports and appendices. No negative comments were received during the comment period.

The e-mail to stakeholders was also marked to EPIC. Hence, the requirements relating to the public commenting have been sufficiently addressed as relevant for the indicator. Assessment was done by review of the PDD and PR, e-mail to stakeholders and publically available documents (Exhibit 29).

### **Stakeholder Participation in Decision-making and Implementation (G3.6)**

TIST consults community leaders, village heads/village leaders, local NGOs and local government officials to determine if there is an interest in the program. If there is an interest, TIST holds a public seminar to present the program, answer questions, address concerns and receive comments. This is followed by regular and ongoing meetings where the public is invited to attend. TIST representatives have met with numerous State, District and Village officials seeking comment and showing them the project. In addition to the meetings, information about TIST is disseminated by word of mouth; and direct contact with community leaders and government officials.

At the Small Group level, member farmers meet with TIST representatives regularly at Node meetings, where they have an opportunity to ask more questions and make more comments. Since one of TIST's main focuses is adopting best practices, these are forums to review what is working about the program and how it can be improved. The result of this stakeholder process has led to numerous invitations for TIST to come to new villages and numerous positive comments about TIST. There have been no negative comments received. Based on the comments and responses above, no changes were necessary for the project. The information presented is verified to be sufficient for the indicator.

TIST is gender sensitive and 37% of our members are female who receive the same training and are eligible for the same carbon payments. In addition, to encourage women in villages, TIST organized a Women's Day Celebration in 2016 in four villages where TIST is active in which 210 women participated. The villages were Kesavarajakuppam, Chinnamudipalli, TT Kandigai, Gollalakuppam of Pallipattu Taluk, Tiruvallur District.

### **Anti-discrimination (G3.7)**

The sexual harassment policy, and non-discrimination policy, is posted on the TIST Mobile website, where it is accessible by members with a mobile phone. A member that has been found to discriminate or sexually harass can be removed from TIST. During this assessment no such incidents were reported. A TIST worker that discriminates or sexually harasses can be dismissed. The information presented is verified to be sufficient for the indicator. Assessment was done by site visit interviews and document review.

### **Stakeholder Feedback and Grievance Redress Procedure (G3.8)**

The grievance policy (Exhibit) is available on TIST Mobile, shared at the Node meetings and with the staff. It was verified that TIST has not received any formal grievances during this verification period. Assessment was done by review of the PIR, MR and PDD submitted, site visit interviews and document review. Findings were raised (refer Appendix 1) and based on the reply the information pertaining to the indicator was adequately addressed.

### **Worker Relations (G3.9 – G3.12)**

The following assessment was done to verify the project proponent has taken actions and implemented measures to ensure that the relationship between the project and workers meet the requirements of G3.9 – G3.12.

#### Build the capacity of the communities through job training and employment.

The PIR summarises the local expertise and experience TIST. Almost complete localisation is achieved as both TIST quantifier and managers are Indians (12 Quantifiers) and are adequately trained at the various annual seminars and events organised. Hence it is verified that the information provided is sufficient to address the indicator.

Ensure people from the communities are given an equal opportunity to fill work positions.

The PIR describes that the 12 Quantifiers are TIST farmers trained to use the monitoring system and hired based on ability, not gender, religion or tribal affiliation. TIST farmers are trained as trainers. TIST holds regular training seminars and makes a concerted effort to make sure attendance has a gender balance. Almost 37% of the membership is by women and during 2014-2016. 20 women were recruited as paid volunteers.

Hence it is verified that the information provided is sufficient to address the indicator.

Worker rights laws and regulations:

This ensures that the project is in compliance with all relevant laws and regulations regarding worker's rights and workers are informed of their rights. The TIST india: Employee rights (Exhibit 36) was reviewed.

The relevant host country laws as applicable for the project are:

- The Employment Act, 2006
- National Social Security Fund Act, Cap 222

Most of the Indians working for TIST are aware of their rights before starting employment. However CAAC uses an employment contract that was vetted by local counsel that reiterates the more important parts of the relevant employment law such as salary, types of leave, rest days and termination. Quantifiers are contracted independently and their contract has been reviewed by local counsel. Candidates are given the contract to read well in advance of signing and given the opportunity to ask any questions about the terms.

Hence it is verified that the information provided is sufficient to address the indicator as TIST operations is in conformance to applicable laws and regulations.

Occupational worker safety

Workers are informed how to minimize risk by means of the workers safety policy (Exhibit 76). TIST has a safety manual for Quantifiers which addresses the occupational risks sufficiently. Hence it is verified that the information provided is sufficient to address the indicator.

Assessment was done by review of the PIR, TIST documents on employment policy, agreement templates, recent appointments, site visit and interviews.

### **Management Capacity (G4.1 – G4.3)**

The following assessment was done to verify the governance structure and whether the project proponent has taken actions and implemented measures to ensure the capacity exists to implement the project over the project lifetime.

- Clean Air Action Corporation (CAAC) is a for profit US corporation that manages the GHG component of TIST. CAAC is TIST's largest contributor, provides technical assistance and uses its host country subsidiaries to manage operations.
- TIST Tree Planting India Private Limited (TIST India), an India subsidiary of CAAC. It is the operator of TIST India and the contractor with the Small Groups for greenhouse gas credits.
- The project demonstrates the project possesses or is acquiring the key technical and management skills required to implement the project successfully. The PIR summarises the local expertise and experience of TIST. Almost complete localisation is achieved as both TIST quantifier and managers are from India and are adequately trained at the various annual



seminars and events organised. Hence it is verified that the information provided is sufficient to address the indicator.

- The project demonstrates the financial health of the implementing organization is adequate to support project implementation, and in the case of grouped projects, the ability of the implementing organization(s) to provide adequate financial support to new project areas included in the project at this verification event is also verified. The process of financial funding for the project is summarised in the PIR. Confidential internal financial projections indicate the rate of TIST tree growth and sequestration is sufficient to provide enough credits over the life of the project to fund the project. The financial plan and the prices received in the carbon market for the credits generated indicate that the project is on target to achieve financial stability and sustainability. In addition, TIST has several issued VCUs in inventory and over the next 6 months it is expected to create several others under VCS. I4EI has provided sustainable development funding that offsets much of the project cost, obtaining funding through USAID (Kenya and Tanzania) and private donors. The fact that TIST is in its 18th year further demonstrates its longevity.
- The PIR and PDD affirm that the Project Proponent, or any of the other entities involved in project design and implementation, are not involved in, or are not complicit in any form of corruption such as bribery, embezzlement, fraud, favoritism, cronyism, nepotism, extortion, or collusion. CAACs top management, CEO and Vice President are active in the day to day operation and are very familiar with the financial aspects of CAAC and TIST and are aware of no instances of the aforementioned types of corruption within either organization. The USAID grants also contained prohibitions of these types of corruption. USAID has completed an audit of TIST Kenya in 2016 and found no evidence that these have occurred. TIST India is audited annually by an independent professional auditor and no such issues have been observed.

Hence it is verified that the information provided is sufficient to address the indicator. Assessment was done by review of the PIR, TIST documents, site visit and interviews

#### **Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)**

There were no commercially sensitive information except the financial statements (exhibit 07) that were reviewed during this assessment.

#### **Rights Protection and Free, Prior and Informed Consent (G5.1-G5.5)**

The PIR describes the land use practices and legal property rights which is in line with the description in the PD. All the PAs (90%) are owned by the farmers by means of registered deeds which is in accordance with the legal framework in India. The Small Groups own the trees that they plant together and grant the rights to all carbon associated with TIST to Clean Air Action Corporation (CAAC) under a “GHG Contract.” Under the agreement the members affirm their ownership or rights to the land designated as project areas. The current land is used for agricultural purposes.

The PIR describes that TIST takes place on the existing land of farmers and their families whom participate voluntarily. CAAC enters into contracts with the Small Group members. In the contract, the members attest in that they have the rights to plant on these lands.

Hence it is verified that the information provided is sufficient to address the indicator. The PIR infers that CAAC and TIST do not own or lease any of the project lands. Participation is strictly voluntary on lands owned by farmers. CAAC has no authority or desire to relocate any of the members or land owners.

Hence it is verified that the information provided is sufficient to address the indicator that the following is being complied with:

- There is no change in the land use and legal property rights in the project zone since the validation of the project and the same applies to newly added areas.
- Existing property rights are recognized, respected and supported
- The project does not encroach uninvited on private, community or government property.
- The free, prior and informed consent has been obtained of those whose property rights are affected by the project.
- Appropriate restitution or compensation has been allocated to any parties whose lands have been or will be affected by the project.
- Project activities do not lead to the involuntary removal or relocation or property rights holders from their lands or territories, and does not force them to relocate activities important to their culture or livelihood.
- Actions have been taken, if necessary, to reduce illegal activities that could affect the project's impacts.
- No activities are undertaken by the project that could prejudice the outcome of an unresolved dispute relevant to the project over lands, territories and resources in the project zone.
- No ongoing or unresolved conflicts or disputes over rights to lands, territories and resources have been identified for this validation and verification.

Hence it is verified that the information provided is sufficient to address the indicator. Assessment was done by review of the PIR, TIST documents, GHG contracts, site visit and interviews

#### **Legal Status (G5.6)**

TIST is subject to laws and regulations of India as applicable which are listed below:

- National Forest Policy for India, 1988 sets a target of 33.33% forest cover. The policy suggests that afforestation on degraded wastelands could be an important component of achieving this goal.
- Other policies regarding forests and land include The Tamil Nadu State Forest Act of 1882, The Wildlife Protection Act of 1972, and the Forest Conservation Act of 1980.

Hence it is verified that the information provided is sufficient to address the indicator. Assessment was done by review of the PIR, TIST documents (exhibit 01 and 02), site visit and interviews

#### **Approval (G.5.7)**

There are no approvals necessary for a farmer to plant trees on his/her lands. However, TIST has engaged local forest and environmental offices to seek their approval and received broad approval and support. The Tamil Nadu forest department has recognized TIST for its work.

#### **Right to claim Benefits (G.5.8)**

The Project Proponent has a GhG contract (exhibit 03) with all of the Small Groups that covers all of the Project Areas. The contract gives the rights to the carbon to the Project Proponent. This has been verified for the both the existing PAs and new areas.

#### **Other programs and double counting (G.5.9)**

This PDD is associated with the VCS PD "TIST Program in India VCS-001" and all carbon credits shall be issued by VCS. The Project Proponent has stated that it is not registering these credits with any other entity and that the Host country is not making any claim to them. In addition, the project is not claiming any tradable credits for community or biodiversity credits.

#### 4.1 Climate

- The project meets the requirements for validation under VCS. The VCS validation document for the original Project Areas is the original PD in line with the VCS requirements and the validation of the new Instances (Project Areas) is in the Monitoring Report.
- This CCB project is a subset of the VCS project, TIST Program in India VCS-001 and a comparison of both indicates that both the VCS and CCB activities incorporate the same Project Areas, has the same Proponent, has the same project start date, uses the same activities and has the same without-project scenario.
- The VCS validation and verification report has been verified to conform to VCS requirements. The VCS verification reports, submitted along with this CCB report may be referred for details.

#### Without-Project Estimated Greenhouse Gas Emissions (CL 2.1)

Based on VCS PD-IN-001 and the CDM methodology AR-AMS0001 Version 06: Simplified baseline and monitoring methodologies for small-scale A/R CDM project activities implemented on grasslands or croplands with limited displacement of pre-project the without project, estimated GhG Emissions inside the Project Area is 18,571 tonnes CO<sub>2e</sub> over the 30 year period. There is no change in this estimate during this validation and verification.

#### Net Positive Climate Impacts (CL 2.2)

Based in the VCS PD, the net ex-ante removals are 1,844,486. This is verified from the VCS report which demonstrates net positive climate impact during this period.

#### 4.2 Offsite Climate Impacts ('Leakage') (CL 3.1, 3.2,3.3)

There is no change in the description for leakage in both the original and newly added instances.

For ex-post leakage, the methodology requires the monitoring of cropland, domesticated grazing animals and domesticated roaming animals displaced by the project activity during the first crediting period. If the indicators were less than 10%, leakage is set to zero. The monitoring results provided in the PD indicated cropland and grazing leakage is below the thresholds that require further monitoring. Hence the ex-post leakage is zero. Leakage mitigation is not necessary as there are no leakages.

#### 4.3 Climate Impact Monitoring (CL 4.1, 4.2)

The monitoring plan is based on the validated and verified VCS PD, which in turn is based on CDM methodology AMS0001. Further the implementation of the monitoring plan was verified during the VCS certification submitted along with this CCB report. There are no significant deviations in the monitoring plan, except those listed in the project deviations section. Hence overall the climate monitoring plan indicated in the PDD is in line with the methodological requirements.

The verification of all the data ex-ante and data ex-post (monitoring parameters) including data measurement, data transfer, data archiving, aggregation and calculation of baseline emissions, project emissions and leakage emissions are tabulated below.

<b>Parameter</b>	<b>Source considered</b>	<b>Conclusion by the verification team</b>
<b>Ex- ante</b>		
<b>Location of project area</b>	As verified from the TIST website and VCS project website based on Appendix 11 a/b, summary worksheet.	The location of the project area is verified to be consistent with the project design. In the samples visited, the GPS reading taken were found to corroborate with the data made available.
<b>Boundary of project area</b>	KML file, Appendix 3a/b	The boundary of the project area is verified to be consistent with the project design. In the samples visited, the GPS reading taken were found to corroborate with the data made available.
<b>Area of project area</b>	Appendix 11 a/b, summary worksheet.	The area of the project was verified from the available data and confirms with the project design. In the samples visited, the area surveyed were found to corroborate with the data made available.
<b>Ownership of project area</b>	Sample of ownership records.	The ownership records were verified to confirm with the available data. In the samples visited, the interview with the farmers confirmed the same.
<b>Baseline trees</b>	Previous validation and verification report and project design and monitoring reports.	The baseline tree data was verified from the earlier monitoring and verification reports and was found to be in conformance with the project design
<b>Baseline tree circumference</b>	Appendix 04 a/b	The data was verified to be in conformance with project design
<b>Baseline strata</b>	Appendix 04 a/b – grove summary worksheet	The data was verified to be in conformance with project design
<b>Project trees</b>	Appendix 04 a/b – grove summary worksheet	The data was verified to be in conformance with the monitoring data and was further verified with the samples visited
<b>Ex- post</b>		
<b>Number of trees</b>	Appendix 11 a/b –Ex post strata	The data was verified to be accurate with errors within the acceptable limits. The samples visited were also subject to circumference measurement to both cross check the field measurement practices and the recording which was found to conform with the verification plan and TISTs procedures.
<b>DBH</b>	Appendix 11a/b- circ worksheet	The data was verified to be accurate with errors within the acceptable limits. The samples visited were also subject to circumference measurement to both

		cross check the field measurement practices and the recording which was found to conform with the verification plan and TISTs procedures.
<b>Total CO2 sequestered by the trees</b>	Appendix 11 a/b –Ex post strata	This is verified to be calculated based on allometric equations for each species. Average biomass of each tree/stratum is multiplied by number of trees in each stratum. Biomass is converted to CO <sub>2e</sub> and the CO <sub>2e</sub> of the stratum is totalled.

The PP submitted emission reduction calculation in a excel sheet. The excel sheet is clear, un-protected and easily viewable. The calculation in the excel sheet is verified and found be correct. The methods and formulae set out in the project description for calculating baseline emissions, project emissions and leakage are correctly followed in the monitoring report and ER calculation sheet.

All the values are provided in the MR and ER calculation sheet are cross verified with its sources and confirmed no manual transposition errors between data sets have occurred. Also the consistency of values within MR is checked and found to be OK.

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

**4.4 Quality of Evidence to Determine GHG Emission Reductions and Removals**

The GHG removals for the project reporting period are based on forest inventory measurements and calculation procedures and factors that have been assessed by the verification team, as described in Section 4.4.1 of this report. The verification team has attained a reasonable level of assurance that these measurements and procedures, including the internal quality control measures such as check plots, were designed and have been implemented to the highest level of quality. The verification team interviewed personnel from TIST relevant to the project and confirmed their qualifications and expertise. Further the QA/ QC procedures adopted by TIST for the monitoring of the GHG emission reductions were found to conform with the project design and monitoring plan which ensured a high degree of data reliability.

The verification team reviewed the Non-Permanence Risk Assessment provided at project validation. There has been no change regarding the status or applicability of any of the risk factors since project validation, including political factors, socio-economic factors, environmental factors, or factors relating to implementation of project activities. The non-permanence risk rating is 1.0 and the required buffer is 10%. The verification team therefore concludes that the default minimum 10% risk rating is appropriate for the current reporting period.

Overall, the Project meets the precision required by the methodology. In addition, the issue regarding one-year-old trees was addressed by assuming one-year-olds had zero biomass and were excluded from the calculations. The remaining issues of concern were shown to be both individually and cumulatively below the 5% materiality threshold during this verification.

**Dissemination of Monitoring Plan and Results (CL4.2)**

The parameters as monitored for this period has been assessed based on the process described in section 4.4.1. Further the operational processes for monitoring the actual GHG removal by the sinks is described in the VCS MR. TIST Quantifiers visit each grove, at minimum, once every five years, to count trees and collect circumference, GPS, and other data. Quantifiers transmit the monitoring data via the

Internet to the TIST website, where it is managed by CAAC. CAAC oversees the data and conducts QA/QC reviews. Feedback is provided to the TIST's Quantifiers and office staff. CAAC is responsible for tabulating carbon stocks. The TIST Data System stores all of the current and archived data. CAAC managers use customized reports to analyze the data and look for trends, missing data or obvious errors. TIST managers visit selected project areas and observe quantifications and audits. Quantifiers are also audited by the TIST India staff. Hence it is verified that the information provided is sufficient to address the indicator. Assessment was done by review of the PIR, TIST documents, Excel calculation sheet Appendix 11 a,b, site visit and interviews.

**Optional Gold Level: Climate Change Adaptation Measures (GL1.3)**

Not Applicable for the PDD and PIR

**Optional Gold Level: Climate Change Adaptation Benefits (GL1.4)**

Not Applicable for the PDD and PIR

**4.5 Community**

**4.6 Without-Project Community Scenario (CM 1.1, 1.2, 1.3)**

The CCB PDD version 2.0, describes Community Information, Description of Communities in Project Zone, High Conservation Values Areas Related to Community Well-being and Changes in the Well-being without Project Land Use Scenario as similar to the originally validated PDD in 2013 and the current site visit indicated the same status to exist which is reflected in the unchanged description in the PDD version 2.0.

**Community Impacts (CM2.1)**

The PDD and PIR list a number of positive community impacts which might not have occurred in the absence of the project and which are actual direct benefits. The impacts listed are similar to the validated project design and there are no changes. During this verification, there was an increase across the indicators as summarized below:

1. New job opportunities - Direct employment went from 12 staff members in the last verification period to 24 this period (13 full time and 11 part-time staff) an increase of 12 people
2. Carbon payments to members - TIST benefits thousands of Small Group members by providing a new source of income. Small Group members are paid for each tree they plant and maintain. When the project becomes self-funding from the sale of carbon credits, they will receive 70% of the net carbon revenues. In this verification an increase in total payments was observed compared to the previous verification.
3. Members receiving carbon payments - Number of members receiving carbon payments increased from 2,517 (1,081 women and 1,436 men) in the last verification period to 4,580 (1,867 women and, 2713 men) in this period.
4. Small Group Structure - Number of Small Groups increased from 452 in the last verification period to 1,144 in this period, an increase of 692 groups.
5. Fruits and nuts from tree plantings - Number of fruit and nut trees went from 75,247 in the last verification period to 219,326 in this period, an increase of 144,079.

6. Wood products and limited timber from trees - Number of members benefiting from wood products increased from 598 in the last verification period to 1,294 in this period.
7. Natural medicines, insecticides and other benefits from trees - Number of medicinal trees went from 1,752 in the last verification period to 4,608 in this period, an increase of 2,856. Some of the trees, such as the neem (*Azadirachta indica*) and neli (*Phyllanthus emblica*), provide other non-wood related benefits. The neem is a medicinal tree and source of natural insecticides.
8. Capacity building on agricultural improvements, business skills, nursery development, and reforestation - Number of members benefiting from capacity building went from 2,599 in the last verification period to 5,628 in this period, an increase of 3,029.
9. Small Groups organize to deal with other social and economic problems such as famine and AIDS - Number of members benefiting from social and economic training went from 2,209 in the last verification period to 4,784 in this period, an increase of 2,575.
10. Improved beauty of the landscape - Number of members benefiting from improved beauty of the landscape went from 3,888 in the last verification period to 6,222 in this period, an increase of 2,334.

Hence it is verified that the information provided is sufficient to address the indicator. Hence it is verified that the information provided is sufficient to address the indicator. Assessment was done by review of the PIR, TIST documents, site visit and interviews.

Findings were raised based on which the information pertaining to the indicator was adequately addressed. Refer Appendix 1 for details.

### **Negative Community Impact Mitigation (CM2.2)**

During this assessment no significant negative community impacts have been identified for the validation and verification.

### **Net Positive Community Well-being (CM2.3)**

A number of initiatives have been ongoing as part of positive community impact as listed in Section CM1.2 which itemizes the positive benefits of TIST programs and trainings. Many of these programs have been covered in the Gold Level community survey (Section 4.4.1) and monetized. It demonstrated that the program had an average benefit per person of over \$609 per person over the verification period, Hence it has been demonstrated that the project has a net well-being impact compared to the “without project” land use scenario

### **Protection of High Conservation Values (CM2.4)**

The PIR describes that the project does not have a negative effect on the HCV areas as it has been implemented on private lands that have been under human habitation and agriculture for generations. Further, the activities under this program does not cause displacement or move activities to the HCV areas. Hence it is verified that the information provided is sufficient to address the indicator.

### **Other Stakeholder Impacts (CM3.2-CM3.3)**

There will be more local food from TIST implemented Conservation Farming and fruit and nut trees which demonstrate increased food security. Further benefits from the node meetings and trainings are Conservation Farming, successful tree planting, construction tree nurseries, building and using more fuel efficient stoves, indoor cooking pollution, use of trees for stabilizing soil and water courses, using

mosquito nets, increase of locally sourced fuel wood. All these impacts summarize to a positive net impact on other stakeholders.

The information presented is verified to be sufficient for the indicator. PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed.

### **Community Monitoring Plan (CM4.1, CM4.2, GL 1.4, GL2.2, GL2.3, GL2.5)**

The PDD and PIR list parameters for community monitoring which is a part of the monitoring plan. Further the Quantifiers collect all field level information from the cluster meetings and the records are available at the administrative level. In addition, more program components, such as GPS tracts of all the Project Areas, are being obtained in the climate change monitoring plan.

The information presented is verified to be sufficient for the indicator. The indicators which have quantified for this monitoring period are as follows:

- Number of community members in TIST India:
- Number of Small Groups in TIST India:
- Number of community members adopting natural resource management practices
- Number of community members with greenhouse gas agreements with TIST
- Total payments to community for the period
- Number of TIST tree groves planted by community members.
- Number of person-training sessions on TIST and TIST components.
- Number of live trees planted by TIST Small Groups in India
- Number of fruit or nut trees in TIST PD for this period
- Number of eucalyptus trees in TIST PD
- Number of people employed by TIST or under contract to deliver services

Monitoring related to Gold level indicators is summarized as follows:

- Monetized benefits to average members (\$609 per person during verification period).
- Monetized benefits to vulnerable members (\$649 per person during verification period).
- Monetized benefits to female members (\$993 per person during verification period).
- Negative impacts identified by members (9% of sample during verification period)

PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed. Findings were raised based on which the information pertaining to the indicator was adequately addressed. Refer Appendix 1 for details.

### **Community Monitoring Plan Dissemination (CM4.3)**

All of the CCB and VCS documents, including the monitoring data, are made available to the public on a dedicated web page. Stakeholders have been informed of this when they receive the email advising them of the public meeting, at the public meeting, through reading this report that will be made public on the CCB project page and through reading the VCS registry posting. The information presented is verified to be sufficient for the indicator.

### **Demonstrate Smallholders Rights the Project Area (GL 2.1)**

There was no change in the description of this indicator as described in the validated PDD as each TIST member has signed a Small Group "Carbon Credit Sale Agreement" with the Project Proponent, wherein they attest to having rights to the Project Areas.



### **Optional Gold Level: Short-term and Long-term Community Benefits (GL2.2)**

Though net positive benefits have been demonstrated at the community level based on the survey conducted in 2012 in India. The survey was conducted on 40 random TIST members as indicated in Exhibit 44.

The four main topic areas of the survey were:

1. Demographic/basic information (including literacy, income);
2. TIST membership and participation information (including barriers to participation);
3. benefits from TIST activities (economic, environmental, and social, quantitative and perceptual) and negative impacts; and
4. Conservation Farming and food security.

The survey results indicated that the income level for abject poverty varies between US\$1.00 per day and US\$2.00 per day, which indicates that most of the members of TIST are poor. The survey also indicated that 53% of the respondents make less than 1,875 INR (US\$29) per month.

Both these survey results indicated that the project is pro poor and provides exceptional community benefits across a range of criteria by means of trainings, social awareness and cash benefits as indicated in the comparative table in section GL 2.2 of the PIR and PDD. Further 21 members in the survey were identified as vulnerable based on the monthly income of less than 1875 INR as being vulnerable and Table 4.4.1d of the PIR indicated the benefits to the vulnerable members. PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed. The information presented is verified to be sufficient for the indicator.

### **Optional Gold Level: Smallholder/community member Risks (GL2.3)**

Some of the perceived risks as indicated in the PIR and PDD are:

- The farmers could use too much of their farm land for tree planting and jeopardize their food security.
- They could spend money on seedlings but have their trees die. We do not want them spending money on seedlings.
- Their trees could die. Early mortality is the biggest problem and it requires that the farmers follow the Conservation Farming method for their trees.

These risks are largely avoided by training the farmers in good farming practices.

### **Optional Gold Level: Marginalized and/or Vulnerable Community Groups (GL2.4)**

Apart from the survey indicating TIST to be pro-poor, the results show that the identified vulnerable households based the surveys experienced a range of benefits from sales and savings. The vulnerable member had received \$1,688 over the life of the project and \$649 during the verification period. Further the project activities demonstrated a net positive impact on the well-being of female members of TIST. Calculations based on a member survey indicate that women benefit more than the average member and vulnerable member. The average woman has received \$2,853 over the life of the project and \$993 during the verification period. PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed. The information presented is verified to be sufficient for the indicator.

#### **Optional Gold Level: Net Impacts on Women (GL2.5)**

The monitoring indicates that on comparing the benefits reported by the female members with the average received by all the members, it is shown that women received 163% of the benefits of the average member. Further, they come to Node meetings and have the same voice as any other member. They are in their own Small Groups and are entitled to equal status. The information presented is verified to be sufficient for the indicator.

#### **Optional Gold Level: Benefit Sharing Mechanisms (GL2.6)**

The benefits from this program are mutual as carbon credits are generated of which the project proponent is the beneficiary. In exchange, the farmers get a prepayment based on tree count and will ultimately receive 70% of the profits. The farmers maintain ownership of their land, the trees and the tree products. They get 100% of any firewood, fodder, fruits or nuts that come from the trees. They receive training in many life improving topics at no cost. They choose which program is best for them and keep all the benefits derived from their adoption. Hence the information presented is verified to be sufficient for the indicator.

#### **Optional Gold Level: Governance and Implementation Structures (GL2.8)**

The governance and implementation structure as defined in the PDD and PIR describes the management team based in the US, the local operations team based in India and the quantifiers and also the cluster members. The Director based at Chennai oversees his staff of Quantifiers, trainers and volunteers. All TIST India personnel are Indians from Tamil Nadu. Most are TIST farmers that have been trained as Quantifiers or trainers. The chain of governance and responsibilities has been verified by means of interviews and it is demonstrated that the requirements related to the indicator are met.

#### **Optional Gold Level: Smallholders/Community Members Capacity Development (GL2.9)**

The small holders are part of a Small Group which meet weekly for training, to share best practices, review the results of quantification, plant trees, tend nurseries, review the payment vouchers and work together on projects too big for one person. Rotating leadership is practised as everyone gets a chance. Hence it is demonstrated that the requirements related to the indicator are met.

### **4.7 Biodiversity**

#### **Biodiversity Changes (B2.1)**

PIR describes the historical scenario as grasslands or croplands on private lands owned by subsistence farmers. Natural wildlife populations were eliminated or driven off long ago and are currently restricted to transient animals. Hence the approach to improving biodiversity in the project was limited to planting new trees. Isolated woodlots with indigenous trees also improve the connectivity of wildlife habitat between natural forests. This second verification lists the following:

- 941,094 new trees this verification and overall project trees of 1,599,471.
- 1,545 hectares have been added during verification as project area and 1,529 hectares have been added with tree cover.
- PAs with trees are 1914 during this verification.

- 820,909 indigenous trees this verification and overall project trees of 1,41,063.
- 1,255 hectares have been added during verification as project area for indigenous trees.
- PAs with trees are 834 during this verification.
- In addition, there are 219,306 fruit and nut trees covering 672 ha. These provide a source of food and nectar for bees, birds, small animals living on, or around, the farms and larger animals when present.

PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed. Findings were raised based on which the information pertaining to the indicator was adequately addressed. Refer Appendix 1 for details.

### **Mitigation Actions (B2.3)**

Compared to the baseline scenario, the negative impacts on biodiversity are minimum. As such, the only negative impacts identified are species selection, for which mitigation actions are proposed. TIST activities do not take place inside those areas and TIST trees are being planted where deforestation has taken place.

### **Net Positive Biodiversity Impacts (B2.2, GL 1.4)**

The overall increase in the number of trees, the hectares of planted area and PAs, as listed in B.2.1 indicated that comparing the without-project scenario and with-project conditions, it has been demonstrated that the project has a net positive impact on biodiversity. The information presented is verified to be sufficient for the indicator. PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed

### **High Conservation Values Protected (B2.4)**

No HCVs are affected and as such TIST does not have a negative effect HCV areas. TIST activities do not take place inside those areas and TIST trees are being planted where deforestation has taken place.

### **Invasive Species (B2.5)**

As the farmers own the trees that they plant, the species are selected by the Small Groups based on their needs and the benefits, which they desire to obtain. As a result, numerous species and varieties have been selected. Table B1.3 of the PIR has listed the species present in the project areas. As per global database of invasive species *Psidium guajava* is classified as invasive species (exhibit 37) in Tamilnadu. There are 102,721 guava trees, out of 1.6 million project trees, or 6.4% which however add to the economic benefits and food security as it is one of the major fruit trees.

### **Impacts of Non-native Species (B2.6)**

Training, monitoring, and incentives are all structured to encourage farmers to plant diverse trees with diverse benefits. Because of all of these active steps taken to safeguard against deleterious environmental effects, negative impacts are not expected. The use of non-native species is left to the

choice of the farmers. Section 5.1.6 of the PIR lists the benefits of the non-native species such as *Acacia nilotica*, *Anacardium occidentale*, *Psidium guajava*, *Aniba rosaeodora*, *Citrus sinensis*, *Grevillea robusta*, *Macadamia spp.*, *Pouteria sapota*, *Swietenia mahagoni*, *Teclea nobilis*.

### **GMO Exclusion (B2.7)**

The Project Proponent has guaranteed that no GMOs have been used or will be used by the project to generate GHG emissions reductions or removals. Hence this requirement is not applicable.

### **Inputs Justification (B2.8)**

From the project description and site visit, it is verified that there are no adverse effects of any inputs used by the project. It is TIST's policy to not use chemical fertilizers and pesticides. Farmers are trained to make and use their own compost and to use dung. In addition, the cost of chemical fertilizers and pesticides is prohibitive. Also there is no generation of waste products. Fallen leaves are left to decay back into the soil. Fallen woody material, from twigs to trees, are consumed as fuelwood, or used as construction material.

### **Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Actions (B3.2)**

No negative impacts have been identified and therefore no mitigation is needed. The information presented is verified to be sufficient for the indicator. PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed.

### **Net Offsite Biodiversity Benefits (B3.3)**

There are no offsite biodiversity benefits identified during this period. Hence there are no net offsite biodiversity benefits applicable for this period.

### **Biodiversity Monitoring Plan (B4.1, B4.2, GL3.4)**

As per the PIR, the biodiversity monitoring plan is described to be in operation from 2002 and is being implemented with no deviations. Annual monitoring of each site is the goal and a minimum of every five years is achieved.

The following are the results of the Monitoring Plan:

- Number of trees: 1,599,471
- Total hectares of the project: 2,238.1
- Number of Project Area: : 2,200.6
- Number of trees and hectares by species (as per table 2.5 in PIR)
- Number of indigenous trees: 1,421,063
- Hectares of indigenous trees: 1,844
- Number of Project Areas with indigenous trees: 2,595
- Number of indigenous trees and hectares by species: (as per Table 2.1 in PIR)
- The area and location of each Project Area: PA summary worksheet

Overall the biodiversity monitoring plan is verified to be implemented in accordance to the validated project description. As there is no direct interaction with HCV areas, the monitoring is indirect. PDD and First Monitoring period PIR, current PIR, site visit interviews and document review were assessed.

### **Biodiversity Monitoring Plan Dissemination (B4.3)**

All of the CCB and VCS documents including the monitoring data have been verified to be available to the public on a dedicated web page. Stakeholders have been informed of this when they receive the email advising them of the public meeting, at the public meeting, through reading this report that will be made public on the CCB project page and through reading the VCS registry posting. The information presented is verified to be sufficient for the indicator. PDD and First Monitoring period PIR, current PIR, site visit interviews, Exhibit 14 and emails were assessed.

### **Threat Reduction Actions (GL3.4)**

This indicator is not applicable for this period.

## **4.8 Additional Project Implementation Information**

### **Optional Gold Level: Trigger Species Population Trends (GL3.3)**

This indicator is not applicable for this period.

### **Optional Gold Level: Effectiveness**

There is no additional project implementation information identified during the current period.

## **4.9 Additional Project Impact Information**

There is no additional project implementation information identified during the current period.

## **5. VERIFICATION CONCLUSION**

Clean Air Action Corporation has appointed EPIC Sustainability Services Private Limited to perform the Gap Validation and second periodic verification under the third edition of the CCB standards. The assessment covered the scope of the gap validation and verification of the net sustainable benefits achieved for the project titled “TIST Program in India, VCS-001” for the period from 13 November 2012 - 29-December-2017.

The project “TIST Program in India, VCS-001”, complies with the validation and verification criteria for projects set out in CCB Version 3. It has been verified that the project has been implemented in accordance with the validated project description and any subsequently validated changes. For the new instances added, the validation of which covers the scope of this audit, it has been verified that the project complies with the validation criteria for projects set out in CCB Version 3.



The net community and biodiversity benefits achieved by the project during the project implementation period has been verified with the actual implementation and verified to be a valid estimate. Further the newly added instances are on track to achieve its stated net community and biodiversity benefits and community and biodiversity objectives.

The verification of the GHG emission reductions was based on the validated PD, the baseline and monitoring methodology, validation reports, emission reduction spread sheets and other supporting documents made available to EPIC verification team by the project participant. The management of

project proponents is responsible for the preparation and reporting of GHG emissions data, and the reported GHG emissions reduction on the basis set out within the project monitoring plan.

It is the responsibility of EPIC verification team to express an independent verification opinion on the quality of emissions from the project for the monitoring period starting from 13 November 2012 - 29-December-2017 in terms of the net climate, community and biodiversity benefits achieved by the project. EPIC confirms that all verification activities including objectives, scope and criteria, level of assurance, the project's adherence to the validated PDD , and implementation as outlined in the PIR Version 03 adhere to the CCB Project Design Standards, Third Edition, as documented in this report.

EPIC concludes without any limitations and with reasonable level of assurance that that the TIST Program in India, VCS-001, VCS-001 PDD version 02 and CCBA Project Implementation Report for TIST Program in India, VCS-001, Version 03 meets the requirements of the CCB Project Design Standards (Third Edition), achieves significant level of climate, community and biodiversity benefits and Gold Level for Exceptional Community Benefits.

Prepared by:	Approved by :
	
Dr G Vishnu	K Sudheendra
(Lead Auditor)	(Head Operations)

## 6. LIST OF DOCUMENTS REVIEWED

S.No.	Document details
1	CCB PDD Main report 2nd Edition
2	CCB PDD Main report Verification 02 3rd Edition
3	Georeference file for Landsat image
4	Landsat 4/5 image with project area locations
5	Georeference file for Landsat image
6	Landsat 7 image with project area locations
7	Project boundaries for use with Google Earth
8	Excel spreadsheet with all project data
9	CCB Project Implementation Report
10	CCB Monitoring Plan
11	CCB First Monitoring Report
12	CCB Monitoring Data
13	CCB PIR Verification version 03
14	CDM methodology AR-AMS0001
15	Small Group GHG contract
16	CAAC management resumes
17	CAAC management and carbon project experience
18	TIST financial plan and projections
19	Governance indices for risk analysis
20	Public comment process – exhibit 29 a and b
21	TIST Quantifier Safety SOP
22	TIST Employee Rights SOP
23	UN Human Rights Development Report
24	FAO land degradation report
25	UNEP tree benefits webpage
26	Procedures to Demonstrate the Eligibility of Lands for Afforestation And Reforestation CDM Project Activities
27	CCB Gold-level survey report
28	TIST best practices for forestry
29	Scope Of Production Forestry In Enhancing Carbon Mitigation In India
30	Tamil Nadu Forest Department web page
31	Environment and Forest Department Policy Note 2005-2006
32	Environmental Profile of Thiruvallur District
33	IPCC Good Practice Guidance for LULUCF, Annex 3A 1 Tables.pdf
34	IPCC Good Practice Guidance for LULUCF, Table 4A-2
35	Tree Planting SOP
36	Award for Best Tree Planting, Tamil Nadu
37	Grievance mechanism policy
38	Sexual Harassment Policy
39	Non-Discrimination Policy
40	TIST SG Eligibility Requirements
41	TIST SG Membership Application
42	Quantifier Manual
43	TIST IN PD-VCS-Ex 07 Financial Plan
44	TIST IN PD-VCS-Ex 21 CDM Approval
45	TIST IN PD-VCS-Ex 28 NDMA Cyclone Prone District.pdf
46	TIST IN PD-VCS-Ex 30 Mgt of Teak Stands.pdf
47	TIST IN PD-VCS-Ex 31 Tsunami 2004.pdf
48	TIST IN PD-VCS-Ex 32 TN Seismic Hazards.pdf

**APPENDIX 1: RESOLUTION OF FINDINGS**

ID	Findings by VVB validation and verification team	Response by PP	Opinion of VVB
CAR 01	During site inspection, though a few grievances were informed by the farmers, the records of such grievances have not been provided.	<p><b>PP Response:</b> The farmers have not filed official grievances so no official records are available. Their oral comments have been restricted to operational issues concerning payment:</p> <p>1. <i>Vouchers to be distributed in time:</i> Because of the number of members and vouchers, this is always a challenge. While there have been cases where the payments were not made as quickly as preferred, the farmers are paid their full amount.</p> <p>2. <i>Voucher amount to be increased:</i> This is a regular comment. We pay the amounts required by the contract and will be sharing 70% of the profits with the farmers. Unfortunately, the carbon market is very limited, the prices are low and the volume of credits produced in TIST India is small. The ability to pay more to the farmers is just not there.</p> <p>3. Farmers who plant less trees, like 100 numbers should also to be included with TIST. The contract calls for the SG to plant and maintain a minimum of 1000 trees. This was established because of the cost involved with administering each SG (training, quantification, payment, etc.). We have voluntarily reduced the threshold to 500 trees but cannot at this time go to 100 trees due to cost.</p>	<p>The justification provided by the PP addressed the issue raised. Further the review of the payment vouchers and site inspection reflected that the grievances were also informed during node meeting and this was more of an operational issue.</p> <p>Resolved</p>



CAR 02	Section 2.3.15 of the PD does to refer to relevant host country (Indian) laws.	The section is revised now and version 02 is submitted	The revised PD address the requirement.  Resolved
CL 01	It is indicated as TIST's policy to not use chemical fertilizers and pesticides. Clarify how this is monitored to meet the requirements for the existing groves under this verification.	<p>All TIST employees are recruited from farmers' family that have very good knowledge on tree cultivation and natural farming. TIST trains the small groups regularly to use organic/natural fertilizer.</p> <p>TIST quantifiers when they visit the groves they will watch for the following species to check whether the grove is managed with organic/natural fertilizers:</p> <ol style="list-style-type: none"> <li>1. Perumal insect</li> <li>2. Kannadi rettai insect</li> <li>3. Dragon fly</li> <li>4. Spider web</li> <li>5. Pori vandu</li> </ol> <p>If it is wet land, there will be following species:</p> <ol style="list-style-type: none"> <li>1. Crab holes</li> <li>2. Snails or snail shell</li> <li>3. Black coloured insect hovering over the water</li> </ol> <p>If any of the above species found in the grove it indicates that the grove is maintained by organic fertilizers.</p> <p>If the quantifiers do not see any of the above, he asks the farmers about their tree care / farming practice procedure and encourages the farmers to follow the best practices of TIST</p>	The justification provided by the PP addressed the issue raised. Further the site inspection reflected that such instances were inspected by the quantifiers and reported.  Resolved

<p>IR 01</p>	<ul style="list-style-type: none"> <li>• Training records of Quantifier and Farmers</li> <li>• Exhibits 29 and 29a, the public notices and emails used for the first and second verification</li> <li>• In PD it is mentioned that “.....TIST trains farmers in many sustainable development programs that when implemented generate benefits to well-being....” Accordingly submit the records/documents</li> <li>• Records for number of people for whom health services were improved during this verification</li> <li>• Sessions on digital and basic education</li> <li>• As per the PD, Project activities are implemented on lands where the number of displaced grazing animals is less than 50 percent of the average grazing capacity of the project area. Provide the baseline survey conducted of the individual members to support this criteria for the new areas added.</li> </ul>	<p>to use organic/natural fertilizers.</p> <ul style="list-style-type: none"> <li>• <i>Training records of Quantifier and Farmers.</i> As noted in Joseph Rixon’s email dated 30.03.2018, Point No.6, examples of these records were provided during the VV visit. We showed you details like Node date, venue/village, topic discussed, topic trained, participants’ signature along with participating farmers’ small group seal. In addition we have attached a examples of a training record from Cluster meetings, “TIST IN V2 Ex 03 Training Sep17.pdf”, “TIST IN V2 Ex 04 Training Oct17.pdf” and “TIST IN V2 Ex 05 Training Nov17.pdf”. Also attached is “TIST IN V2 Ex 06 Women Livelihood training feedback.pdf”.</li> <li>• <i>Exhibits 29a and 29b, the public notices and emails used for the first and second verification.</i> As referenced in the MR they are available at <a href="http://www.tist.org/PD-IN-VCS-001%20Documents.php">http://www.tist.org/PD-IN-VCS-001%20Documents.php</a>. They are also being sent to you directly.</li> <li>• <i>In PD it is mentioned that “...TIST trains farmers in many sustainable development programs that when implemented generate benefits to well-being....” Accordingly submit the records/documents.</i> Basic education is provided for the needy, digital literacy is provided to cope with digital revolution and women empowerment program is conducted so that farmer’s family would get sustainable additional</li> </ul>	<p>The submitted documents have been reviewed to meet the requirements as indicated in the PDD and PIR. Resolved</p>
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	<ul style="list-style-type: none"> <li>• Sample of employment records to indicate increase in employee strength during this verification</li> <li>• Comments from local stakeholders, if any received during this validation of new areas</li> </ul>	<p>income – We have participants attendance and record books. “TIST IN V2 Ex 07 Node Report.pdf” is provided as an example.</p> <ul style="list-style-type: none"> <li>• <i>Records for number of people for whom health services were improved during this verification.</i> Find attached a medical camp report, “TIST IN V2 Ex 08 Medical camp report.pdf”</li> <li>• <i>Sessions on digital and basic education.</i> 24 basic education class per year and 24 digital literacy classes per year were conducted. “TIST IN V2 Ex 09 Digital literacy feedback.pdf”, “TIST IN V2 Ex 10 Education.pdf” and “TIST IN V2 Ex 11 Education feedback.pdf” are examples of the attendance and record books on these activities.</li> <li>• As per the PD, Project activities are implemented on lands where the number of displaced grazing animals is less than 50 percent of the average grazing capacity of the project area. Provide the baseline survey conducted of the individual members to support this criteria for the new areas added. Please see “TIST IN PD-VCS-001e App04b Data 171229.xlsx” at <a href="http://www.tist.org/PD-IN-VCS-001%20Documents.php">http://www.tist.org/PD-IN-VCS-001%20Documents.php</a>. It is also being sent to you directly.</li> <li>• Sample of employment records to indicate increase in employee strength during this verification. “TIST IN V2 Ex 12 Employee satisfaction survey 1.pdf” and “TIST IN V2 Ex 13 Employee satisfaction survey 2.pdf” are provided.</li> </ul>	
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		<ul style="list-style-type: none"><li>• Comments from local stakeholders, if any received during this validation of new areas. Please see Exhibit 29b.</li></ul>	
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