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Verification Report

FIRST PERIODIC VERIFICATION

OF THE JI TRACK-2 PROJECT UNFCCC ID: 0311

Monitoring period: 03 Jun 2009 to 31 Oct 2012

"Bikin Tiger Carbon Project – Permanent protection of otherwise logged Bikin Forest, in Primorye Russia"

REPORT NO. 600500981

09 April 2013

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199 - 80686 Munich - GERMANY

Industrie Service

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Subject:			First Periodic Verification under JI Track 2	
Executing Operational Unit:				
TÜV SÜD Industrie Service GmbH, Carbon Management Service Westendstrasse 199 - 80686 Munich, Federal Republic of Germany				
Project Participants :				
• Tribal Commune Tiger • CF Partners (UK) LLP				

Project Title	Project 0311: "Bikin Tiger Carbon Project – Permanent protection of otherwise logged Bikin Forest, in Primorye Russia"
Monitoring period:	03 Jun 2009 to 31 Oct 2012
First Monitoring Report (version/date)	Version 01 / 07 Jan 2013
Final Monitoring Report (version/date)	Version 01.2 / 29 Mar 2013

Summary:

TÜV SÜD Industrie Service GmbH has performed the first periodic verification of the registered JI track 2 project "Bikin Tiger Carbon Project – Permanent protection of otherwise logged Bikin Forest, in Primorye Russia". The project consists of improved forest management through protection of forest on 448,595 hectares (ha) in the North of Primorsky Kraj, in Far Eastern Russia.

The verification is based on requirements of the UN Framework Convention on Climate Change (UNFCCC) and the host country specific requirements. In this context, the relevant provisions set by the Marrakech Accords and the Kyoto Protocol; specific guidance provided by the JI-SC as well as by the Designated Focal Point (host country) has been taken into consideration.

A document review, followed by the site visit, was conducted to verify the information submitted by the project participant regarding the present verification period. Based on the assessment carried out, the verifier confirms the following:

- the project is implemented as described in the PDD regarding which the determination has been deemed final, change in project design is described and assessed in section 3.3 of this report and found to be in line with the JISC "Procedures regarding changes during project implementation" version 1. Hence, the original determination opinion is still valid for the project;
- the monitoring has been carried out in accordance with the monitoring plan as included in the PDD regarding which the determination has been deemed final;
- the installed equipment / monitoring practices essential for generating emission reductions is reliably and appropriately;
- the calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner;
- the project was generating emission reductions.

The verifier can confirm that the GHG emission reductions for the entire monitoring period are calculated without material misstatements. Our opinion refers to the project GHG emissions and resulting GHG emission reductions reported, determined using the valid and determined project

baseline, its monitoring plan and its associated documents.

Based on the information we have seen and evaluated, we confirm that the implementation of the project resulted in:

Verified Emission from 03 Jun 2009 to 31 Oct 2012:

Period	Amount of ERUs
03 Jun – 31 Dec 2009	43,922 t-CO_2-e
01 Jan – 31 Dec 2010	138,135 t-CO_2-e
01 Jan – 31 Dec 2011	184,141 t-CO_2-e
01 Jan – 31 Oct 2012	153,314 t-CO_2-e
Total from 03 Jun 2009 – 31 Oct 2012	**519,512 t-CO_2-e**

Assessment Team Leader: Sebastian Hetsch	**Technical Review:** Karin Wagner, Martin Seitz
Verification Team Members: Igor Kachan	**Certification Body responsible:** Eric Tolcach

Abbreviations

AAC	Annual Allowable Cut
AIE	Accredited Independent Entity
AM	Approved Methodology
CAR	Corrective Action Request
CR	Clarification Request
DBH	Diameter at Breast Height (of a tree)
DFP	Designated Focal Point
DVM	Determination and Verification Manual
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
ERUs	Emission Reduction Unit(s)
FAR	Forward Action Request
GHG	Greenhouse gas(s)
GIS	Geographic Information System
GPS	Global Positioning System
GWP	Global Warming Potential
HWP	Harvested Wood Products
IE	Independent Entity
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
KP	Kyoto Protocol
LULUCF	Land Use, Land Use Change and Forestry
MP	Monitoring Plan
NTFP	Non-timber forest product
NGO	Non Governmental Organisation
NHZ	Nut Harvesting Zone
PDD	Project Design Document
PP	Project Participant
SOC	Soil Organic Carbon
TCT	Tribal Commune Tiger
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard

Main Documents (referred to in this report)

Methodology (name / version)	JI project specific approach, using a methodology for baseline setting and monitoring in accordance with appendix B of the JI guidelines. The methodology applied is based on the methodology VM 0011 version 01 of the Verified Carbon Standard (VCS).	
Scope	14	
Technical Area(s)	14.1	
Approved PDD:	version 1.5 dated 26 Oct 2012	
Revised Monitoring Plan	NA	NA
Published Monitoring Report	01	07 Jan 2013
Revised Monitoring Report	01.2	29 Mar 2013
Project documentation link:	http://ji.unfccc.int/JIITLProject/DB/51OUYN5N2G1IVQT2J2QT0NVY5T67CX/details	

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1 INTRODUCTION

1.1 Objective

WWF Germany acting on behalf of the project owner Tribal Commune Tiger has commissioned TÜV SÜD to conduct the first periodic verification of the registered JI track-2 project titled: "Bikin Tiger Carbon Project – Permanent protection of otherwise logged Bikin Forest, in Primorye Russia".

Verification is the periodic independent review and ex-post determination by the Accredited Independent Entity (AIE) of the monitored reductions in GHG emissions during the defined verification period.

Periodic Verification:

The objective of the periodic verification is to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan for the respective period. Furthermore, the periodic verification evaluates the GHG emission reduction data and expresses a conclusion with a high, but not absolute, level of assurance about whether the reported GHG emission reduction data is free of material misstatements and verifies that the reported GHG emission data is sufficiently supported by evidence, i.e. monitoring records.

The verification shall consider both quantitative and qualitative information on emission reductions. Quantitative data comprises the monitoring reports submitted to the verifier by the project entity. Qualitative data comprises information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, review and internal audit of calculations/data transfers.

The verification work ensures that the project activity is assessed against all applicable JI Track-2 requirements as well as specific host country requirements as specified by the Designated Focal Point (DFP) for JI project implementation in Russia. The JI requirements as reference include also the JI modalities and procedures and subsequent decisions by the COP/MOP and documents released by the JI-SC and available on the UNFCCC JI website.

The objective of the verification work ensures that the project activity complies with the requirements as specified in the appendix B of the JI guidelines on the aforementioned UNFCCC JI website http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf#page=2.

According to this assessment TÜV SÜD should:

- Ensure that the project activity has been implemented and operated as per the registered PDD and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- Ensure that the published MR and other supporting documents provided are complete and verifiable and in accordance with applicable JI Track-2 requirements;
- Ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the applicable approved methodology;
- Evaluate the data recorded and stored as per the methodology of approved PDD;

- Evaluate the GHG emission reduction data and express a conclusion about whether the reported GHG emission reduction data is verifiable and sufficiently supported by evidence, i.e. monitoring records.

1.2 Scope - Verification Approach

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the Accredited Independent Entity.

This verification is based on the submitted monitoring report and the determination report. These documents are reviewed against the determined project design document including its monitoring plan, the requirements of the Kyoto Protocol, the JI Guidelines as well as related rules and guidance set by the CMP and JISC.

Determination Process and Final Approval

The determination of the project was carried out in 2012. The results of the determination were documented by TÜV SÜD in the Determination Report No. 600500624, dated 30 October 2012. The final Determination Report indicates no remaining issues with relevance for the again subsequent verifications.

Following the relevant requirements of Article 6 of the Kyoto Protocol and the JI guidelines (refer to Appendix B of the JI guidelines and to the national Russian regulations and procedures), the PP has applied a project specific approach. The principles of accuracy and completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The project was finally approved by the JISC and has the reference number 0311. Relevant associated documents are published on the UNFCCC weblink at http://ji.unfccc.int/JIITLProject/DB/51OUYN5N2G1IVQT2J2QT0NVY5T67CX/details.

Verification process

Based on the requirements in the DVM, TÜV SÜD has applied a rule-based approach for the verification of the project. The principles of accuracy, materiality, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification shall consider both quantitative and qualitative information on emission reductions. Quantitative data comprises the monitoring reports submitted to the AIE by the project entity. Qualitative data comprises information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, review and internal audit of calculations/data transfers.

The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications and/or corrective actions as well as so-called forward action requests may provide input for improvement of the monitoring activities.

1.3 GHG Project Description

Project activity:	"Bikin Tiger Carbon Project - Permanent protection of otherwise logged Bikin Forest, in Primorye Russia"
UNFCCC registration number:	0311
Project Participants:	• Tribal Commune Tiger • CF Partners (UK) LLP
Location of the project:	The project is located on in the Northern Part of Primorsky Krai, Russian Far East.
Date of registration:	07 Jan 2013 (date of confirmation for project registration from UNFCCC)
Crediting period:	03 Jun 2009 – 31 Dec 2012

The project activity consists of changes in forest management on the project area. Effectively, the project foresees to conduct no harvest, while the baseline scenario was identified to be selective logging of the project area, leading to GHG emissions.

In order to implement the project, the Project Participant "Tribal Commune Tiger" acquired the concession lease for the project area. For further protection of the project area, an anti-poaching patrol was established to prevent illegal logging; and frequent fire surveillance was conducted during the fire season.

The baseline emissions are quantified by applying a JI project specific methodological approach, outlined in the registered PDD. Small amounts of emissions occurred in the project scenario, which were quantified accordingly.

2 METHODOLOGY

2.1 Verification Process

The verification process is based on the approach depicted in JI guidelines and, in particular, refer to the Guidance on Criteria for baseline setting and monitoring, chapter C. – Guidance on monitoring. Following the good monitoring practices and its reporting the approved Joint Implementation Determination and Verification Manual (JI DVM, especially chapter G. Verification) was taken into consideration.

Standard auditing techniques have been adopted for the verification process. The means of verification for the fulfilment of the requirements and reporting are as per the DVM.

The work starts with a contract review and the appointment of the TÜV SÜD assessment team covering the technical scope(s) and area(s) as well as relevant host country experience for evaluating of this JI project activity. The principles of consistency and transparency, impartiality, independency and safeguarding against conflicts of interest and confidentiality were considered by the TÜV SÜD Certification Body (CB) and the management of the departement before accepting the verification contract.

Once the monitoring report is published on the JISC web site, the TÜV SÜD assessment team has carried out a desk review, on-site inspection, follow-up actions, resolution of issues identified and prepared a verification report. The verification report and other supporting documents then undergo an internal quality control by the TÜV SÜD Certification Body before its submission to the JISC for the final approval.
In order to ensure transparency, assumptions are clearly and explicitly stated, audit evidences and further background material are clearly referenced in Annex 2 of this report. Project and methodology-specific checklists and a customized protocol have been developed for the project. The protocol shows criteria (requirements) in a transparent manner, the discussion of each criterion by the assessment team and results of the subsequent verification.

The verification protocol (Annex 1) serves the following purposes:

- It organizes details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent verification process where the verifier will document how a particular requirement has been proved and the conclusion provided by the verifying team.

The findings are the essential part of this verification report, which are summarized in Annex 1 of the verification protocol.

2.2 Verification Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body (CB) ensuring that the required skills are covered by the team. The TÜV SÜD CB operates five qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor- Determiner (GHG Determiner)

- Greenhouse Gas Auditor- Verifier (GHG Verifier)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope and technical area - both are linked to the methodology - has to be covered by the assessment team. The verification team consisted of the following members:

Name	Qualification	Coverage of scope	Coverage of technical area	Host country experience
Sebastian Hetsch	ATL	☑	☑	
Igor Kachan	GHG-VER			☑

Sebastian Hetsch is appointed as Assessment Team Leader and GHG-Verifier for Scope 14 (forestry) under JI by the Certification Body "climate and energy" of TÜV SÜD Industrie Service GmbH in Munich, Germany. Mr Hetsch holds a university degree in forest science. He passed extensive training on auditing of GHG projects. Before joining TÜV SÜD he worked for several years in the field of international forest policy and forest management.

Igor Kachan is appointed as GHG Verifier of the Carbon Management Service Department of TÜD SÜD Industry Service GmbH. He had successfully completed IRCA registered Lead Auditor Training Courses: Environmental Management Systems and Quality Management Systems. He has Ph.D. in chemistry and worked as a lecturer (for 5 years) and research engineer/scientist (for 5 years). He was involved in determinations/verifications of more than thirty JI projects pertaining to various sectoral scopes: 1, 2, 3, 4, 5, 8, 9, 13 and 14.

Technical Reviewer:

- Karin Wagner and
- Martin Seitz covering the scope and technical area as respective expert.

2.3 Review of Documents

The monitoring report submitted by the PP and additional background documents related to the project performance has been reviewed. The published Monitoring Report was assessed based on the PDD regarding which the determination has been deemed final, the applied methodology and monitoring plan. The main purpose of the assessment conducted was to verify the completeness and correctness of the data and the information presented in the monitoring report.

Monitoring Plan

The applied Monitoring Plan was assessed with special awareness against the Monitoring Plan of registered PDD. The assessment included:

- A completeness check of the monitored parameters
- A check of the used monitoring meters including their accuracy and calibration procedures

Monitoring Report

A compliance check of the monitoring report with respect to the monitoring plan presented in the determined final PDD and the applied methodology was carried out.

Particular attention was paid to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures. In addition, the evaluation of data management and the quality assurance and quality control system was carried out in the context of their influence on the generation and reporting of emission reductions.

Moreover, a detailed review of the data transfer and recording procedures has been carried out on-site.

All key parameters had been focused with special awareness. All automatic raw data entry and a proper use of correct default data from external data sources had been proved.

The list of references and further documents reviewed within the verification is attached as Annex 2 to this report.

2.4 On-site Assessment and follow-up Interviews

TÜV SÜD performed a physical site inspection between 16 and 21 January 2013, including on-site interviews with the project participants to:

- confirm the implementation and operation of the project,
- review the data flow for generating, aggregating and reporting of the monitoring parameters,
- confirm the correct implementation of procedures for operation and data collection,
- cross-check the information provided in the MR with other sources,
- check the monitoring equipment against the monitoring plan presented in the PDD and the applied methodology,
- review the calculations and assumptions used to obtain the GHG data and ER,
- check if the QC/QA procedures are in place for preventing and correcting of errors or/and omissions in the reported data.
- Indentify whether the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.

A list of the persons interviewed during the verification activities is included in annex 2.

2.5 Quality of Evidence to Determine Emission Reductions

Among several evidences submitted, the following relevant and reliable evidence material has been used by the audit team during the verification process (see Annex 2):

- External data (e.g. scientific publications / IPCC LULUCF 2003) (IRL 7-9)
- Forest Inventory Data (IRL 4, 16)
- Quality assurance documents from the forest department (IRL 28, 29, 33) and remote sensing analysis (IRL 31, 32)
- Physical observations of project implementation by the audit team

Sufficient evidences and data covering the full verification period is available to validate the figures stated in the final MR. The source of the evidences and data will be discussed in chapter 3 of this report. The protocol gives a clear reference to sources assessed and is the basis for the conclusions of the audit team.

Specific cross-checks have been done in cases when further sources were available. The monitoring report figures were checked by the audit team against the raw data. It can be confirmed that no data transfer errors were detected.

2.6 Resolution of Clarification and Corrective and Forward Action Requests

The objective of this phase of the verification process is to resolve any outstanding issues, which require clarification for TÜV SÜD's conclusion on the reported GHG emission reduction. The findings raised as Forward Action Requests (FARs) (if any) indicated in previous reports (determination/verification) were discussed and resolved during this phase through communication between the PP and TÜV SÜD.

Concerns raised during the desk review, the on-site audit assessment and the follow up interviews are documented together with the according responses provided by the project participants in Annex 1 (verification protocols) to guarantee the transparency of the verification process.

A Corrective Action Request is raised where TÜV SÜD identifies:

- non-conformities in monitoring and/or reporting with the monitoring plan and/or methodology;
- that the evidence provided is not sufficient to prove conformity;
- mistakes in assumptions, data or calculations that impair the ER calculations;
- FARs raised during determination or previous verifications that are not solved until the on-site visit.

A Clarification Request is raised where TÜV SÜD does not have enough information or the information is not transparent in order to confirm a statement or data.

A Forward Action Request is raised where TÜV SÜD identifies that monitoring and/or reporting require special attention or adjustments for the next verification period.

Information or clarifications provided as a response to a CAR, CR or FAR can also lead to a new request.

2.7 Internal Quality Control

As a final step of verification, the final documentation including the verification report and annexes have to undergo an internal quality control by the Certification Body (CB) "climate and energy", i.e. each report has to be finally approved either by the Head of the CB or the Deputy. In case one of these two persons is part of the assessment team, the approval can only be given by the person who is not a part of the assessment team.

If the documents have been satisfactorily approved, the Request for Issuance is submitted to the JISC along with the relevant documents.

3 VERIFICATION RESULTS

In the following sections, the results of the verification are stated. The verification results relate to the project performance as documented and described in the determined PDD and the final Monitoring Report. The verification findings for each verification subject are presented below.

3.1 FARs from Determination / Previous Verification

Based on the monitoring report the verification team identified no material missing steps. Considering that it is the first periodic verification, there were no issues from the previous verification or the determination.

3.2 Project Approval

The project is approved by the DFP of France in line with DVM §90-91. On 04 October 2012, France has issued Letters of Approval (LoA) in order to authorize "CF Partners (UK) LLP". The letter is unconditional. TÜV SÜD has received those Letters of Approval from the project participants and considers the provided letters as authentic.

3.3 Project implementation in accordance with the registered PDD

There have been minor changes to project implementation as outlined and assessed below. Otherwise, the project is implemented as designed:

- TCT is the legal leaseholder of the project area (IRL 17). The audit team reviewed the contract and confirmed this also with interviews with relevant stakeholders during the on-site visit.
  Activities related to non-timber forest products (NTFPs) were conducted as planned in the Management Plan (IRL 37) and approved by the Forest Department (IRL 38).
- Surveillance for forest fires had been carried out by the "Forest Fire Fighting Service" (FFFS) of the Forest Department of Primorsky Kraj. Respective contracts for surveillance in particular of the project area had been signed between WWF Russia and the FFFS for the entire monitoring period (IRL 35). The contracts were reviewed by the audit team. The FFFS was visited and interviewed by the audit team during the onsite visit.
  Three small fires occurred in the monitoring period in the project area (see section D.2 of the Verification Protocol in Annex 1)
- Surveillance on illegal logging was carried out by TCT. Respective grant agreement was signed between WWF Russia and TCT (IRL 34), and reviewed by the audit team.
  Reports from the anti poaching brigades of TCT (IRL 28) were reviewed by the audit team, and the people involved were interviewed during the onsite visit. Also reports from the police and forest department regarding illegal logging were reviewed (IRL 29, 30)

Changes in Project Design

During project implementation there had been a minor change to the project design compared to the registered PDD, because the PPs were conducting legal logging in small parts of the western part of the project area, which was not foreseen in the PDD. Legal loggings were fore-

seen outside the project boundary however some legal loggings occurred within the project boundary due to the reasons detailed explained in Annex 1 of the MR. In order to ensure compliance with the PDD and methodological approach, the area of legal logging was taken out of the project, considering that the legal logging activities is considered baseline activity in the region.

Updated project boundary files were provided to the audit team (IRL 5). Legal logging was identified based on the authorization from the forest department (felling tickets, and post felling report from the forest department), as well as the Management Plan of the concession area, which covers the time until 2019 and identified compartments of the concession area where legal logging is planned. The area of the project activity is now 448,595 ha. Compared to the initial size of 450,374 ha it is a reduction by 0.4%

The change was assessed by the audit team in line with the JISC "Procedures regarding changes during project implementation" (version 01):

In line with § 6 of the procedure, the description and justification of the change is included as annex to the monitoring report and will be made publicly available.

The change in project design consists of reduction in size of the area of the project activity by 0.4%. TÜV SÜD confirms that the condition defined by § 33 of the JI Guidance are still met for the project and the original determination opinion for the project is still met; only the expected amount of ERUs is reduced:

a) The physical location of the project has not changed. The project area has been reduced in size by 0.4%, which is considered insignificant by the audit team.

b) Emission sources have not changed. The description provided in the registered PDD remains valid in the project

c) The baseline scenario is not impacted by the changes in project design. The parcels excluded actually confirm the baseline scenario of legal logging.

   Additionality is not impacted by the changes in project design: Additionality was sustained through a simple cost analysis. The reduction by less than 1% in project area does not impact this analysis. The project does not generate any financial returns other than carbon revenues to the PPs, which would not be generated in the baseline scenario.

d) The reduction in size of the project area does not impact the applicability of the JI specific methodological approach as presented in the JI PDD.

In summary TÜV SÜD concludes that the reduction of 0.4% of the area of the project activity is in line with the JISC "Procedures regarding changes during project implementation" (version 01). Hence, TÜV SÜD confirms that the conditions defined by paragraph 33 of the JI guidelines are still met for the project, and that the changes do not alter the original determination opinion for the project activity.

3.4 Compliance of the Monitoring with the Monitoring Plan

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD. All parameters during the monitoring period were monitored and evaluated as per the Monitoring Plan. The parameters as included to the registered monitoring plan are considered to be complete.

The verification of the parameters to be monitored as required by the monitoring plan is provided below. A comprehensive list of each parameter required by the monitoring plan (including the ones available at determination) is provided in Annex 1.

Parameters to be monitored:

Data / Parameter:	$A_{ND, j,t}$
Data unit:	ha
Description:	Area of Natural Disturbance
Source of data used:	Remote sensing images, in combination with control flights by the fire fighting department of the forest service
Means of verification / Comments:	The data for area of natural disturbances was verified by the audit team through a review of the remote sensing analysis conducted by WWF and the analysis of the "Forest Fire Fighting Services" of the Forest Department of Primorsky Kraj. The audit team reviewed the remote sensing data, and respective reports. Further, the audit team interviewed personnel from the "Forest Fire Fighting Services" regarding the analysis and reviewed respective reports and primary data (including remote sensing images, and flight logs of the fire control flights. The audit team concludes that the parameter is monitored appropriately in line with DVM §95.
Cross-check	As a cross-check the audit team interviewed relevant stakeholders, in particular members of the community in the village adjacent to the project area regarding forest fires, as well as foresters from the Forest Department.

Data / Parameter:	$F_{ND, j, t}$
Data unit:	dimensionless
Description:	Fraction of forest naturally damaged
Source of data used:	Collected by forest inventory team / default value as per monitoring plan.
Means of verification / Comments:	In line with the monitoring plan in the registered PDD the parameter was not monitored, but instead the default value of 100% damage was conservatively assumed in the calculations, if applicable (only relevant for 2012).
Cross-check	NA

Data / Parameter:	$V_{illegal-harvest, t}$
Data unit:	Cubic meter (cbm)
Description:	Volume of wood illegally logged
Source of data used:	Data from forest office and anti-poaching patrol from TCT
Means of verification / Comments:	The audit team assessed the data for volume of illegally logged wood through the review of the respective reports and verified this during the onsite visit, where the stumps of the illegally harvested trees were visible. Further, the audit team reviewed the QA/QC procedures, in particular the high resolution sensing images and their analysis, to confirm that the illegal harvest was monitored adequately. The audit team concludes that the parameter is monitored appropriately in line with DVM §95.
Cross-check	As a cross-check the audit team interviewed relevant stakeholders, in particular with the Forest Department of Primorsky Kraj that have respective reports from their local forests. Further the audit team interviewed members of the community in the village adjacent to the project area regarding illegal harvest in the area.

3.5 Assessment of data and calculation of greenhouse gas emission reductions

All data has been available and all the parameters have been monitored in accordance with the registered monitoring plan. The PP has provided the relevant monitoring data and respective calculation. On the basis of these data the audit team conducted a detailed review of the Excel based calculations. The data presented in the MR as well as calculation files has been cross checked against the original raw data. The cross check of the calculation file was done against the data presented in the original reports. The reported data have been cross-checked against other sources available as explained in chapter 3.4 and in Annex 1.

The audit team has examined the methods and formulae used to obtain the baseline, project and leakage emissions against the methods and formulae of the registered PDD. The same has been done with the methods and formulae described in the determined monitoring plan.

TÜV SÜD confirms that:

- Data sources used for calculating emission reductions are clearly identified, reliable and transparent;
- the used default values are clearly referenced and correctly cited;
- the methods and formulae used to obtain the baseline, project and leakage emissions are appropriate and without any mistakes or misstatements;
- that all assumptions, emission factors and default values (ex-ante values from PDD) are correctly justified and explicitly mentioned in the monitoring report;
- the calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

4 SUMMARY OF FINDINGS

The verifier can confirm that the published MR and related documents are complete and verifiable in accordance with the JI requirements. All the findings raised by the verification team, the responses by the PPs and the conclusion of the audit team are presented in Annex 1.

The means of verification and resulting changes in the MR or related documents are summarized in the table below:

CAR 1: Ensure to apply and refer to the latest JI Guidance throughout the MR.
CAR 1, means of verification
The audit team reviewed the updated MR. All references are now referring to the latest JI Guidance
CAR 1, changes in the MR or related documents
MR was updated accordingly.

CAR 2: The PP shall clarify which areas are actually considered to be part of the project activity and provide respective data on these boundaries to the audit team.
CAR 2, means of verification
The PP provided updated information regarding the area: updated GIS shape files and updated calculation files. The final version of these files is coherent, and the information regarding the area is in line with other reference document, such as official information from the forest department. The information regarding the area is also in line with the observations of the audit team during the onsite visit.
CAR 2, changes in the MR or related documents
The PP updated the GIS files with the information on the area of the project activity, as well as the Excel calculation files, where the baseline and project emissions are calculated. Changes in project implementation are described in Annex 1 of the MR (see also CAR 3)

CAR 3: The PP shall provide justification on changes in project design in line with JI "Procedures regarding changes during project implementation".
CAR 3, means of verification
Justification regarding the change in project design is provided in annex 1 to the MR in line with the JI procedure. TÜV SÜD confirms that changes and the respective explanation are in line with the respective procedure. The audit team assessed the information presented through a respective review of the documents provided (see Annex 1 of this report for details). Updated boundary files were provided to the audit team (IRL 5). Legal logging was identified based on the authorization from the forest department (felling tickets, and post felling report from the forest department), as well as the Management Plan of the concession area, which covers the time until 2019 and identified compartments of the concession area were legal logging is planned.
CAR 3, changes in the MR or related documents
An Annex was added to the PDD outlining the change in project design. Further, the MR and calculation files were updated regarding the area of the project activity.

CAR 4: In line with the changes to project implementation, the value $A_{project,t=0}$ has changed. Actual value shall be provided.
CAR 4, means of verification
The audit team reviewed the updated MR. The means of verification of the actual figure for the parameter is discussed in the CAR 3 and section 3.3 of this report.
CAR 4, changes in the MR or related documents
The PP updated the MR accordingly and included the correct value.

CAR 5: Based on the changes in project implementation, the numbers for baseline net harvest area are subject to change. MR shall be updated accordingly.
CAR 5, means of verification
The audit team reviewed the updated calculation and the updated MR. The numbers for baseline net harvest area were updated in the calculation and the correct values are now used. The calculation is now correct.
CAR 5, changes in the MR or related documents
The PP updated the MR and the calculations file accordingly and included the correct value.

CAR 6: The description of the parameter BCEFj in the MR is not in line with the Monitoring Plan.
CAR 6, means of verification
The audit team assessed the MR against the monitoring plan and respective references. The information presented is now in accordance.
CAR 6, changes in the MR or related documents
The PP updated the MR accordingly and included the correct value for BCEFj.

CAR 7: The value for parameter D in the MR differs from the one in the Monitoring Plan.
CAR 7, means of verification
The audit team assessed the MR against the monitoring plan and respective references. The information presented is now in accordance.
CAR 7, changes in the MR or related documents
The PP updated the MR accordingly and included the correct value for D.

CAR 8: The value for parameter f_{RSD} in the MR differs from the one in the Monitoring Plan.
CAR 8, means of verification
The audit team assessed the MR against the monitoring plan and respective references. The information presented is now in accordance.
CAR 8, changes in the MR or related documents
The PP updated the MR accordingly and included the correct value for f_{RSD}.

CAR 9: The value for parameter f_{branch_trim} in the MR differs from the one in the Monitoring Plan
CAR 9, means of verification
The audit team assessed the MR against the monitoring plan and respective references. The information presented is now in accordance.
CAR 9, changes in the MR or related documents
The PP updated the MR accordingly and included the correct value for f_{branch_trim}.

CAR 10: The value for parameter $R_{N/C}$ in the MR differs from the one in the Monitoring Plan
CAR 10, means of verification
The audit team assessed the MR against the monitoring plan and respective references. The information presented is now in accordance.
CAR 10, changes in the MR or related documents
The PP updated the MR accordingly and included the correct value for $R_{N/C}$.

CAR 11: Provide data and values in the Monitoring Report for all parameters to be monitored.
CAR 11, means of verification
The audit team reviewed the update MR and compared it also against the Monitroing plan. All required parameters are presented. Values are presented for each parameter. The values were cross-checked against other evidences (see annex 1 to this report).
CAR 11, changes in the MR or related documents
The PP updated the Monitoring Report and included data and values for all parameters to be monitored.

CAR 12: 1) Reports for each fire indicating how the area of each fire was actually calculated by the Forest Fire Fighting Service shall be provided to the audit team 2) Evidence on regular control flights shall be submitted to the audit team 3) Provide the remote sensing analysis for natural disturbances to the audit team 4) In line with the MP, the PP shall provide GIS layer of the fires. 5) The PP shall include information on data processing and storage and provide evidence that the data monitored and required for verification will be kept for two years after the last transfer of ERUs as per paragraph 42 of "Guidance on criteria for baseline setting and monitoring". 6) For QA/QC, the PP shall provide original reports from the forestry Units (i.e. lestnichestvo level) in line with the MP
CAR 12, means of verification
The documents and information required as per monitoring plan were provided by the PP to the audit team, and respective information was included in the MR. The audit team assessed the information against the requirements set out in the monitoring plan. In the final version of the MR, the required information are presented, and the audit team confirms that the parameter "Area of Natural Disturbance" is monitored in line with the monitoring plan.

CAR 12, changes in the MR or related documents
The MR was updated with respective information on the monitoring of the parameter "Area of Natural Disturbance"

CAR 13: 1) The PP shall provide the GPS points of the illegal logging area. 2) Provide details of the TCT report regarding the steps for calculating the volume of illegal logging as described in the MP. Provide respective tables for determining DBH from diameter of the tree stump and calculation of the volume. 3) Provide reports on illegal logging from the forestry Units (i.e. lestnichestvo level). 4) Clarify if reports from the forest department regarding illegal logging contains only information regarding the actual project area. 5) The PP shall clarify where and how data regarding illegal logging (reports from TCT, GPS data, etc) is store, and provide evidence that the data monitored and required for verification will be kept for two years after the last transfer of ERUs as per paragraph 42 of «Guidance on criteria for baseline setting and monitoring». 6) The PP shall clarify how the remote sensing analysis (used as QA/QC) was conducted, and how results of the analysis are stored. As per MP, the accuracy of the analysis shall be provided and explained how it was determined. 7) Clarify why summer and autumn images were used in the remote sensing analysis for 2011 and 2012, while the MR states that winter and spring images shall be used
CAR 13, means of verification
The documents and information required as per monitoring plan were provided by the PP to the audit team, and respective information was included in the MR. The audit team assessed the information against the requirements set out in the monitoring plan. In the final version of the MR, the required information is presented, and the audit team confirms that the parameter illegal logging is monitored in line with the monitoring plan.
CAR 13, changes in the MR or related documents
The MR was updated with respective information on the monitoring of the parameter illegal logging.

CAR 14: Baseline calculations shall be updated in line with the changes in project implementation. It shall be ensured that the calculation are fully interlinked and traceable.
CAR 14, means of verification
The audit team reviewed the updated calculation and the updated MR. The numbers for baseline net harvest area were updated in the calculation and the correct values are now used. The calculation is now correct, interlinked and traceable.
CAR 14, changes in the MR or related documents
The PP updated the MR and the calculations file accordingly and included the correct value.

CAR 15: The PP shall identify formulae, intermediate steps and constants in the MR.
CAR 15, means of verification
The updated MR was reviewed by the audit team and compared to the methodological approach presented in the registered PDD. Formulas and intermediate steps are now included and correctly applied.
CAR 15, changes in the MR or related documents
Formulas and intermediate steps were included in the MR in line with the applied methodological approach and the PDD.

5 VERIFICATION STATEMENT

TÜV SÜD Industrie Service GmbH has performed the first periodic verification of the approved JI Track 2 project: "Bikin Tiger Carbon Project - Permanent protection of otherwise logged Bikin Forest, in Primorye Russia".

The verification is based on requirements of the UN Framework Convention on Climate Change (UNFCCC) and the host country specific requirements. In this context, the relevant provisions set by the Marrakech Accords and the Kyoto Protocol; specific guidance provided by the JI-SC as well as by the Designated Focal Point (host country) has been taken into consideration.

A document review, followed by a site visit, was conducted to verify the information submitted by the project participant regarding the present verification period. Based on the assessment carried out, the verifier confirms the following:

- the project is implemented as described in the PDD regarding which the determination has been deemed final, change in project design is described and assessed in section 3.3 of this report and found to be in line with the JISC "Procedures regarding changes during project implementation" version 1. Hence, the original determination opinion is still valid for the project;
- the monitoring has been carried out in accordance with the monitoring plan as included in the PDD regarding which the determination has been deemed final;
- the installed equipment / monitoring practices essential for generating emission reductions is reliably and appropriately;
- the calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner;
- the project was generating emission reductions.

The verifier confirms that the GHG emission reductions for the entire monitoring period are calculated without material misstatements. Our opinion refers to the project GHG emissions and resulting GHG emission reductions reported, determined using the valid and determined project baseline, its monitoring plan and its associated documents.

Based on the information we have seen and evaluated, we confirm that the implementation of the project resulted in:

Verified emission in the above reporting period:

Sub- period	**Amount of ERUs**
03 Jun – 31 Dec 2009	43,922 t-CO_2-e
01 Jan – 31 Dec 2010	138,135 t-CO_2-e
01 Jan – 31 Dec 2011	184,141 t-CO_2-e
01 Jan – 31 Oct 2012	153,314 t-CO_2-e
Total from 03 Jun 2009 – 31 Oct 2012	**519,512 t-CO_2-e**

Munich, 09 April 2013

Eric Tolcach

Certification Body "climate and energy"
TÜV SÜD Industrie Service GmbH

Munich, 09 April 2013

Sebastian Hetsch

Assessment Team Leader

Annex 1: Periodic Verification Protocol

Bikin Tiger Carbon Project - Permanent protection of otherwise logged Bikin Forest, in Primorye Russia

JI Project ID: 0311

Project implementation in accordance with the registered project design document

DVM §92. The AIE should, through the desk-review and/or project site visit, assess whether the project has been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

DVM §93. The AIE should, through the desk review and/or project site visit, assess the status of operation of the project during the monitoring period.

CHECKLIST QUESTION	Ref	PDD description	Monitoring Report	Verification Findings	Final Concl
A. Description of the Project Activity					
A.1. Purpose and general description of the project activity					
Is a description of the project activity presented in this section, including: 1. Purpose of the project activity and the measures taken to remove greenhouse gases; 2. Brief description of the installed technology (tree species); 3. Relevant dates for the project activity (e.g. planting date, maintenance, harvest.). 4. Total GHG removal achieved in this monitoring period?	2, 3	The project consists of protection of forests by the PP through acquiring the lease for the project area and protecting it from wood harvest. Main activities are: • Acquiring the concession lease of the project area • Anti-poaching patrols against illegal logging • Fire control	The same as PDD (see changes in section B below)	The concept of the project is implemented as described in the PDD. However, there has been some changes in project design, which is described in section B of the MR and Annex 1.	☑

CHECKLIST QUESTION	Ref	PDD description	Monitoring Report	Verification Findings	Final Concl
A.2. Location of the project activity					
Is complete information of the location of the project activity provided, including town, city, country and GPS coordinates?	2, 3, 5	The location of the project area is described in the PDD. In addition digital boundary (shape files) were provided to the AIE. Only forest area are included in the project area.	Description of the project area is included in the MR	The project location is described briefly in the Monitoring Report. Detailed information was included in the PDD and digital boundary files were provided.	☑
A.3 Parties and Project Participants					
DVM § 90: Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest? DBM §91: Are all the written project approvals by Parties involved unconditional?	2, 29, 30	PPs are • Tribal Commune Tiger • CF Partners (UK) LLP	PPs are • Tribal Commune Tiger • CF Partners (UK) LLP	Tribal Commune Tiger has received approval from the host party Russia. CF Partners (UK) LLP received approval from France. LoAs issued are unconditional.	☑
A.4. Title, reference and version of the baseline and monitoring methodology applied to the project activity					
Is the complete reference of the methodology applied and tools included in the MR?	2, 3, 6	A JI project specific methodology is applied (based on VCS methodology "Estimating GHG Emission Reductions from Planned Degradation (Improved Forest Management)"-VM0011).	A JI project specific methodology is applied (based on VCS methodology "Estimating GHG Emission Reductions from Planned Degradation (Improved Forest Management)"-VM0011).	A JI project specific methodology is applied. **Corrective Action Request 1.** Ensure to apply and refer to the latest JI Guidance throughout the MR.	☑
A.5. Crediting period of the project activity and related information (start date and choice of crediting period):					
Is the start date and crediting period included in line with the registered PDD?	2, 3	Start date of the crediting period is 03 June	Start date of the crediting period is 03 June 2009, op-	Start date and crediting period is in line with the PDD.	☑

CHECKLIST QUESTION	Ref	PDD description	Monitoring Report	Verification Findings	Final Concl
		2009, operational lifetime 49 years and first crediting period 3 years and 7 month.	erational lifetime 49 years and first crediting period 3 years and 7 month.	The monitoring period covers the time from project start (03 June 2009) until 31 Oct 2012.	
B. Implementation of the project activity					
B.1. Description of implemented registered project activity					
Is the starting date of operation of the project activity indicated?	2, 3, 17	Start date of project activity is 03 June 2009, which is the start of the lease of the concession.	Start date of project activity is 03 June 2009, which is the start of the lease of the concession.	Start date of project activity is the same in the PDD and MR. Respective documents were assessed by the audit team.	☑
Does the report clearly describe the status of implementation and starting date of operation for each site? (*for project activities that consist of more than one site*)	2, 3	The project consists of only one site. No phased implementation is foreseen.	The project consists of only one site. No phased implementation is foreseen.	The project is fully implemented as confirmed by the audit team through document review (of the leases) and physical onsite visit.	☑
Does the report contain information regarding actual operation of the project activity during this monitoring period? Is information on special events included, in particular losses in carbon stock such as fire, pest and disease etc?	1, 2, 3, 17, 28-30, 34-38	The project is "operational" since the start of the project, when the PPs acquired the lease for the concession	The project is "operational" since the start of the project, when the PPs acquired the lease for the concession. There are however changes in the project implementation, as legal logging is conducted in few compartments of the project area (see section below on post registration changes). Three small fires occurred in monitoring period in the project area. The fires that occurred were reported (see monitoring section)	There have been changes to project implementation as outlined and assessed in section B.2 of the Monitoring Report and this checklist. Otherwise, the project is implemented as designed: • TCT is the legal leaseholder of the project area (IRL 17). The audit team reviewed the contract and confirmed this also with interviews with relevant stakeholders during the onsite visit. Activities related to non-timber forest products (NTFPs) were conducted as planned in the Management Plan (IRL 37) and approved by the Forest Department (IRL 38). • Surveillance for forest fires had	☑

CHECKLIST QUESTION	Ref	PDD description	Monitoring Report	Verification Findings	Final Concl
			Some illegal logging occurred at small scale (see monitoring section).	been carried out by the "Forest Fire Fighting Service" (FFFS) of the Forest Department of Primorsky Kraj. Respective contracts for surveillance in particular of the project area had been signed between WWF Russia and the FFFS for the entire monitoring period (IRL 35). The contracts were reviewed by the audit team. The FFFS was visited and interviewed by the audit team during the onsite visit. Three small fires occurred in the monitoring period in the project area (see section D.2) • Surveillance on Illegal logging was carried out by TCT. Respective grant agreement was signed between WWF Russia and TCT (IRL 34), and reviewed by the audit team. Reports from the anti poaching brigades of TCT (IRL 28) were reviewed by the audit team, and the people involved were interviewed during the onsite visit. Also reports from the police and forest department regarding illegal logging were reviewed (IRL 29, 30) ***See requests in B.2***	

Post registration changes

Revision of monitoring plan

DVM §99. If the project participants submitted to the AIE a revised monitoring plan, the AIE shall determine whether:

(a) The project participants provided an appropriate justification for the proposed revision;

(b) The proposed revision improves the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans.

DVM §100. If the determination referred to in paragraph 99 above is positive, it shall proceed with the verification based on the revised monitoring plan.

CHECKLIST QUESTION	Ref	Monitoring Report	Verification Findings	Final Concl
B.2. Post registration changes				
Revision of the Monitoring Plan				
Have the PPs presented a revised MR? Is appropriate justification provided in line with DVM § 99? Does the proposed revision improves the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	2	Not applicable	No revision is requested by the PP.	☑
Changes to project design of registered project activity				
Are changes to the project design presented by the PP? Are these changes in line with the "Procedures regarding changes during project implementation"? (i.e. *described and justified by the PP, publicly available as an annex to the next monitoring report*)	2, 3, 5, 6, 39	Some legal logging has occurred in the area that was initially defined as project area, which is considered a change in project implementation. The changes occurred however only on less than 1% of the project area. The PP decided to exclude these areas from the project area and thus considered	The change in project design was assessed by the audit team. The PPs are conducting legal logging in the western part of the project area, which was not foreseen in the PDD. In order to ensure compliance with the PDD and methodological approach, the area of legal logging was taken out of the project, considering that the legal logging activities is considered baseline activity in the region. Updated project boundary files were provided to the audit team (IRL 5). However it was found during the onsite visit of the audit team that the updated project area was not correct. Legal logging was identified based on the authorization from	☑

CHECKLIST QUESTION	Ref	Monitoring Report	Verification Findings	Final Concl
		these areas as baseline activities.	the forest department (felling tickets, and post felling report from the forest department), as well as the Management Plan of the concession area, which covers the time until 2019 and identified compartments of the concession area were legal logging is planned. **Corrective Action Request 2.** The PP shall clarify which areas are actually considered to be part of the project activity and provide respective data on these boundaries to the audit team. **Corrective Action Request 3.** The PP shall provide justification on changes in project design in line with JI "Procedures regarding changes during project implementation".	
Do the changes alter the original determination opinion for the project?	2, 3, 39	-	The determination opinion is not changed in regards to additionality and baseline. However, the expected amount of ERUs are reduced. (see below) ***See CAR 3***	☑
Has the physical location of the project changed?	2, 3, 5	-	The project location is unchanged. The project area has only been slightly reduced. Overall reduction is less than 1% of the project area. ***See CAR 2 and 3***	☑
Have emission sources changed? If so, are they reflected in an updated monitoring plan?	2, 3, 39	Emission sources have not changed.	Emission sources have not changed. ***See CAR 3***	☑
Has the baseline scenario change?	2, 3, 39	The baseline scenario is not impacted by the changes in project design.	The baseline scenario is not impacted by the changes in project design. The parcels excluded actually confirm the baseline scenario, which is legal logging. Additionality is not impacted by the changes in project design: Additionality was sustained through a simple cost analysis. The reduction by less than 1% in project area does not impact this analysis. The project does not generate any financial returns	☑

CHECKLIST QUESTION	Ref	Monitoring Report	Verification Findings	Final Concl
			other than carbon revenues to the PPs, which would not be generated in the baseline scenario. ***See CAR 3***	
Are the changes consistent with the JI specific approach or the clean development mechanism (CDM) methodology upon which the determination was prepared for the project?	2, 3, 6, 39	-	The reduction in size of the project area does not impact the applicability of the JI specific methodological approach as presented in the JI PDD. ***See CAR 3***	☑
Forward Action Requests				
Were any FARs raised in previous assessments?	2	NA		☑

3. Compliance of monitoring with the monitoring plan

DVM

94. The AIE should assess whether the monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

95. The AIE should review the monitoring result and assess whether:

(a) For calculating the emission reductions or enhancements of net removals, key factors, e.g. those listed in paragraph 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project were taken into account, as appropriate;

(b) Data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent;

(c) Emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice;

(d) The calculation of emission reductions or enhancements of net removals is based on conservative assumptions and the most plausible scenarios in a transparent manner.

DVM §101. The AIE should assess the quality of the information using standard auditing techniques provided in the monitoring report by assessing whether the data and their sources are clearly identified, reliable and transparent. For this purpose, the AIE should assess, with an on-site inspection if necessary, e.g., whether:

(a) The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures;

(b) The function of the monitoring equipment, including its calibration status, is in order;

(c) The evidence and records used for the monitoring are maintained in a traceable manner;

(d) The data collection and management system for the project is in accordance with the monitoring plan.

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
C. Description of the monitoring system					
Is a description of the monitoring system included in the MR?	2, 3	Monitoring system is described in the PDD.	Monitoring system is described in the MR.	The description of the monitoring in the MR is in line with the PDD.	☑
Data Procedures					
Are procedure in place and in line with the MP for: • Data collection and generation (*see also section D for individual parameters*) • Data handling (aggregation, recording, calculation and reporting), in particular transcribing field data to digital calculation sheets (*see also section D for individual parameters*) • Data storage, including back-up of the field sheets and digital data • QA/QC procedures (e.g. re-check of data measurement, data entry, etc - *see also section D for individual parameters*)	2, 3	Data procedures are described for each individual parameter in the PDD. An overview is presented.	Data procedures are described for each individual parameter in the MR. An overview is presented in section C of the MR.	Data procedures are discussed for each individual parameter (see below).	☑
Organizational structure					
Is the organization structure explained, including roles and responsibilities of personnel, and emergency procedures for the monitoring system?	2, 3	WWF Russia Amur Branch is supporting the PP in the actual monitoring.	WWF Russia Amur Branch is supporting the PP in the actual monitoring.	Organizational structure is described and in line with the PDD. ***See request regarding data storage below.***	☑
D. Data and parameters					
D.1. Data and parameters fixed ex ante or at renewal of crediting period					
Are all parameters “not monitored” and/or “available at determination” listed as per MP and applied methodology? Including: Data unit, Description, Source of data used, Value(s), Indication on what the data are used for, Additional comment	2, 3	Parameters are included and described in the PDD, see below for details.	Parameters are included and described in the MR, see below for details.	Parameters are included and described in the MR, see below for comments and conclusion.	☑
Data to monitor the changes in carbon stocks in the carbon pools in the project scenario					

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
BCEFj	2, 3, 4, 14-16	Included in the MP (0.62)	Included in the MR (0.62)	The description of the parameter BCEFj in the MR is not in line with the Monitoring Plan. ***See CAR 6 below***	☑
CF_{AGB}	2, 3, 4, 14-16	Included in the MP, table 16 of the PDD	Values of PDD used	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
$V_{gstock, j, t}$	2, 3, 4, 14-16	Included in the MP Average value applied 226 cbm/ha, see excel sheet	Included in the MR Average value applied 226 cbm/ha	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
Data to monitor the greenhouse gas emissions by sources in the project scenario		Not applicable	Not applicable	Not applicable	☑
Data necessary for determining the changes in carbon stocks in the carbon pools in the baseline scenario	2, 3				☑
Parameters to be Measured Once (Not Monitored)	2, 3				☑
$A_{project,t=0}$	2, 3, 4, 5	Included in the MP 450,374 ha	Included in the MR 450,374 ha	Same value as in MP was applied. **Corrective Action Request 4.** In line with the changes to project implementation, the value $A_{project,t=0}$ has changed. Actual value shall be provided. (***see also CARs in section B.2***)	☑
$A_{project,j,t=0}$	2, 3, 4, 5	Included in the MP 450,374 ha	Included in the MR 450,374 ha	***See CAR 4 above***	☑
$DBH_{n,i,s,j,t=0}$	2, 3, 4, 14-16	Included in the MP Various values, included in document nr 17	Included in the MR Various values	Same values as in PDD were applied.	☑
$H_{n,i,s,j,t=0}$	2, 3, 4, 14-16	Included in the MP Various values, included in document nr 17	Included in the MR Various values	Same values as in PDD were applied.	☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
Annual net harvest area: $A_{NHA\_annual,t}$	2, 3, 4, 14-16	Included in the MP 3323 ha and 8762 ha (see tab 6 in PDD)	Included in the MR 3323 ha and 8762 ha	Same values as in PDD were applied. **Corrective Action Request 5.** Based on the changes in project implementation, the numbers for baseline net harvest area are subject to change. MR shall be updated accordingly.	☑
Data and parameter not monitored					
BCEFj	2, 3, 4, 7-9, 14	Included in the MP (0.62)	Included in the MR (0.62)	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination. **Corrective Action Request 6.** The description of the parameter BCEFj in the MR is not in line with the Monitoring Plan.	☑
BEF	2, 3, 4, 7-9, 14	Included in the MP Value applied 1.4 from FAO	Included in the MR Value applied 1.4 from FAO	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
CF_{wood}	2, 3, 4, 7-9, 14	Included in the MP, see table 16 of PDD	Included in the MR Value applied 0.5 and tab 16 of PDD	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
CF_{AGB}	2, 3, 4, 7-9, 14	Included in the MP, table 16 of the PDD	Values of PDD used	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
D	2, 3, 4, 7-9, 14	Included in the MP Value applied 0.45, see tab 16 of PDD	Parameter included with a value of 0.4476	**Corrective Action Request 7.** The value for parameter D in the MR differs from the one in the Monitoring Plan.	☑
Di	2, 3, 4, 7-9, 14	Included in the MP Value applied see tab 16 of PDD	Included in the MR Value applied see tab 16 of PDD	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
	2, 3, 4,	Included in the MP	Included in the MR	Same value is applied in Monitoring as de-	☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
$V_{gstock, j, t}$	14	Average value applied 226 cbm/ha, see excel sheet	Average value applied 226 cbm/ha	scribed in the PDD/MP and assessed at determination.	
K_{decay}	2, 3, 18	Included in the MP Value 0.06 Tab 18 PDD	Included in the MR Value 0.06 Tab 18 PDD	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
f_{RSD}	2, 3, 13	Included in the MP 0.41, Tab 19 of the PDD	Included in the MR 0.40, Tab 19 of the PDD	**Corrective Action Request 8.** The value for parameter f_{RSD} in the MR differs from the one in the Monitoring Plan.	☑
f_{branch_trim}	2, 3, 9	Included in the MP Value 0.4	Included in the MR Value 0.41	**Corrective Action Request 9.** The value for parameter f_{branch_trim} in the MR differs from the one in the Monitoring Plan.	☑
$f_{lumber\_recovery}$	2, 3, 11	Included in the MP Value 0.45, Tab 23 PDD	Included in the MR Value 0.45, Tab 23 PDD	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
k_{ltHWP}	2, 3, 7, 8	Included in the MP Value 0.023	Included in the MR Value 0.023	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
k_{stHWP}	2, 3, 7, 8	Included in the MP Value 1.0	Included in the MR Value 1.0	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
$G_{regrowth, t}$	2, 3, 9	Included in the MP Value 0.46, tab 26 PDD	Included in the MR Value 0.46, tab 26 PDD	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
Data necessary for determining the greenhouse gas emissions by sources in the baseline scenario					☑
Data and parameter not monitored					
EF_{fuel}	2, 3, 7, 8	Included in the MP 0.29519, tab 28 PDD	Included in the MR 0.29519, tab 28 PDD	Same value is applied in Monitoring as described in the PDD/MP and assessed at	☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
				determination.	
$FC_{harvest}$	2, 3, 20	Included in the MP Value 0.12	Included in the MR Value 0.12	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination	☑
$FC_{hauling}$	2, 3, 19	Included in the MP Value 1.3 kL/m3	Included in the MR Value 1.3 kL/m3	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
R_{CH4}	2, 3, 7, 8	Included in the MP Value 0.012 (IPCC default)	Included in the MR Value 0.012 (IPCC default)	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
R_{N2O}	2, 3, 7, 8	Included in the MP Value 0.007 (IPCC default)	Included in the MR Value 0.007 (IPCC default)	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
$R_{N/C}$	2, 3, 7, 8	Included in the MP Value 0.01 (IPCC default)	Included in the MR Value 0.001 (IPCC default)	**Corrective Action Request 10.** The value for parameter $R_{N/C}$ in the MR differs from the one in the Monitoring Plan.	☑
GWP_{CH4}	2, 3, 7, 8	Included in the MP Value 21 (IPCC default)	Included in the MR Value 21 (IPCC default)	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
GWP_{N2O}	2, 3, 7, 8	Included in the MP Value 276 (IPCC default)	Included in the MR Value 276 (IPCC default)	Same value is applied in Monitoring as described in the PDD/MP and assessed at determination.	☑
D.2. Data and parameters monitored					
Are all "monitoring" parameters described? Including: Data unit, Description, Measured /Calculated /Default, Source of data, Value(s) of monitored parameter, Indication what the data are used for , Monitoring equipment, Measuring/ Reading/ Recording frequency, Calculation method (if applicable), QA/QC procedures applied	2, 3	Information included in the PDD		Some values in the monitoring plan are not identified (empty cells, for "N.A." in cases were data should be available). **Corrective Action Request 11.** Provide data and values in the Monitoring Report for all parameters to be monitored.	☑
Data to monitor the changes in carbon stocks in the carbon pools and the greenhouse gas emis-					☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
sions by sources in the project scenario					
Area of natural disturbance $A_{nd,j,t}$	2, 3, 24, 29, 33, 35	Parameter included • Parameter is determined with remote sensing analysis, combined with control flights • Report stored electronically • Annual reports from fire fighting department QA/QC • Reports from Forestry Unit	**Values Monitored:** No natural disturbances occurred between 3 June 2009 and 31 Dec 2011. Between 01 January 2012 and 31 Oct 2012 6.5 ha were burnt in three fire events. **Data Sources:** Reports from Forest Fire Fighting Service are indicated. **Data Collection, Processing and Storage:** No information on data collection, processing and storage is provided. **QA/QC:** Reports from Forest Department are indicated in the MR.	**Values Monitored:** Between 01 January 2012 and 31 Oct 2012 6.5 ha were burnt. No fires occurred in between project start and 31 Dec 2011. **Data Sources:** Summary reports from the fire fighting service were provided to the audit team (IRL 33). The figures were confirmed also during interviews onsite with the Forest Fire Fighting Service, as well as with people from TCT working in the project area. Actual reports of each fire, including information how the area was calculated remain to be submitted to the audit team (see request below) **Data Collection, Processing and Storage:** • Regular control flights were foreseen to be conducted over the project area as per MP. Respective evidence needs to be submitted to the audit team (see request below). • A remote sensing analysis was foreseen to be carried out in line with the MP. The analysis remains to be submitted to the audit team (see request below). • No GIS layer of the fires was available at the onsite visit (see request below). • No information regarding data storage is provided (see request below).	☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
				QA/QC: Reports from the forest department in Vladivostok were provided to the audit team, confirming the fires (IRL 29). However, the original reports from the forestry Units (i.e. lestnichestvo level) were not provided to the audit team (see request below). **Corrective Action Request 12.** • Reports for each fire indicating how the area of each fire was actually calculated by the Forest Fire Fighting Service shall be provided to the audit team. • Evidence on regular control flights shall be submitted to the audit team. • Provide the remote sensing analysis for natural disturbances to the audit team. • In line with the MP, the PP shall provide GIS layer of the fires. • The PP shall include information on data processing and storage, and provide evidence that the data monitored and required for verification will be kept for two years after the last transfer of ERUs as per paragraph 42 of "*Guidance on criteria for baseline setting and monitoring*". • For QA/QC, the PP shall provide original reports from the forestry Units (i.e. lestnichestvo level) in line with the MP.	
Fraction of forest disturbed $f_{natdisturb,\,j\,,t}$	2, 3	Parameter included. Measurement will be done by forest specialists, sample	No measurements were conducted . As per the methodological ap-	It was assumed that 100% of the forest was disturbed and the respective carbon emitted, which is in line with the PDD and its	☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
		plots approach will be applied (or assume 100% of biomass loss).	proach, a 100% damage was assumed.	Monitoring Plan.	
$V_{illegal\ \_\ harvest\ ,t}$	2, 3, 28 - 32	Parameter included: Procedures described in the PDD/MP, including: • Detection through anti-poaching patrols • GPS points of area subject to illegal logging • Measurement of tree stumps • Determining the DBH and height for overall volume SOP: • Reports from Anti-poaching patrols • Electronically storage QA/QC: • Reports from Forestry Unit and/or Police • Remote sensing analysis	**Values Monitored:** Volume on illegal logging is included in the monitoring report. **Data Sources:** Reports from the anti poaching brigades were provided, as well as reports from the forest department. **Data Collection, Processing and Storage:** Data should be aggregated and stored electronically. **QA/QC:** Summary reports from forest department and forest police were provided. Remote sensing analysis to detect new forest infrastructure was carried out. No new illegal infrastructure was detected.	**Values Monitored:** Volume on illegal logging is reported. Two incidents of illegal logging occurred in 2012. **Data Sources:** Reports from the anti-poaching patrols are provided to the audit team. No GPS points were available to the audit team during the onsite visit. Reports from the forest department of Primorsky Krai are provided to the audit team. **Data Collection, Processing and Storage:** Reports from illegal logging were not stored by TCT as indicated in the MR. **QA/QC:** Reports from the Forest Department regarding illegal logging were provided to the audit team. It is unclear if the data is actually a different source than the one provided by TCT. Inconsistencies were detected in the data from the forest department, as sub-compartments were included that are not part of the project area. Remote sensing analysis was conducted as QA/QC procedure for illegal logging (and	☑

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
				fire). Two analysis were presented to the audit team, one from the Federal Forest Agency, "Far Eastern Forestry Research Institute" (IRL 31), covering 2009 – 2011, and one form WWF Russia (IRL 32) covering 2012. In both analysis high resolution satellite images were used to detect changes. Cloud ration was below the 20%, resolution of the images used were below 10 m. **Corrective Action Request 13.** • The PP shall provide the GPS points of the illegal logging area. • Provide details of the TCT report regarding the steps for calculating the volume of illegal logging as described in the MP. Provide respective tables for determining DBH from diameter of the tree stump and calculation of the volume. • Provide reports on illegal logging from the forestry Units (i.e. lestnichestvo level). • Clarify if reports from the forest department regarding illegal logging contains only information regarding the actual project area. • The PP shall clarify where and how data regarding illegal logging (reports from TCT, GPS data, etc) is stored, and provide evidence that the data monitored and required for verification will be kept for two years after the last transfer of ERUs as per paragraph 42 of "*Guidance on criteria for baseline setting and moni-*	

CHECKLIST QUESTION Methodology requirements	Ref	Monitoring Plan (PDD)	Monitoring Report	Verification Finding	Final Concl
				toring". • The PP shall clarify how the remote sensing analysis (used as QA/QC) was conducted, and how results of the analysis are stored. As per MP, the accuracy of the analysis shall be provided and explained how it was determined. • Clarify why summer and autumn images were used in the remote sensing analysis for 2011 and 2012, while the MR states that winter and spring images shall be used	
Other parameters					
Monitoring of Annual allowable Cut (AAC)	2, 3, 36	The baseline parameter shall be re-evaluated and baseline amended, if new laws, rules and procedures are adopted by the Federal Forest Agency and/or Forest Department of Primorsky Kraji. For each verification period, the WWF will provide a written statement from the Forest Department or an independent forest research institution that the AAC is still valid	No information presented in the MR	A statement from the forest department is provided, confirming the amount of legal logging. The document was reviewed by the audit team, and interviews with the Head of the Forest Department and respective specialists were conducted during the onsite visit, where the numbers were reconfirmed.	☑

3. Assessment of data and calculation of greenhouse gas emission reductions

DVM §101. The AIE should assess the quality of the information using standard auditing techniques provided in the monitoring report by assessing whether the data and their sources are clearly identified, reliable and transparent. For this purpose, the AIE should assess, with an on-site inspection if necessary, e.g., whether:

(a) The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures;

(b) The function of the monitoring equipment, including its calibration status, is in order;

(c) The evidence and records used for the monitoring are maintained in a traceable manner;

(d) The data collection and management system for the project is in accordance with the monitoring plan.

CHECKLIST QUESTION	Ref	Verification Findings	Draft Concl	Final Concl
E. Calculation of emission reductions or GHG removals by sinks				
E.1. Calculation of baseline emissions or baseline net GHG removals by sinks				
Are baseline net GHG removals quantified correctly, and in line with the applied methodology and PDD?	2, 3, 4	Calculation files were submitted. In line with the changes in project design, the amount of baseline GHG emissions were reduced, considering the reduction in project area. **Corrective Action Request 14.** Baseline calculations shall be updated in line with the changes in project implementation. It shall be ensured that the calculations are fully interlinked and traceable.	CAR	☑
Is the calculation tool in general clearly described and transparent (e.g. traceable non protected Excel file)?	2, 3, 4	The calculations are provided in Excel and clearly traceable.		☑
Are all formulae, intermediate steps and constants described transparently including correct units and in compliance with the methodology and the PDD?	2, 3, 4	The formulae, intermediate steps and constants are provided in the PDD. The calculation for the monitoring report apply the same formulae and steps.		☑

CHECKLIST QUESTION	Ref	Verification Findings	Draft Concl	Final Concl
		Corrective Action Request 15. The PP shall identify formulae, intermediate steps and constants in the MR.		
Are all ex-ante data listed and confirmed if they are in compliance with the PDD?	2, 3, 4	All ex-ante data needed for calculation is listed in the MR, see also list and comments in section D.		☑
Are all default parameter listed and in compliance with the PDD and the used methodology?	2, 3, 4	All ex-ante data needed for calculation is listed in the MR, see also list and comments in section D.		☑
Are all formulae included in the calculation tool in compliance with the PDD and methodology/tool?	2, 3, 4	The calculations were already provided at determination. The same formulae were applied for the MR as for the PDD. ***See request above***		☑
E.2. Calculation of project emissions or actual net GHG removals by sinks				
Are project actual net GHG removals by sinks quantified correctly, and in line with the applied methodology and PDD?	2, 3, 4	Calculations are provided. The actual data for fire and illegal logging were used to calculate the emission reduction of the project activity.		☑
Are project emission sources listed in line with the applied methodology and PDD?	2, 3, 4	Emission sources from fire and illegal logging are listed in line with PDD and the methodological approach.		☑
Are these emission sources quantified correctly and in line with the applied methodology and PDD?	2, 3, 4	Calculations are provided. The actual data for fire and illegal logging were used to calculate the emission reduction of the project activity. **Natural Disturbance:** Fire occurred on 6.5 ha. A damage of 100% was assumed. **Illegal Logging:** Reports on volume of illegal logging are provided in the MR and respective reports from the anti poaching brigades and the forest department. However the actual calculations for the actual volume of illegal logging are not provided in a traceable manner. ***(see request in section D)***		☑
Is the calculation tool in general clearly described and transparent (e.g. traceable non protected Excel file)?	2, 3, 4	The calculation is provided in an Excel file. The calculations are clearly described and transparent / traceable.		☑

CHECKLIST QUESTION	Ref	Verification Findings	Draft Concl	Final Concl
Are all formulae, intermediate steps and constants described transparently including correct units and in compliance with the methodology and the PDD?	2, 3, 4	All formulas and intermediate steps are listed in the PDD. For the monitoring the same formulas and intermediate steps are applied. ***See CAR 15 above***		☑
Are all ex-ante data listed and confirmed if they are in compliance with the PDD?	2, 3, 4	All ex-ante data needed for calculation is listed in the MR, see also list and comments in section D.		☑
Are all default parameter listed and in compliance with the PDD and the used methodology?	2, 3, 4	All ex-ante data needed for calculation is listed in the MR, see also list and comments in section D.		☑
E.3. Calculation of leakage				
Are sources of leakage listed in line with the applied methodology and PDD?	2, 3, 4	In line with the methodological approach presented in the PDD, leakage is set as 20% market leakage.		☑
Is leakage quantified correctly, and in line with the applied methodology and PDD?	2, 3, 4	Leakage in quantified according to the methodological approach outlined in the PDD. Due to changes in project implementation the calculation have to be updated, ***see request in section E.1.***	CAR	☑
E.4. Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks				
Are the net GHG emission reductions and removals quantified correctly and in line with the applied methodology and PDD?	2, 3, 4	The net GHG emission reductions and removals are quantified correctly and in line with the applied methodology and PDD Due to changes in project implementation the calculation have to be updated, ***see request in section E.1.***	CAR	☑
E.5. Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD				
Does the monitoring report contain a comparison of the actual ERUs claimed in the monitoring period with the estimate in the PDD, and explanation on any significant increase?	2, 3, 4	A comparison is included in the MR. The numbers of actual net anthropogenic GHG removal achieved during the current monitoring period is lower than estimated in the PDD, mainly based on the changes in project implementation.	☑	☑
E.6. Remarks on difference from estimated value in registered PDD				
Is an explanation provided in case of any increase in the actual net anthropogenic GHG removal achieved during the current monitoring period?	2, 3, 4	An explanation for the differences is provided. Due to changes in project implementation, the amount of ERUs is reduced.	☑	☑

Summary of Requests and Responses of Project Developer

Project Title: Bikin Tiger Carbon Project - Permanent protection of otherwise logged Bikin Forest, in Primorye Russia

Number of Pages: 9

Industrie Service

Table 2: Summary of Requests and Responses of Project Developer

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
Corrective Action Request 1. Ensure to apply and refer to the latest JI Guidance throughout the MR.	A.4	The latest version of the 'JI Guidance of Criteria for Baseline Setting and Monitoring' was applied. References in the MR to this Guidance were updated on pages 7 (4 times).	The Monitoring Report is referring to the latest version of the JI Guidance. Request closed. ☑
Corrective Action Request 2. The PP shall clarify which areas are actually considered to be part of the project activity and provide respective data on these boundaries to the audit team.	B.2	The project area was reduced by legal logging sites compared to the project area as identified in the registered PDD. The excel file, sheet 'LL' provides a complete list of legal logging sites. This forest department confirms that this list is complete (52 - Legal logging sites, letter FD, GIS project area). These sites were removed from the project area. A revised list of compartments and sub-compartments included in the project area is provided in the excel file, sheet 'Vol'. In addition, a revised GIS file on the project area is provided to the AIE 52 – (52 - Legal logging sites, letter FD, GIS project area). This ensures that areas, where legal logging occurred, were removed from the project area.	Updated information on the area was provided to the audit team. The information on the areas included (shape files) is not in line with the information presented during the onsite visit, and also not in line with the data presented in the calculation of the emission reduction. The PP shall clarify which areas are considered for calculation of emission reduction. In Annex 1, Table 13, the PP shall clarify what are sources "0.5", "0.25", and "0.3". Further, the table is not consistent with the calculation file regarding the compartments excluded and with the reference 52 provided by the PP
		Shape file: The shape file had three errors- 131-30 and 154-32 were not removed from the shape file, but in the excel file. Finally in the excel file, 123-16 was erroneously removed instead of 123-17. All three errors were corrected and the shape file is now consistent with the excel file and reference nr 52. Annex 1, Table 13, 0.5, 0.25 and 0.3 refer to the actual size	The PP updated the information regarding the compartments. The shapefiles and Excel files submitted are now in accordance. Hence, it is clarified which areas are considered part of the project activity. The information is also in

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
		of the logging site which is irrelevant here (i.e. whole Sub-Compartments were excluded) and which were included erroneously. The actual sources of information are the contracts between TCT and the state logging company, also referred to as felling tickets. The correct source was included in Table 13.	line with the observations of the audit team during the onsite visit. Request closed. ☑
Corrective Action Request 3. The PP shall provide justification on changes in project design in line with JI "Procedures regarding changes during project implementation".	B.2	The justification on changes is provided in Annex 1.	The changes in project design are justified in Annex 1. See CAR 2 above regarding the parcels included in the actual project area. Overall the audit team confirms that the changes are in line with the JI "Procedures regarding changes during project implementation". Request closed ☑
Corrective Action Request 4. In line with the changes to project implementation, the value $A_{project,t=0}$ has changed. Actual value shall be provided.	D.1	Changes to the project area are outlined in Annex 1 and the reduced project area was included in section D1.	The new value for $A_{project,t=0}$ is now included in the monitoring report. Respective justification and evidence was provided to the audit team, and the new value was confirmed by the audit team. See CAR 2 above regarding the parcels included in the actual project area. Request closed ☑
		Please refer to the PP's reply to CAR2.	The value for parameter is now $A_{project,t=0}$ updated in the MR. The parameter is correct in in accordance with other information presented in the verification. Request closed. ☑

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
Corrective Action Request 5. Based on the changes in project implementation, the numbers for baseline net harvest area are subject to change. MR shall be updated accordingly.	D.1	$A_{NHA\ annual\ t}$ was corrected and is amounts now to 3,258 and 8,593 ha.	The data for baseline harvest and respective emission and reduction of carbon pools were correctly taken into account. The calculations and the MR are updated respectively. See CAR 2 above regarding the parcels included in the actual project area. Request closed ☑
		Please refer to the PP's reply to CAR2.	The calculation file of baseline emissions and project emissions was updated according to the changes in the area. The calculations are now correct and in line with other information presented. Request closed. ☑
Corrective Action Request 6. The description of the parameter BCEFj in the MR is not in line with the Monitoring Plan	D.1	The description of $BCEF_j$ was corrected.	The description of the parameter $BCEF_j$ in the MR was updated and is now in line with the Monitoring Plan. Request closed. ☑
Corrective Action Request 7. The value for parameter D in the MR differs from the one in the Monitoring Plan.	D.1	The value of parameter D was changed from 4 digits to 2 digits and now reads 0.45 which is identical with the PDD.	The description of the parameter D in the MR was updated and is now in line with the Monitoring Plan. Request closed. ☑
Corrective Action Request 8. The value for parameter f_{RSD} in the MR differs from the one in the Monitoring Plan.	D.1	The value for f_{RSD} was corrected and now amounts to 0.41.	The description of the parameter f_{RSD} in the MR was updated and is now in line with the Monitoring Plan. Request closed. ☑
Corrective Action Request 9.	D.1	The value for $f_{branch\ trim}$ was corrected and now amounts to	The description of the parameter

<table>
<tr><th>Clarifications and Corrective Action Requests by Audit Team</th><th>Ref. to MR</th><th>Summary of Project Owner Response</th><th>Conclusion Audit Team</th></tr>
<tr><td>The value for parameter f_{branch_trim} in the MR differs from the one in the Monitoring Plan</td><td></td><td>0.40.</td><td>f_{branch_trim} in the MR was updated and is now in line with the Monitoring Plan. Request closed. ☑</td></tr>
<tr><td><u>Corrective Action Request 10.</u>
The value for parameter $R_{N/C}$ in the MR differs from the one in the Monitoring Plan</td><td>D.1</td><td>The value of parameter $\boldsymbol{R_{N/C}}$ was corrected and now amounts to 0.01.</td><td>The description of the parameter $R_{N/C}$ in the MR was updated and is now in line with the Monitoring Plan. Request closed. ☑</td></tr>
<tr><td><u>Corrective Action Request 11.</u>
Provide data and values in the Monitoring Report for all parameters to be monitored.</td><td>D.2</td><td>The values for all parameter are included in Section D2. Evidence is provided under the following references:
<table>
<tr><th colspan="3">Reference List</th></tr>
<tr><td rowspan="3">$V_{illegal\text{-}harvest,\ t}$</td><td>Primary</td><td>References 1, 2, 42</td></tr>
<tr><td>QAQC I</td><td>References 3 and 43 to 45</td></tr>
<tr><td>QAQC II</td><td>Reference 12 &13</td></tr>
<tr><td rowspan="2">A_{ND}</td><td>Primary</td><td>Reference 14 & 15</td></tr>
<tr><td>QAQC</td><td>Reference 43-45</td></tr>
</table></td><td>The updated MR contains values for all parameter to be monitored. Respective evidence was provided to the audit team.
Table 4 and 6 do not specify the units for the data presented.</td></tr>
<tr><td></td><td></td><td>Units were specified in Table 4 and 6.</td><td>The required data is presented in the MR. Sources and units are correctly referenced. Request closed. ☑</td></tr>
<tr><td><u>Corrective Action Request 12.</u>
• (1) Reports for each fire indicating how the area of each fire was actually calculated by the Forest Fire Fighting Service shall be provided to the audit team
• (2) Evidence on regular control flights shall be submitted to the audit team
• (3) Provide the remote sensing analysis for natural</td><td>D.2</td><td>Please note that project emissions due to forest fires amount for 0.38% of emission reductions and are hence insignificant by definition of JISC26, Annex 2.
1. The occurred fires are too small to be detected by the FFFS remote sensing approach. Hence, the reports from FFFS do not provide details about the calculation of areas which is in line with the national procedures for fire detection.</td><td>1. References were provided to the audit team. The non-existence of the calculation of area of fire shall be included in the monitoring report
2. Evidence of regular control flights were provided to the</td></tr>
</table>

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
disturbances to the audit team • (4) In line with the MP, the PP shall provide GIS layer of the fires. • (5) The PP shall include information on data processing and storage and provide evidence that the data monitored and required for verification will be kept for two years after the last transfer of ERUs as per paragraph 42 of «Guidance on criteria for baseline setting and monitoring». • (6) For QA/QC, the PP shall provide original reports from the forestry Units (i.e. lestnichestvo level) in line with the MP		Still, the reports for the local forestry features a sketch of the areas burnt and a determination of the areas burnt in ha. These documents are provided as Reference 43-45. 2. The flight logs of the forest fire fighting service (FFFS) may serve as evidence for the conduction of flights. Flight logs from 2009-2012 are provided under Reference 53 – Flight logs. 3. The remote sensing analysis is conducted by the federal forest fire fighting service. The analysis is provided in form of three maps (2010-2012) and four log frames. Please refer to References 37 to 40b. The maps show the initial heat detections by evaluation of Modis (terra & aqua) data. For 2009 it was not possible to produce such a map, as the software showed an error code. The log frames provide detailed data for the regional lesnichestvo (only part of Primorye, approx. 2,000,000ha which covers five local forestries including the three which cover the project area) of geographical location, time of detection and final classification of heat detection. 4. Rosleshoz (Reference 41) provides guidelines for the 'Design, Organization and Management of Forest Pathology Monitoring'. This document, Section 2.4, §49, page 12 specifies a minimum area for forest fires to be detected equalling 10ha. The occurred fires are significantly smaller (2ha, 2ha and 2.5ha). Such fires are not detected in the remote sensing analysis and no GIS layer exists. 5. Please refer to section C for data storage ('at least up to two years after end of the CP.' 6. Details about data storage was included in Section C. Please refer to Reference 43-45.	audit team and in line with the interviews conducted during the onsite visits 3. The results of the remote sensing analysis for natural disturbances was provided to the audit team. The results were in line with the data and information presented in the MR. No information was available for 2009, the PP shall clarify and justify this in the MR. 4. No GIS layers were available as per the guidelines for the 'Design, Organization and Management of Forest Pathology Monitoring'. The PP shall clarify this in the MR. 5. Information on data processing and storage is included in section C of the MR. The audit team considers the data processing and storage to be in line with «Guidance on criteria for baseline setting and monitoring» 6. The original reports from the forestry Units (i.e. lestnichestvo level) regarding the forest fires were provided for all three fire events. Respective information is in line with the MR
		Ad 1: This information was included in Section D.2. Ad 3: This information was included in Section D.2.	Ad 1 / 3 / 4: Respective information was included in the Monitoring Report. Considering that the

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
		Ad 4: This information was included in Section D.2, in combination with 'Ad 1' above.	procedures are in line with the Standard Operational Procedure mentioned in the MR, the audit team considers that the parameter is measured and calculated in line with the MR and correctly. The QA/QC measures applied are also considered adequate and in line with the MR. Request closed. ☑
Corrective Action Request 13. • (1) The PP shall provide the GPS points of the illegal logging area. • (2) Provide details of the TCT report regarding the steps for calculating the volume of illegal logging as described in the MP. Provide respective tables for determining DBH from diameter of the tree stump and calculation of the volume. • (3) Provide reports on illegal logging from the forestry Units (i.e. lestnichestvo level). • (4) Clarify if reports from the forest department regarding illegal logging contains only information regarding the actual project area. • (5) The PP shall clarify where and how data regarding illegal logging (reports ftrom TCT, GPS data, etc) is store, and provide evidence that the data monitored and required for verification will be kept for two years after the last transfer of ERUs as per paragraph 42 of «Guidance on criteria for baseline setting and monitoring». • (6) The PP shall clarify how the remote sensing analysis (used as QA/QC) was conducted, and how results of the analysis are stored. As per MP, the	D.2	Please note that project emissions due to illegal logging amount for 0.14% of emission reductions and are hence insignificant by definition of JISC26, Annex 2. 1. The GPS points for illegal logging are provided under Reference 54 – Illegal logging TCT GPS points. 2. TCT reports (Reference Nrs. 2 and 42) provide details on nrs. of trees, DBH, height and volume. DBH is determined in accordance to table # 2.74 (FEFRI 2010, reference 50). After DBH and height (data-in) is known, the volume of each tree is determined by tables # 2.43-2.48 of instruction of Far Eastern forest measurement (FEFRI 2010, Refernce 51). Then determined volumes are multiplied by number of trees of corresponding diameters and total volume by species is calculated. 3. The reports from the forestry units are provided under References Nrs. 46-49. 4. Neither the reports from TCT nor the reports from the forestry unit report on illegal logging in Sobolinskoe forestry unit, nr 112. Still the general statement from the Forest Department lines out illegal logging in compartment nr 112. It was clarified that compartment nr 112 is within the project area. The PP decided to take the related project emissions into	1. One GPS point per area was provided to the audit team. 2. References for measurements of DBH and tables for height and volume are provided to the audit team. 3. The reports on illegal logging from the forestry Units (i.e. lestnichestvo level) were provided to teh audit team. The information are in line with the data presented in the MR. 4. Compartment 112 is reported by the forestry department as illegal logging site although it is actually not part of the project area. For reason of conservativness, the PP decided to still include the volume reported as emission to the project 5. Information on data storage regarding illegal logging (reports

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
accuracy of the analysis shall be provided and explained how it was determined. • (7) Clarify why summer and autumn images were used in the remote sensing analysis for 2011 and 2012, while the MR states that winter and spring images shall be used		account, even though these are not reflected in the primary data source, nor in the QAQC data source, which is considered to be conservative. 5. Illegal logging data storage and management is discussed in Section C. 6. Remote sensing analysis for a crediting period was done in two steps: 1st – analysis by Dallesproject 2009-2011 with using special software to detecting changes in forest canopy integrity. More detailed the procedure is described in report by Dallesproject (reference #12 chapter 2 – provided to AIE) 2nd – analysis by WWF GIS specialist 2011 – 2012 by means of visual interpretation. More detailed the procedure is described in report by WWF (reference #13 chapter 2 – provided to AIE) Results stored as the remote sensing reports (ref. 12 and 13). Accuracy determination: For accuracy determination the following approach was applied: in field within the project area GPS points of forest roads and forest infrastructure (storage places) were taken (46 points). After this with use of ArcGIS software has been conducted analysis. All of 46 point was identified as roads and infrastructure on the satellite images of 2012. Taking in account possible discrepancies and human errors that was assumed to set accuracy to 90% 7. For 2011-2012 analysis was used following images: For 2011: SUMMER (RapidEye, QuickBird, WorldView-1, WorldView-2) high-resolution images for western part of project area and WINTER (SPOT 4) 10 meters-resolution images of entire territory. For 2012: because of shortening crediting period in 2012 for analysis were used late autumn images (4 November – 24 November)	from TCT, GPS data, etc) is included in section C. The procedures are in line with the "Guidance on criteria for baseline setting and monitoring". 6. The remote sensing analysis is described in the respective report provided to the audit team. 7. The remote sensing analysis partly differs from the MP, as the pictures are from summer and autumn. The PP shall clarify and justify this in the MR. 8. The naming of the parameter "Volume of Wood Sold as Determined by Field Survey" (MR page 20) is not in line with the MP (PDD page 74/75).

Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
		Ad 7: The information was included in Section D.2. Ad 8: The name of the parameter was changed to 'Volume of Illegal Logging'.	Information regarding the remote sensing analysis was included in the Monitoring Report. The audit team considers that the parameter is measured and calculated in line with the MR and correctly. The QA/QC measures applied are also considered adequate and in line with the MR. The name of the parameter 'Volume of Illegal Logging' is updated in line with the MR. Request closed. ☑
Corrective Action Request 14. Baseline calculations shall be updated in line with the changes in project implementation. It shall be ensured that the calculation are fully interlinked and traceable.	E.1	The baseline calculations in section E1, A1 E2, E3, E4 and E5 were updated in line with the changes during the verification process. The excel file was modified so that the input data are clearly labelled as such and all other cells are fully interlinked and traceable. Please refer to the Excel file, ER Model, Input parameter for adaptation of AAC. Calculations are fully interlinked and traceable. The excel model now includes e.g. in sheet 'ER Model' a field on input data which is the basis for subsequent adaption of the AAC (cells J2:K16).	The calculation need to be further updated in line with CAR 2. The sheet "ReGr" contains errors in the calculations. On sheet ER Model not all input parameter are clearly identified and sources provided (cells M26 – P27 and
		Calculations were updated in accordance with changes related to CAR2. Ad ReGr. The regrowth module in cells M28-Y38 is an outdated duplicate for former test purposes which now was removed from the file. 'ER Calc' F6-F15 refer to the correct regrowth model, 'ReGr', Y17-Y26. Ad Input Parameter: Input parameter were specified in 'ER Model' cells J3-P5. These now also sever as input for the module 'baseline logging area and volumes, cells M26-P27.	The calculation file of baseline emissions and project emissions was updated according to the changes in the area. The calculations are now correct, interlink and traceable, and in line with other information presented. Request closed. ☑

Summary of Requests and Responses of Project Developer

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Clarifications and Corrective Action Requests by Audit Team	Ref. to MR	Summary of Project Owner Response	Conclusion Audit Team
Corrective Action Request 15. The PP shall identify formulae, intermediate steps and constants in the MR.	E.1	Formulae and constants were identified and included in Sections E1-E4.	Formulaes and intermediate steps were included in the MR in line with the applied methodological approach and the PDD. Request closed. ☑

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Annex 2: Information Reference List

<table>
<tr><th>Ref. No.</th><th>Author/Editor/ Issuer</th><th>Title of Document</th><th>Date</th></tr>
<tr><td>1</td><td></td><td>Persons interviewed during the on-site audits (Name, Institution, Position)
<table>
<tr><th>Name</th><th>Organisation</th></tr>
<tr><td>Burian M.</td><td>Senior Consultant, GFA ENVEST</td></tr>
<tr><td>Chuvasov E.</td><td>Forest Officer, WWF Russia, Amur Branch</td></tr>
<tr><td>Danilov D.</td><td>System Administrator, WWF Russia, Amur Branch</td></tr>
<tr><td>Berdnikova O.</td><td>GIS Specialist, WWF Russia, Amur Branch</td></tr>
<tr><td>Rogov I.</td><td>Project Coordinator, WWF Russia, Amur Branch</td></tr>
<tr><td>Purekhovskiy A.</td><td>GIS Specialist, WWF Russia, Amur Branch</td></tr>
<tr><td>Shirko V.</td><td>Head, TCT</td></tr>
<tr><td>Kukchenko I.</td><td>Head on Sustainable Forest Management, TCT</td></tr>
<tr><td>Gorunov N.</td><td>Leader of Anti-Poaching Brigade, TCT</td></tr>
<tr><td>Kastkin A.</td><td>Lead Expert, Forest Management Department of Primorsky region</td></tr>
<tr><td>Egorov E.</td><td>Head, Forest Management Department of Primorsky Region</td></tr>
<tr><td>Pstiga S.</td><td>Deputy Head, Forest Management Department of Primorsky Region</td></tr>
<tr><td>Makarov A.</td><td>Head of the Subdivision, Forest Management Department of Primorsky Region</td></tr>
<tr><td>Butenko V.</td><td>Head of the Subdivision, Forest Management Department of Primorsky Region</td></tr>
<tr><td>Yushin V.</td><td>Head, Primorskaya Airbase</td></tr>
<tr><td>Medvedev V.</td><td>Deputy Head of Flight Service, Primorskaya Airbase</td></tr>
</table></td><td>Jan 2013</td></tr>
<tr><td>2</td><td>Project Participants</td><td>Monitoring Report: Version 01, dated 07 January 2013
final version 1.2, dated 29 March 2013</td><td></td></tr>
<tr><td>3</td><td>Project Participants</td><td>Project Design Document (PDD), registered version 1.5</td><td>26 Oct 2012</td></tr>
<tr><td>4</td><td>Project Participants</td><td>Project and Baseline Emission calculation: Bikin Model Monitoring 2012-12-07 Logging Sites Removed.xlsx</td><td>07 Dec 2012</td></tr>
<tr><td>5</td><td>Project Participants</td><td>GIS files of project area at strata level (project_area.shp)</td><td>21 Mar 2012</td></tr>
<tr><td>6</td><td>VCS</td><td>VCS Methodology: VM 00011 version 1.0 “Methodology for Improved Forest management – Logged to Protected Forest: Calculating GHG Benefits from Preventing Planned Degradation”: http://www.v-c-s.org/methodologies/VM0011</td><td></td></tr>
</table>

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Ref. No.	Author/Editor/ Issuer	Title of Document	Date
7	IPCC	Intergovernmental Panel on Climate Change. Good Practice Guidance for Land Use, Land-Use Change and Forestry	2003
8	IPCC	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan	2006
9	FAO	Forest Resource Assessment Russian Federation	2005
10	Mikhail Yatskov, Mark E. Harmon and Olga N. Krankina	A Chronosequence of Wood Decomposition in the Boreal Forests of Russia, Canadian Journal of Forest Resources, Vol. 33.	2003
11	Primorskstat	Numbers on lumber recovery	2010
12	A.A. Dorofeeva	"Fragments of reforestation dynamics in Korean pine stands after industrial logging", Collection work of the Far East Forestry Research Institute, edition 12, Khabarovsk,	1974
13	Kovalev et al	Study on residual stand damage values	2011
14	State Forest Inventory Service Team (Khabarovsk)	Original inventory data (txt) (forest inventory of the project area)	Finished June 2010
15	Ministry of Natural Resources and Environment of the Russian Federation	Adoption of the Forest Inventory Instruction' (class 2 inventory)	2008
16		Forest Inventory of the Bikin NHZ from 1992	1992
17	Forest Department Primorsky Krai / TCT	Lease contract for TCT for the Bikin NHZ	2009
18	Yatskov et al	Study on k-values: Chronosequenses of composition of boreal forests in Russia...	2003
19	NHZ Vostochnya	Post felling inventory analysis NHZ Vostochnya	
20	Klvac and Skoupy	Harvest emissions	2009
21	NHZ Vostochnya	Letter on fuel wood consumption at hauling operations	
22	Federal Forestry Agency Far Eastern filial agency of	Determination of allowable annual cut for all cuttings types on territory of Verhne-Perevalninskii forest district, Sobolinskii subdivision (compartments 68, 107-117), Krasnoyarovskii subdivision (compartments 118-308, 326-337, 342-407, 409, 413, 417), Ohotnichie subdivision (compartments 309-325, 338-341, 408, 410-412, 414-416,	

Ref. No.	Author/Editor/ Issuer	Title of Document	Date
	forest inventory filial agency of Federal State Unitary Enterprise "ROSLESINFORG" "DALLESPROEKT" Federal budgetary institution "Far Eastern Forestry Research Institute"	418-523, 525-530, 537-543, 549-563, 571-575, 589, 590, 593, 594, 598-603, 611-620, 626, 627, 632-656, 663-666, 701-713, 715-717, 719) of Primorski	
23	Head of forest department Primorsky Kraji	Approval of harvest plan	27 Oct 2011
24	Rosleskhoz	"Guideline for the Design, Organization and Management of Forest Pathology Monitoring" No 523	29 Dec 2007
25	Federal Forest Agency	Far Eastern Forest inventory handbook	1973
26	DFP of Russia	Host country Approval and Letter of Approval for "Tribal Commune Tiger"	18 Jun 2012
27	DFP of France	Letter of Approval, authorizing "CF Partners (UK) LLP"	04 Oct 2012
28	TCT	Illegal Logging Reports	2009-2012
29	Forest Department Primorsky Krai	Report on Illegal Logging and Fires	2009-2012
30	Forest Department Primorsky Krai	Report on Illegal Logging (Police Reports), and calculation of damage	2009-2012
31	Federal Forest Agency, Far Eastern branch of state forest inventory, Branch of Federal state unitary enterprise "Roslesinforg" – "Dallesproject"	Report on Detection of changes in forest and detection of new forest infrastructure in the leased territory of TCT "Tiger"	2012
32	WWF Russia, Amur Branch	Remote sensing Analysis 2012 for new forest infrastructure (Including satellite images from 2011 and 2012	2012
33	Forest Fire Fighting Service	Report on fires in the project area	2009-2012
34	WWF Russia, Amur Branch	Grant to TCT for Anti Poaching	
35	WWF Russia, Amur Branch	Contract with Forest Fire Fighting Service for surveillance in the project area	2009-2012

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Ref. No.	Author/Editor/ Issuer	Title of Document	Date
36	Forest Department Primorsky Krai	Confirmation on Annual Allowable Cut in the project area	2013
37	TCT	NTFP Management Plan for concession leased by TCT	2009
38	Forest Department Primorsky Krai	Approval of NTFP Management Plan	2009
39	TÜV SÜD	Determination report of the project “Bikin Tiger Carbon Project - Permanent protection of otherwise logged Bikin Forest, in Primorye Russia” JI Project ID: 0311 http://ji.unfccc.int/JIITLProject/DB/51OUYN5N2G1IVQT2J2QT0NVY5T67CX/details	30 Oct 2012