JACO CDM

PS Validation Report

Client: The Nature Conservancy

Project: Restoration of Giant Panda Habitat in Southwest Sichuan, China

26 December, 2014

Report No. GR14W0010D

JACO CDM CO., LTD.

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Approved by:	Project No.:
Michio HIRUTA CEO, President of JACO CDM	
Client:	Client ref.:
Client Name: The Nature Conservancy	

Summary:

JACO CDM Co., Ltd. has performed the validation of "Restoration of Giant Panda Habitat in Southwest Sichuan, China" (herein after the "Project").

The purpose of the Project is to implement a Panda Standard (PS) AFOLU project in Mamize Nature Reserve in Leibo County, Sichuan Province, China. The project area was deforested during a large scale of commercial logging in 1960s, resulting in barren lands. To restore degraded habitats of the Giant Panda and other endangered wildlife, control soil erosion and improve of local communities, the proposed PS project activity plans to establish 500 ha of forests by direct planting of native trees. It is expected to produce 161,881 tCO_2e of long-term credits in 60 years crediting period, with an annual mean of 2,698 tCO_2e.

The validation is the independent third party assessment of the project design, and is the requirement for all PS projects. The project's compliance with the relevant PS and host country criteria are validated in order to confirm that the project design is sound and reasonable and meet the stated and identified criteria.

This validation report summarizes the findings of the validation.

The validation consisted of the following three steps:
  i) desk review of the project design, the baseline and the monitoring plan etc.,
  ii) follow-up interviews with project stakeholders
  iii) the resolution of outstanding issues and issuance of the final validation report and the opinion.

The responses to 24 Clarification Requests to the PF version 1.0 (03/08/2013) were satisfactorily provided by the project participants and the original PF was revised.

In summary, it is JACO CDM's opinion that the Project as are described in the revised PF Version 3.0 (10/12/2014) meets all relevant PS requirements for the PS and host country criteria, and correctly applies the CDM Methodology AR-ACM0003 version 02.0.0.

Hence, JACO CDM requests the registration of the "Restoration of Giant Panda Habitat in Southwest Sichuan, China".

Report No.:			
GR14W0010D			
Report title:			

PS Validation Report
  Restoration of Giant Panda Habitat in
  Southwest Sichuan, China			

Work carried out by:			
Teruo FUKUDA, Takahiro YUGUCHI		☒ No distribution without permission from the Client or responsible organizational unit	
Work verified by:			
Akihide MADENOKOJI		☐ Limited distribution	
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Abbreviations

A/R	Afforestation and Reforestation
CAR	Corrective Action Request
CCER	China Certified Emission Reduction
CDM	Clean Development Mechanism
CERs	Certified Emission Reduction
CGCF	China Green Carbon Foundation
CL	Clarification Request
DBH	Diameter at Breast Height
DOE	Designated Operational Entity (of UNFCCC CDM)
DRC	Development and Reform Commission
DW	Dead Wood
EIA	Environmental Impact Assessment
EPB	Environmental Protection Bureau
ER	Emission Reduction
ERPA	Emission Reduction Purchase Agreement
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Green House Gas(es)
GPG	Good Practice Guidance
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LI	Litter
LULUCF	Land Use, Land Use Change and Forestry
MP	Monitoring Plan
NDRC	National Development and Reform Commission (of P.R. China)
NGO	Non Governmental Organization
ODA	Official Development Assistance
PF	Project Form
PO	Project Owner
PP(s)	Project Participant(s)
PRA	Participatory Rural Appraisal
PRC	People's Republic of China
PS	Panda Standard
SD	Sustainable Development
SFD	Sichuan Forest Department
SOC	Soil Organic Carbon
SOP	Standard Operating Procedures
TC	Technical Committee (of Panda Standard)
TNC	The Nature Conservancy
UNFCCC	United Nations Framework Convention on Climate Change
WD	Wood Density

JACO CDM

Validation Report

1. INTRODUCTION

1.1 . Objective

The Nature Conservancy (TNC) has commissioned JACO CDM to validate the "Restoration of Giant Panda Habitat in Southwest Sichuan, China" (hereinafter the "Project").

The validation serves as design verification and is a requirement for all Panda Standard (PS) projects. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant PS and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria.

Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified GHG removals.

1.2. Scope

The validation scope is defined as an independent and objective review of the project form (PF), the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against PS requirements, rules and associated interpretations. JACO CDM has, based on the PS Version 1.0 employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and GHG removals.

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

The validation was conducted by the following validation team through the assessment of the PF and the additional documents listed in the Chapter 5 "References", also by the interviews with persons listed in the same Chapter.

The validation team consists of a validation team leader and validation team member(s) and following tasks have been assigned for the leader and the member(s):

Table 1 Tasks assigned to validation team leader/member(s)

	Assigned tasks
Team leader	(a) To plan and make effective use of human resources during the function; (b) To represent the validation team in communications with PPs and organize and direct team members; (c) To understand the validation functions and lead the team to reach conclusions on various aspects of validation process; and (d) To Prevent and resolve conflicts, if any, prepare and complete the validation report and handle all the possible follow-up actions, as appropriate.
Team member	(a) To plan and organize the work effectively and conduct the work within the agreed time schedule, to prioritize and focus on matters of significance; (b) To collect information through effective interviewing, listening, observing and reviewing documents, records and data; (c) To verify accuracy of collected information and confirm the sufficiency and appropriateness of gathered evidence to support audit findings and conclusions and prepare audit reports; and (d) To communicate effectively, either through personal knowledge of the language or through help of an interpreter.

The members of the validation team are indicated below.

The result of validation team activity was reviewed by the internal verifier.

Validation Team

Teruo FUKUDA	Validation team leader
Takahiro YUGUCHI	Validation team member

1.3. GHG Project Description

The proposed PS project activity will be implemented in Mamize Nature Reserve in Leibo County Sichuan Province. Located in the south edge of Giant Panda habitats, the project area was deforested during a large scale of commercial logging in 1960s, resulting in barren lands dominated by herbaceous plants and sporadic shrubs, with severe soil erosion. Leibo County has been one of national poverty counties, and is one of the key poverty alleviation counties within Wumengshan Poverty Region in the National Rural Alleviation and Development Plan (2011-2020). Local communities in the project areas live far below the poverty line of China.

To restore degraded habitats of the Giant Panda and other endangered wildlife, control soil erosion and improve livelihood of local communities, the proposed PS project activity plans to establish 500 hectare (ha) of forests by direct planting, started from 1 May 2013. The main planting tree species are spruce (*Picea brachytyla* (Franch.) Pritz. var. complanata (Mast.) Cheng) (124.3 ha) and abies (*Abies fabri* (Mast.) Craib) (375.7 ha). Both species used are native to local, without any invasive alien species or genetically modified organisms. It is expected to produce 161,881 tCO_2 equivalent of emission reduction within 60 years crediting period, with an annual mean of 2,698 tCO_2 equivalent. At the same time, the proposed PS project activity will comply and be certified with the Climate, Community and Biodiversity (CCB) Standard.

Both the operating entity (Mamize Nature Reserve Administration) and local farmers hold a view that the proposed PS project activity will contribute to enhance biodiversity conservation, reduce soil erosion and alleviate poverty, thus contribute to sustainable development. The audit of the CCB would demonstrate that the proposed PS project activity will not only benefit to climate change mitigation, but also have co-benefits to local communities and environmental conservation, consequently enhance climate change adaptation. . This activity belongs to the forestation and vegetation restoration in the industry rules of the use of the panda standard agriculture and forestry and other lands.

2. METHODOLOGY

The validation consists of the following three phases:
I. A desk review of the project design documentation
II. Follow-up interviews with project stakeholders
III. The resolution of outstanding issues and the issuance of the final validation report and opinion.

In order to ensure transparency, a validation protocol was customized for the project, according to the PS Version 1.0. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a PS project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described in Figure 1. The validation protocol is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfillment of validation protocol criteria or where a risk to the fulfillment of project objectives is identified. Corrective Action Requests (CAR) are issued, where:

i) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
ii) The applicable PS requirements have not been met; or
iii) There is a risk that emission reductions cannot be monitored or calculated.

The validation team may also use the term Clarification Request (CL), which would be where:
iv) Information is insufficient or not clear enough to determine whether the applicable PS requirements have been met.

Figure 1   Validation protocol tables

Validation Protocol Table 1: Mandatory Requirements			
Requirement	*Reference*	*Conclusion*	*Cross reference*
The requirements the project must meet.	*Gives reference to the legislation or agreement where the requirement is found.*	*This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the Validation report.*	*Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent Validation process.*

Validation Protocol Table 2: Requirement checklist				
Checklist Question	*Reference*	*Means of verification (MoV)*	*Comment*	*Draft and/or Final Conclusion*
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in seven different sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	*Gives reference to documents where the answer to the checklist question or item is found.*	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification is used when the validation team has identified a need for further clarification.*

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	*Ref. to checklist question in table 2*	*Summary of project owner response*	*Validation conclusion*
If the conclusions from the draft Validation are either a	*Reference to the checklist question number in Table 2*	*The responses given by the Client or other project participants*	*This section should summarize the validation team's*

| *Corrective Action Request or a Clarification Request, these should be listed in this section.* | *where the Corrective Action Request or Clarification Request is explained.* | *during the communications with the validation team should be summarized in this section.* | *responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".* |

2.1. Review of Documents

The Project Design Document submitted by The Nature Conservancy (TNC) and additional background documents related to the project design and baseline were reviewed. Document review was conducted from 5 March 2014. Documents reviewed are listed in Chapter 5 "References". The validation findings stated hereafter are based on the original PF Version 1.0, dated 03/08/2013 /1a/.

2.2. Follow-up Interviews

The validation team, Teruo FUKUDA and Takahiro YUGUCHI conducted on-site assessment in the period from 24 March 2014 to 28 March 2014, visited 10 plots among total 26 plots[1] (approx. 38%) and performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Meeting with representatives of TNC, Sichuan Forestry Department, Sichuan Forest Research and Design Laboratory, Administration of Sichuan Mamize Nature Reserve (Project owner), Shanshui Conservation Center and local villagers (Minzhu village) were held. Interviews to Xishuangbanna Forest Department, local DRC and villagers were conducted. /50/-/68/ Main topics of the interviews are summarized in Table 2.

Table 2 Interview topics

Interviewed organization	Interview topics
- Project Owner (Administration of Sichuan Mamize Nature reserve) - Consultant (The Nature Conservancy (TNC) China Program) - Consultant (The Shanshui Conservation Center)	➤ Organization of the company ➤ Project Overview (boundary, species, control of lands) ➤ Project starting date ➤ Current status of the project ➤ Feasibility Study ➤ Project Design ➤ Project Approval ➤ Selection of Species ➤ Methodology ➤ Baseline ➤ Additionality ➤ Monitoring ➤ Additional benefits ➤ Forestation in Sichuan Province ➤ Law, Regulation ➤ EIA & Sustainable development aspect of the project ➤ Project approval ➤ Stakeholder Consultation
- Sichuan Forestry Department (SFD) - Sichuan Forest Research and Design Laboratory	➤ Forestation in Sichuan Province ➤ Law, Regulation ➤ Environment analysis & Sustainable development aspect of the project ➤ Project approval ➤ Stakeholder Consultation

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[1] 26 plots: please refer to Table 1-5 of PF. There are 19 land Ids from L-01 to L19 and some Ids have more than 1 plot (ex. L09 has 2 plots)

Villagers	➢ How the villagers were informed about the implementation of the project ➢ Social and environmental impacts by the project ➢ History of the lands ➢ Current land use ➢ Biodiversity information ➢ Income ➢ Training for forestation

2.3. Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarification and any other outstanding issues which needed to be clarified for JACO CDM's positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by JACO CDM were resolved during communications between the Client and JACO CDM.

To guarantee the transparency of the validation process, the concerns raised and responses given are summarized in chapter 3 below and documented in more detail in the validation protocol in Appendix A.

Since modifications to the Project design document were necessary to resolve JACO CDM's concerns, the Client decided to revise the documentation. After revised PF Version 02 /1b/ was submitted and reviewed, JACO CDM issued the final validation report and opinion.

2.4. Internal Quality Control and Assurance

The draft validation report including the initial validation findings underwent a technical review before submitted to the project participants to ensure independence, impartiality, transparency, credibility and indiscrimination of the assessments.

3. VALIDATION FINDINGS

In the following sections the findings of the validation are stated. The validation findings for each validation subject are presented as follows:

1) The findings from the desk review of the original project form and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Validation Protocol in Appendix A.

2) Where JACO CDM had identified issues that needed clarification or that represented a risk to the fulfillment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in 24 Clarification Requests.

3) Where Clarification or Corrective Action Requests have been issued, the exchanges between the Client and JACO CDM to resolve these Clarifications or Corrective Action Requests are summarized.

4) The conclusions for each validation subject are presented.

The validation findings relate to the project design as documented and described in the PF.

3.1. Project Overview

3.1.1. Discussion

Project type and project activity

The proposed PS project activity is to restore degraded habitats of the Giant Panda and other endangered wildlife, control soil erosion and improve livelihood of local communities, the proposed PS project activity plans to establish 500 hectare (ha) of forests by direct planting, started from 1 May 2013. The main planting tree species are spruce (*Picea brachytyla* (Franch.) Pritz. var. complanata (Mast.) Cheng) (124.3 ha) and abies (*Abies fabri* (Mast.) Craib) (375.7 ha). Both species used are native to local, without any invasive alien species or genetically

modified organisms. The project activity is expected to contribute to the sustainable development of the project area.

The project is funded by Disney. (**CL 1**)

The project is under the project list in the MOU between State Forestation Administration and TNC. (**CL 2**)

Time boundary (**CL 3**)
Project start date: 01/05/2013
Crediting period: 60 years
Crediting period start date: 01/05/2013
Project term: 60 years

Project boundary

The proposed PS project activity is located within Mamize Nature Reserve in Minzhu Village, Changhe Township, Leibo County, Sichuan Province, with a total area of 500 ha on 19 parcels of lands. The project boundary is indicated in kmz file. (**CL 4**)

Project description

The validation team confirmed from the interviews with local forest bureau, PO and villagers also by the baseline survey report /10/ that the project area is a degraded barren land, there are no rare animals and endangered species in the project area. (**CL 5**)

The proposed Panda standard afforestation and reforestation project is undertaken by the following agencies and local villagers (Minzhu village),
   - Administration of Sichuan Mamize Nature Reserve (Project owner),
   - Sichuan Forestry Department (SFD),
   - TNC China program (Consultant),
   - Shanshui Conservation Center (Consultant),

Species selection and progress arrangement

The validation team confirmed from the interview with PP, SFD, TNC and local villagers that the species are selected to restore the original spruce and fir forests that were destroyed in 1960s. (**CL 6**)

The validation team confirmed from the observation of the nearby natural reserve of Panda habitat (Meigu Dafengding National Nature Reserve) that the original tree species are spruce and fir.

Project participant
Project participant is Administration of Sichuan Mamize Nature Reserve (Project owner).

Emission reduction ownership

The project owner (Mamize Nature Reserve) owns the credit that will be transferred to Disney. (**CL 7**)

3.1.2. Findings

Clarification Request 1
Please explain about the financial aspect of this project.

Response
The Disney will provide all fund needed for the project development, tree planting and forest management through contract between TNC and Disney, and contract between the Mamize Nature Reserve and TNC concerning the planting.

Conclusion
It was confirmed from the interviews with TNC and also by the minutes between Disney & TNC and the project plan that the project is funded by Disney. /7/, /8/, /50/, /51/

Clarification Request 2

Project approval by the local government or relevant authority is to be provided.

Response

The project is under the project list in the MOU between State Forestation Administration and TNC China. The MOU is shown to DOE as confidential information.

Conclusion

It was confirmed from the interview with TNC & SFD and the MOU that the project is under the project list in the MOU. /6/

Clarification Request 3

(1) Evidence of the start date is to be provided.

(2) FSR or planning document of the project and its approval is to be provided.

Response

(1) The starting date is demonstrated through (i) the contract between The Mamize Nature Reserve and TNC concerning the tree planting. (ii)The contracts are shown to DOE as confidential information; (iii) minutes of the discussion meeting between Disney and TNC China.

(2) Planting design document prepared by Sichuan Forest Research and Design Laboratory is provided.

Conclusion

(1) Evidences of the project start date were provided. It was confirmed that the project start date of PF (01/05/2013) is appropriate. /12/, /13/

(2) Project planting design document made by Sichuan Forest Research and Design Laboratory was provided. /11/

Clarification Request 4

(1) The boundary coordinates information is to be provided.

(2) GIS shp file is to be provided. The file includes the boundary coordinates information.

Response

Shp file and the boundary coordinates information are provided. /3/

Conclusion

GIS shp file was provided. /3/

The validator confirmed from the monitoring of typical boundary using GPS by sampling during on-site visit that the monitored data by sampling conform to the shp file data.

Clarification Request 5

Baseline survey report including information about the presence of any rare or endangered species is to be provided.

Response

Baseline survey report is provided.

As for the presence of rare or endangered species, Environmental impacts analysis register form and PRA report are provided.

Conclusion

Biodiversity baseline survey report and baseline survey report were provided. /9/, /10/

The report provides the monitored data about baseline tree biomass and shrub crown cover of each project area. It was confirmed that the data conforms to the baseline biomass stock at the project start. /2(a)/

Environmental impacts analysis register form /17/ and PRA report /18/ are also provided.

It was confirmed from these reports and from the interviews with PP, local forest department staff and villagers that there had been many rare or endangered species in the past (before 1960's) but there are no such species after deforestation in the project area.

Clarification Request 6

The reason of selecting specie is to be explained.

Response

The project is to restore original spruce and fir forests that were deforested in 1960s.

Conclusion

It was confirmed from the interviews with PP, consultant and villagers that major tree species in the original condition had been fir and spruce and suitable for Giant Panda Habitat. /50/-/68/

It was also confirmed from the observation of the nearby nature forest reserve "Meigu Da Fending" that fir and spruce is original species in the project area.

Clarification Request 7

(1) Please provide the evidences of the land ownership.
(2) It is to be confirmed with evidence that the control over all the project area is already established.
(3) Please explain about the authorization about the credit ownership.

Response

(1) Land certificate is provided
(2) The project lands are state owned and managed by the nature reserve, so the project participant have the control over all the project area
(3) the nature reserve owns the credit that will be transferred to Disney based on the contract between Disney and TNC

Conclusion

(1) The land certificate was provided which shows that the project land is located in the state owned Mamize Nature Reserve.
(2) It was confirmed from the interviews with PP that the project lands are managed by the Mamize Nature Reserve (PP) and PP has the control over all the project area.
(3) It was confirmed from the interviews with PP & TNC that the credit is owned by PP. It was also confirmed from the interviews with PP & TNC and the contract between Disney and TNC that credit will be transferred to Disney.

3.1.3. Conclusion

CL 1 to CL 7 was clarified.

The Project complies with the PS requirements.

3.2. Methodology applied

3.2.1 Discussion

(1) Methodology

The project applies the approved Panda Standard methodology PS-AFOLU.
Also, CDM consolidated A/R baseline and monitoring methodology "Afforestation and reforestation of lands except wet lands" (AR-ACM0003/ Version 2.0.0), its relevant tools and guidelines are applied. (**CL 8**)

(2) Methodology eligibility

Applicability of methodology

The validator confirmed that the project activity complies with the applicability conditions stipulated in the CDM consolidated methodology AR-ACM0003 version 02.0 /33/ and also the applicability conditions of "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (EB60 Annex 12) /40/ as below.

Table 3.1 Applicability conditions of AR-ACM0003 version 02.0.

Condition (a) : The land subject to the project activity does not fall in wet land category	The validators confirmed by the baseline survey report /10/ and the on-site visit that the project area is degraded grass land and does not fall in wet land category.
Condition (b): soil disturbance attributable to the PS project activity does not cover more than 10% of area.	Planting hole is 40cm diameter and spacing is 2 x 3 m. ∴Soil disturbance = 2.09% ＜10%

Applicability condition of "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities". (EB60 Annex 12)

Table 3.2 Applicability conditions of Tool for estimation of SOC

(a)(i) do not fall into wet land category (ii) do not contain organic soils as defined in "Annex A: glossary" of the IPCC GPG LULUCF 2003 (iii) are not subject to any of the land management practices and application of inputs as listed in the Table 1 and 2	(i) Same as condition a of table 3.1 above. (ii) The validator confirmed by the baseline survey report /10/ and on-site visit that organic soils are not contained. (iii) The validator confirmed from the interviews with PP, consultant and villagers that the project area is remote from the village and has been degraded grass land since 1960's and has not been used. Hence it was confirmed that the project areas are not subject to any of the land management practices and application of inputs as listed in Table 1 and 2 of the tool.
(b)(i) Litter remains on site and is not removed in the A/R CDM project activity (ii) Soil disturbance attributable to the A/R CDM project activity, if any, is: - In accordance with appropriate soil conservation practice, e.g. follows the land contours; - Limited to soil disturbance for site preparation before planting and such disturbance is not repeated in less than 20 years.	(i) The validator confirmed from the interviews with PP and villagers that the project area is remote from village and litter will not be collected. (ii) The validator confirmed by the on-site visit that the planting of trees follows the contours. The validator confirmed from the interviews with PP that the soil disturbance is limited for site preparation before planting.

Land eligibility demonstration
PS-AFOLU requires that the lands to be forested are not forest over 10 years prior to the start date of the project and requires to demonstrate land eligibility with documented evidences.
Land eligibility is appropriately demonstrated based on "Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities" (CDM EB 35 Annex 18) /34/ (**CL 9**)

(3) Sources of GHG emission and carbon pools
GHG emission sources and carbon pools comply with the CDM consolidated A/R baseline and monitoring methodology "Afforestation and reforestation of lands except wet lands" (AR-ACM0003/ Version 2.0.0)

3.2.2. Findings

Clarification Request 8

It is to be confirmed whether the project apply AR-ACM0003/ Version 01.0.0 or AR-ACM0003/ Version 2.0.0. (The validity of AR-ACM0003/ version 01.0.0 is 31/05/2014.)

Response

The project form is revised accordingly.

Conclusion

It was confirmed from the PF version 2.0 that the methodology version was revised to version 02.0.0.

Clarification Request 9

(1) Please provide evidences of the history of the project land.
(2) Please provide LANDSAT images
(3) PRA report relevant part
(4) It is to be confirmed whether the eligibility conditions of lands indicated in PS-AFOLU, Methodology Category F-V version 1.0 is applicable or not.

Response

(1) in PRA report the information was provided.
(2) 1989 Landsat map provided
(3) PRA report provided
(4) Not applicable as we used the AR-CDM methodology AR-ACM0003/V02.0.0.

Conclusion

The validator was provided with PRA report.

The validator confirmed from the interviews with PP, consultant and villagers in addition to the PRA report, baseline survey report and satellite image of 1989 & 2010 that the project complies with the eligibility conditions of A/R CDM (EB 35 Annex 18) and the eligibility conditions of PS-AFOLU methodology Category F-V version 1.0.

Clarification Request 10

Please provide project planting species/management plan indicated in the PF section 2.5.

Response

Project plant and management design document (by Sichuan Forestry Inventory and Planning Institute) is provided.

Conclusion

The validator confirmed by the baseline survey report /10/ and Project plant and management design document (by Sichuan Forestry Inventory and Planning Institute)/11/ that the baseline category of PF complies with baseline survey report and Project plant and management design document. The validator confirmed from the observation of typical project plots (10 among 26 plots) that the baseline stratification in the PF table 2-3 complies with the present situation of the crown cover of bush.

3.2.3 Conclusion

CL 8, CL 9 and CL 10 were clarified.

The Project complies with the PS requirements.

3.3. Baseline Scenario and Additionality

3.3.1. Discussion

The barrier analysis is described in accordance with the 5 steps indicated in the "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities" (version 01) (EB35 Annex 19)

Step 0: Preliminary screening based on the starting date of the A/R project activity

   2011: project identification by TNC China Program and Sichuan Forestry Department

Oct. 2011: Meeting of Walt Disney, SFD and TNC /8/
Oct. 2012: Baseline survey report is made by Shanshui /10/
May 2013: Project start /16/

The validator confirmed from the interviews with PP, consultant and relevant documents/ records that the project start date of 01/05/2013 is correct.

The validator confirmed from the meeting minutes between Walt Disney and TNC on 24/10/2011 that the proposed PS project activity had been considered before project start date (01/05/2013) and the project start date is after the date of PS-AFOLU requirements (01/01/2005). Hence the start date complies with the PS-AFOLU requirements. (CL 11)

Step 1: Identification of alternative land use scenario to the proposed PS project activity

The validator confirmed from the interviews with PP, SFD, villagers and also by the PRA /18/ that the primary forests in the project area were destroyed in 1960s due to commercial logging for railway and the project area has been degraded grasslands. There has not been reforestation on-state owned land including lands managed by nature reserve. The validator confirmed from the interviews with PP, SFD and the certificate of landownership /5/ that the land is state owned forest and other land uses such as agriculture and grazing are prohibited.

Hence, the validator considers that following description of alternative land use in PF is appropriate.

(i)   the proposed project not undertaken as a PS project;

(ii)   Continuation of current barren lands

Step 2: Barrier analysis

The validator confirmed from the interviews with PP, consultant and SFD that the project lands are state owned and managed by Sichuan Mamize Nature Reserve. In such state owned natural reserve, Natural Forest Conservation Program and Grain for Green program were not implemented in the remote and severely degraded nature reserve except for the Novartis A/R CDM project (CDM reference No. 9563)[2] which is partly located in Mamize Nature Reserve.

It was also confirmed from the interviews with PP, consultant and SFD that debt funding is not available due to the high risk and the economical unattractiveness. /50/-/61/

Thus, it was confirmed that the proposed PS project is facing the investment barrier and the alternative land use "the proposed project not undertaken as a PS project" can be eliminated. Hence, it is appropriate to conclude that the baseline scenario is "Continuation of current barren lands".

Step 3: Investment Analysis
Not applicable

Step 4: Common practice analysis

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[2] Novartis CDM project "Afforestation/Reforestation on Degraded Lands in Southwest Sichuan, China" is located near to the proposed A/R PS project. Brief comparison is as below.

	Proposed PS project	Novartis CDM project (CDM ref. 9563)
PP	Administration of Sichuan Mamize Nature Reserve	Daduhe Forestation Bureau, Novartis Pharma AG
Area (ha)	500	4196.8
Starting date	01 May 2013	01 Aug. 2011
Location	Mamize Nature Reserve	5 counties (Gaohuo, Yuexi, Zhaojue, Meigu, Leibo) 3 provincial nature reserve (Yuexi Shenguozhung, Ganeuo Maanshan, Leibo Mamize)
Species	Native to project area (Fir, Spruce)	Native to project area (Fir, Spruce, Armand pine, Poplar, Cryptomeria, Alder)

The validator confirmed from the interviews with PP, consultant and SFD that there are some forestations in the project county but they are planting fast growing trees for timber and no forestation of native trees such as Fir and Spruce that grow very slow. (**CL 13**)

In this situation, it is confirmed that the project is not a common practice.

Hence, it is concluded that the proposed PS project activity is not a baseline scenario and additional.

3.3.2. Findings

Clarification Request 11

(1) The contract date of baseline survey is to be clarified with its evidence.
(2) The evidence of above activity by TNC and Sichuan Forestry Department is to be provided.
(3) Meeting minutes between Disney is to be provided.

Response

(1) Copy of contract between TNC and Shanshui is provided.
(2) Contract between the Nature reserve and Sichuan Forestry Inventory and Planning is provided.
(3) Meeting minutes between Disney and TNC on 24/10/2011 is provided.

Conclusion

(1) The copy of contract between TNC and Shanshui was provided.

(2) Contract between the Nature reserve and Sichuan Forestry Inventory and Planning is provided.

(3) Meeting minutes between Disney and TNC was provided. The validator confirmed from the meeting minutes between Walt Disney and TNC on 24/10/2011 that the proposed PS project activity had been considered before project start date (01/05/2013) and the project start date is after the date of PS-AFOLU requirements (01/01/2005).

Hence the start date complies with the PS-AFOLU requirements.

Clarification request 12

(1) It is to be confirmed that there is no reforestation on state-owned land in the past and near the project area.

(2) Please inform about the examples of the timber plantation or cash tree garden near the project area, if available.

Response

(1) The nature reserve has relatively high forest coverage and is not the priority area for forestation by the government.
(2) seen on the way to the project site

Conclusion

(1) The validator confirmed by the Sichuan Forestry Department /52/-/55/ that the nature reserve has relatively high forest coverage and is not the priority area for forestation by the government.

(2) Confirmed during the on-site visit.

Clarification request 13

(1) Inflation data in China in recent years is to be provided.
(2) Please provide examples of the forestation on lands similar to project lands indicated in the PF Section 3, Step 4.

Response

(1) The government release CPI every month which can be check through website. In the last 2-3 years the cost for labour, seedlings and transportation have doubled based on the information from the nature reserve

(2) There was no forestation in the nature reserve as confirmed by the Sichuan Forestry Department.

Conclusion

(1) The validator confirmed from the interviews with PP and consultant that the price of seedlings, other material cost, labor cost and transportation cost are increasing rapidly such as below.

Inflation rate: 2013 approx. 3%, 2014 Feb. approx. 2.5%
Seedlings (compared with 2~3 years before): approx. 1.8 times increased
Other material cost (compared with 2~3 years before): approx. 2 times
Transportation and labor cost (compared with 2~3 years before): approx. 2 times

(2) The validator confirmed from the interviews with PP, consultant and SFD that there are some forestations in the project county but they are planting fast growing trees for timber and no forestation of native trees such as Fir and Spruce that grow very slow. In addition, the validator confirmed from the interviews with PP, consultant and SFD and on-site visit that the project areas are located in forest line of high altitude such as 3000 ~ 3400m and the environment conditions are very severe, thus great care is necessary to achieve the planned survival rate. Thus there is no similar forestation in the nature reserve except Novartis A/R CDM project.

3.3.3. Conclusion

CL 11, CL 12 and CL 13 were clarified.

It was confirmed that the proposed project activity is additional as per the PS-AFOLU standard and the Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01) (EB35 Annex 19) /37/

3.4. Net emission reduction/ removals

3.4.1. Discussion

(1) Net Baseline Scenario GHG Emission Reductions/removals

The validator confirmed that the baseline scenario GHG reductions/removals are calculated in accordance with the AR-ACM0003 version 02.0. /33/

The Net Baseline Scenario GHG Emission Reductions/Removals (baseline removals) are the sum of the changes in carbon stocks in the selected carbon pools within the project boundary that would have occurred in the absence of the PS forestation project activity, i.e.,

$$\Delta C_{BSL,t} = \Delta C_{TREE\_BSL,t} + \Delta C_{SHRUB\_BSL,t} + \Delta C_{DW\_BSL,t} + \Delta C_{LI\_BSL,t}$$

(4.1)

Where:

$\Delta C_{BSL,t}$ Baseline removals in year t; tCO$_2$-e

$\Delta C_{TREE\_BSL,t}$ Change in carbon stock in baseline tree biomass within the project boundary in year t, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"; tCO$_2$-e

$\Delta C_{SHRUB\_BSL,t}$ Change in carbon stock in baseline shrub biomass within the project boundary, in year t, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"; tCO$_2$-e

$\Delta C_{DW\_BSL,t}$ Change in carbon stock in baseline dead wood biomass within the project boundary, in year t, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities"; tCO$_2$-e

$\Delta C_{LI\_BSL,t}$ Change in carbon stock in baseline litter biomass within the project boundary,

in year *t*, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities"; tCO_2-e

The validator confirmed by the on-site visit and interviews with PP, consultant and villagers that $\Delta C_{TREE\_BSL,t}$, $\Delta C_{SHRUB\_BSL,t}$, $\Delta C_{DW\_BSL,t}$ and $\Delta C_{LI\_BSL,t}$ are 0 as explained below.

$\Delta C_{TREE\_BSL,t}$	There were 31 pre-project living trees. However all of them were in the state of mature or over-mature, the carbon stock changes of these baseline trees were assumed to be zero. , i.e., $\Delta C_{TREE\_BSL,t} = 0$. as a result, $\Delta C_{DW\_BSL,t}$ =0, and $\Delta C_{LI\_BSL,t}$ =0 /10/
$\Delta C_{SHRUB\_BSL,t}$	The project lands are degraded grass lands and are expected to remain degraded, hence changes in carbon stock of shrub biomass are conservatively assumed to be zero. $\therefore \Delta C_{SHRUB\_BSL,t}$ =0
$\Delta C_{DW\_BSL,t}$ $\Delta C_{LI\_BSL,t}$	As explained above, $\Delta C_{TREE\_BSL,t}$ is 0. As a result $\Delta C_{DW\_BSL,t}$ and $\Delta C_{LI\_BSL,t}$ are also counted as 0.

Hence, the validator confirmed that change in the baseline carbon stock $\Delta C_{BSL,t}$ is assumed to be zero.

(2) Project scenario net GHG emission reduction/ removals

The validator confirmed that the project scenario GHG reductions/removals are calculated in accordance with the AR-ACM0003 version 02.0. /33/

$$\Delta C_t = \Delta C_{TREE\_PROJ,t} + \Delta C_{SHRUB\_PROJ,t} + \Delta C_{DW\_PROJ,t} + \Delta C_{LI\_PROJ,t} + \Delta C_{SOC\_AL,t} \qquad (4.2)$$

Where,

ΔC_t	Change in carbon stock in all selected carbon pools in the project scenario, in year *t*; tCO_2-e
$\Delta C_{TREE\_PROJ,t}$	Change in carbon stock in tree biomass in project, in year *t*, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"; tCO_2-e
$\Delta C_{SHRUB\_PROJ,t}$	Change in carbon stock in shrub biomass in project, in year *t*, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"; tCO_2-e
$\Delta C_{DW\_PROJ,t}$	Change in carbon stock in dead wood biomass in project, in year *t*, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities"; tCO_2-e
$\Delta C_{LI\_PROJ,t}$	Change in carbon stock in litter biomass in project, in year *t*, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities"; tCO_2-e
$\Delta C_{SOC\_AL,t}$	Change in carbon stock in SOC in project, in year *t*, in areas of land meeting the applicability conditions of the tool "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities", as estimated in the same tool; tCO_2-e
t	1, 2, 3, … *t** years elapsed since the start of the PS project activity

(i) Change in carbon stock in tree biomass ($\Delta C_{TREE\_PROJ,t}$)

JACO CDM

Validation Report

The tree biomass is calculated using following formula (for forestry inventory in 1992, 1997, 2002 and 2007) which is the same formula for Fir and Spruce used in A/R CDM project "Afforestation/Reforestation on Degraded Lands in Southwest Sichuan, China" (CDM reference No. 9563) /49/

$$V_S = 0.33050596446 \cdot \left(1 - e^{(-0.029683022346463 \cdot A)}\right)^{3.094640905157} \tag{4.3}$$

Where:

A Age of trees, year

V_S Standing volume of tree at age A, m^3/tree

The validator confirmed that the carbon stock in tree biomass is correctly calculated applying above formula using spreadsheet developed by the Biocarbon fund of the World Bank. /2/

The validator confirmed by the baseline survey report /10/ that there were 31 pre-project living trees and their carbon stock is estimated 12.0 tCO$_2$. /2/ The carbon stocks of these pre-project trees are assumed to disappear. It is conservative and appropriate.

(ii)   Change in carbon stock in shrub ($\Delta C_{SHRUB\_PROJ,t}$)

The validator confirmed by the baseline survey report /10/ and on-site visit that shrub crown cover in 160.8ha (for stratum BSL-1) is less than 5% for which shrub biomass is considered negligible as per A/R CDM methodological tool[3] /38/. For other project area of 339.2ha (stratum BSL-2, 3 and 4) whose crown covers are more than 5%, pre-project biomass stock of shrub are calculated as 453.1 tCO$_2$ in accordance with the A/R CDM methodological tool./2/,/38/

The carbon stock in all pre-project shrub is assumed to disappear at the project start.
It is conservative and appropriate.

(iii)   Change in carbon stock in dead organic matter and litter ($\Delta C_{DW\_PROJ,t}$)

According to the equation (9) of the tool "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities (version 02.0.0)" /39/, $C_{DW\_PROJ,t}$ is calculated as below.

$$C_{DW\_PROJ,t} = C_{TREE\_PROJ,t} * DF_{DW}$$

$$\therefore \Delta C_{DW\_PROJ,t} = \Delta C_{TREE\_PROJ,t} * DF_{DW}$$

DF_{DW} is default factor expressing carbon stock in dead wood as a % of carbon in tree biomass. In the proposed PS project, 8% is applied as DF_{DW}. This value is for temperate /boreal area of the tool and appropriate.

Also, according to the equation (15) of the same tool /39/, $C_{LI\_PROJ,t}$ is calculated as below.

$$C_{Li\_PROJ,t} = C_{TREE\_PROJ,t} * DF_{LI}$$

$$\therefore \Delta C_{LI\_PROJ,t} = \Delta C_{TREE\_PROJ,t} * DF_{LI}$$

DF_{LI} is default factor for the relationship between carbon stock in litter as a % of carbon stock in living trees. In the proposed PS project, 9.03% is applied as DF_{LI}. This value is for national biomass database for plantation and appropriate. /2/

(iv)   Change in carbon stock in mineral soils ($\Delta C_{SOC\_AL,t}$)

The validator confirmed that the carbon stock change in soil is calculated in accordance with the A/R methodological "Tool for estimation of change in soil organic carbon stocks due to the

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[3] Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities (version 03.0.0) (EB60 Annex 13) /38/

JACO CDM

Validation Report

implementation of A/R CDM project activities (version 01.1.0) and approved spreadsheet (EB60 Annex62)" /2/, /40/

∴ The soil organic carbon will increase by 0.8 tC/ha/y within 20 years after planting.

(v) Estimates of the increase in GHG emissions by sources

The validator confirmed from the interviews with PP, villagers and on-site visit that there is no burning of woody biomass during site preparation and forest management. Hence, there will be no GHG emissions from clearing and burning of existing vegetation due to implementation of the PS project activity based on the applied methodology "Estimation of non-CO_2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity (version 04.0.0)" /41/.

∴$GHG_E=0$

(vi) Estimates of the increase in GHG removals

The validator confirmed that the GHG removals are correctly calculated as explained above (formula (4.2) and (i) – (v)) and aggregated in Table 4-1 of the PF.

The validator confirmed that the carbon stock changes, emission by sources and project removals in the 60 years project period are calculated below.

Carbon stock changes (tCO$_2$e)				Emissions by sources (tCO$_2$e)	Project removals (tCO$_2$e)
Biomass	Dead wood	Litter	SOC		
113,192	9,093	10,263	29,333	0	161,881

Annual average over the 60 years crediting period = 161,881/60 = 2,698 tCO$_2$e

(4) Leakage

The validator confirmed that the project area is located in natural reserve and no agriculture and grazing are allowed. Also, the area is degraded barren lands and there are no agricultural activities. Hence, it is appropriate to take the leakage due to displacement of pre-project agricultural activities are zero and there is no leakage.

(5) Uncertainty

It is to be confirmed at the verification stage that the uncertainty level is 10% at 90% confidence interval as per the PS-AFOLU requirements.

(6) Net emission reduction/removals

Based on above estimate of GHG removals and baseline, net GHG removals during 60 years operation is 161,881 tCO$_2$e. /2/, /3/

3.4.2 Findings
Clarification Request 14

(1) Please inform the reference of the formula (4.3)

(2) Please justify application of following parameters for the project tree species with evidence.

   BEF_j:

   D_j:

   R_j:

   CF_{TREE}:

Response

(1) This formula is from Novartis Project PDD

(2) These data are updated values of the China's second national communication as described in the AR methodology for China's voluntary carbon trading scheme.

Conclusion

(1) The validator confirmed that the same formula is used in the proposed PS project and Novartis CDM project. /49/

(2) The validator was provided with the CCER methodology documents and confirmed each data is correctly reflected in the PF as below. /15/

	BEF	D	R	CF
FIR	1.316	0.366	0.174	0.5
Spruce	1.734	0.342	0.224	0.521

Clarification Request 15

It is to be confirmed that there is no displacement caused by the project activity.

Response

There is no cropping activity on project land. Based on the PRA, local community does not have grazing on the project lands

Conclusion

Cropping: It was confirmed from the interviews of villagers and on-site visit that there is no cropping activity.

Grazing: The grazing in the nature reserve is illegal. However, in some part of the project area which is located in the nature reserve, grazing was observed during the on-site visit.

It was explained by local forestry bureau that the illegal grazing has been reducing. It was also explained that considering the historical use of the project land for grazing in the past, the local government is continuing the effort to reduce the grazing by a step by step manner.

It was confirmed from the on-site visit that all areas surrounding the project lands are degraded or degrading. Hence, animals expected to be displaced to degraded or degrading areas and the increase in GHG emissions due to displacement of pre-project grazing activities attributable to the PS activity is insignificant as per the CDM EB 51 Annex 13 "Guidance on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant".

3.4.3. Conclusion

CL 14 and CL 15 are clarified. The project complies with the PS requirements.

3.5 Permanence and risk mitigation

3.5.1 Discussion

(1) Risk assessment

At present the Panda Standard Risk Analysis Tool is not published, it is appropriate to apply the risk analysis method indicated in the PS Methodology Category F-V "Forestation of degraded land using species including bamboo" /32/.

In the project activity fire risk is applied. It is considered that other risks are unlikely.

It was confirmed that the formula is correctly applying above methodology.

According to above methodology, fire risk in Sichuan Province is 0.020%.

Therefore, the RISK is as below.

$RISK = RISKfire + PT/30 \times 5\% = PT \times Ffire + PT/30 \times 5\% = 60 \times 0.02\% + 60/30 \times 5\%$
$= 1.2 + 10 = 11.2\%$

(2) Risk mitigation

Based on above assessment (1), number of PS credit during 60 years is calculated as below after deduction 11.2% PS buffer pool is as below.

$PS\ credit = 161,881 \times (1 - 11.2\%) = 143,750\ tCO_2e$

3.5.2 Findings

None.

3.5.3 Conclusion

RISK is suitably calculated as 11.2% and PS credit during 60 years is calculated as 143,750 tCO_2e after deduction of 11.2% buffer.

3.6. Monitoring Plan

3.6.1. Discussion

3.6.1.1. Monitoring frequency

The first monitoring and verification will be conducted in the year 2033, with a subsequent monitoring and verification interval of 10 years and it complies with the requirements of PS methodology /32/.

3.6.1.2. Monitoring of project implementation

(1) Monitoring of Project Boundary

Project boundary is monitored using GPS and GIS as per the requirements of CCER AR Methodology AR-CM-001-V01./15/ (**CL 17**)

(2) Monitoring of project implementation

The monitoring activity is planned to be conducted using "Monitoring card" for each sub-compartment. The card includes necessary items for monitoring the project implementation and appropriate.

(3) Operating procedure and quality control/quality assurance (QA/QC)

The QA/QC procedures contained in National and local regulations will be applied.

3.6.1.3. Sample design and stratification

(1) Sample volume:

Sampling volume is decided based on the PS methodology /31/ and which specifies that the targeted precision level for tree biomass estimation shall be ±10% of the mean at a 90% confidence level. Also, it is designed using the A/R Methodological Tool "Calculation of the number of sample plots for measurements within A/R CDM project activities (version 02.1.0). /46/ It was confirmed that the calculation of the sample volume conforms to the A/R Methodological Tool using appropriate parameters. /2/ (**CL 20**)

(2) Plot size

It is stated in PF that plot size is 20m x 20m.

This size conforms to the plot shape and size of IPCC Good Practice. (4.3.3.4.2 /47/)

(3) Plot location

Permanent sample plots are designed with procedures of randomly selected start point.

(4) Volume equations

Following volume equations are used to calculate the tree volume after monitoring DBH and H by sample plots. The validator confirmed that these equations are used in the local forestry inventory and they are also applied to the A/R CDM project activity (CDM ref. 9563). /49/

- Spruce: $V = 0.000056790543 \cdot \mathrm{DBH}^{1.8517326} \mathrm{H}^{1.0334624}$
- Fir: $V = 0.000063219426 \cdot \mathrm{DBH}^{1.9006108} \mathrm{H}^{0.9626592}$

Where

V   standing volume of single tree in sampling plot; $m^3.tree^{-1}$

DBH   diameter at breast height, cm

H   tree height, m

3.6.1.4. The monitoring of baseline scenario / carbon removals

It was confirmed that the baseline monitoring is not required by the applied standard (CCER AR Methodology AR-CM-001-V01 /15/ and PS bamboo methodology). /32/

Hence monitoring of scattered tree is not planned and it complies with the PS methodology.

3.6.1.5. The monitoring of project scenario emissions/ carbon removals

(1) Calculate the changes of carbon stock in project boundary

Following data are monitored:

Api: area of sample plot p in stratum i

Ai: area of stratum i

DBH: breast height diameter

H: Height of trees

By above measurements, the volume of trees is calculated using the equations as explained 3.6.1.3 above and in table 4-6 of the PF.

3.6.1.6. Leakage monitoring

Leakage monitoring will not be conducted and it is in line with CCER AR Methodology AR-CM-001-V01 /15/ and PS bamboo methodology.

3.6.2. Findings

Clarification Request 16

Please justify that the monitoring frequency of 10 years is appropriate. (Ref. AR-ACM0003 and IPCC GPG).

Response

The fir and spruce grow very slow in the project area. It is not wise to use shorter interval.

Conclusion

CCER AR Methodology AR-CM-001-V01 /15/ and the Panda Standard, Methodology Category – F-V "Forestation of degraded land using species including bamboo" requires about the monitoring frequency as "Every 3-10 years since the year of the first verification" /32/. Hence, considering the slow growing of fir and spruce the monitoring frequency of 10 years is appropriate.

Clarification Request 17

GIS and calculation of project area are to be demonstrated during the on-site visit.

Response

GIS was demonstrated on GIS platform.

Conclusion

The GIS was demonstrated. The validator confirmed that the GIS information is consistent with the PF.

Clarification Request 18

Please provide the monitoring card form, if already available.

Response

Will provide during verification.

JACO CDM

Validation Report

Conclusion

OK, it is to be provided at the verification.

Clarification Request 19

(1) Please explain about management structure including each party's roles and responsibilities.
(2) Procedures of training and records are to be explained.
(3) Procedures for measurement and reporting are to be explained.
(4) procedures for data maintenance and storage
(5) procedures for dealing with possible monitoring data adjustments and uncertainties
(6) procedures identified for project performance reviews before data is submitted for verification, internally or externally

Response

(1) It will be explained during on-site audit
(2) Training will be provided
(3) It will be developed before monitoring
(4) The data will be archived and stored in the nature reserve
(5) It will be included in SOP
(6) It will submit to DOE during verification

Conclusion

(1) Management structure was explained by Mamize Nature Reserve.

(2) Training records of planting work, etc. were provided.

(3) – (6) OK, these are to be discussed at verification.

Clarification Request 20

The default value 30% as the standard deviation of biomass in each stratum is to be justified.

Response

This is based on experience from AR-CDM project such as in AR CDM projects Guangxi, Inner Mongolia.

Conclusion

The validator confirmed by the data of "Facilitating Reforestation for Guangxi Watershed Managed in Pearl River Basin" A/R project (CDM ref. no. 0547) and "Afforestation of Degraded Shengle Ecological Zone in Helinge'er Inner Mongolia, China" A/R project (CDM Ref.no. 9525) that 30% as the standard deviation of biomass is conservative.

Clarification Request 21

Please inform the tree volume calculation formula along with the reference.

Response

The formulae are the same as those in Novartis PDD (CDM ref. 9563). The reference has been provided in the revised PF.

Conclusion

The validator confirmed that the volume calculation formula of the proposed PS project activity is the same as those used in Novartis CDM project (CDM ref. no.9563).

3.6.3. Conclusion

CL 16 to CL 21 were clarified.

The project complies with the PS requirements.

3.7. Additional benefits

3.7.1. Discussion

(1) Social impacts

It was confirmed from the interviews with PP, SFD and villagers that the following major social benefits of the project activity are expected.
- income increase
- employment
- technical training for plantation

The validator also confirmed that villagers belong to "Yi" minority people and all villagers are involved including women in the Minzhu village where the project is implemented.

The validator confirmed from the interviews with PP, SFD and villagers that there are no religious and cultural resources in the project area.

(2) Environmental impacts

- Conservation of biodiversity and ecosystem: it was confirmed from the interviews with PP, SFD and villagers that the project will contribute to enhance biodiversity, in particular, to restore the Giant Panda habitat and conservation by increasing forest ecosystem landscape connectivity

- Erosion control: It is confirmed from the interviews with PP, SFD and villagers that the proposed PS project activity contribute to absorb much water and the trees will prevent land erosion.

(3) Stakeholder comments

The validation team confirmed by the PRA report /18/ and interviews with PP, consultant and villagers that Minzhu village, Changhe township, Administration of Mamize Nature Reserve and local forestry bureau were involved. PRA report was provided. /21/ (**CL 22**)

It was confirmed from the interviews with villagers that stakeholder comments were conducted as below:
- Explanation about the project activity by PO and local government staff
- Enquiry by questionnaire distribution

Based on the PRA report and the interviews with villagers /65/-/68/ that the stakeholder comments procedures are appropriate and the project is beneficial for villagers. Major benefit is income by plantation work provided by villagers including women and getting the technology about plantation work. It was also confirmed from the interviews with villagers that there is no negative impact by the project activity.

3.7.2. Findings

Clarification Request 22

 (1) Socio-economic impact analysis report is to be provided,
 (2) It is to be confirmed whether the socio-economic impacts monitoring will be conducted regularly.

Response

(1) Socio-economic impact analysis is included in the PRA report
(2) the socio-economic impacts monitoring is included in CCB PDD.

Conclusion

PRA report /18/ and CCB PDD were provided. /4/

Clarification Request 23

Environmental impacts analysis report is to be provided, if available.

Response

Will be available before registration, which will be from environmental protection bureau at county level.

Conclusion

Environmental impacts analysis register forms for the report were provided./17/

Clarification Request 24

The procedures for stakeholder consulting are to be explained with evidences.

Response

PRA SOP provided.

Conclusion

PRA was provided. It was confirmed that the stakeholder consultation process is appropriate.

3.7.3. Conclusion

CL 22, CL 23 and CL 24 were clarified.

The project complies with the PS requirements.

4. **VALIDATION OPINION**

JACO CDM Co., Ltd. has performed the validation of "Restoration of Giant Panda Habitat in Southwest Sichuan, China" (herein after the "Project").

The purpose of the Project is to implement a Panda Standard (PS) AFOLU project in Mamize Nature Reserve in Leibo County, Sichuan Province, China. The project area was deforested during a large scale of commercial logging in 1960s, resulting in barren lands. To restore degraded habitats of the Giant Panda and other endangered wildlife, control soil erosion and improve of local communities, the proposed PS project activity plans to establish 500 ha of forests by direct planting of native trees. It is expected to produce 161,881 tCO_2e of long-term credits in 60 years crediting period, with an annual mean of 2,698 tCO_2e.

The validation is the independent third party assessment of the project design, and is the requirement for all PS projects. The project's compliance with the relevant PS and host country criteria are validated in order to confirm that the project design is sound and reasonable and meet the stated and identified criteria.

This validation report summarizes the findings of the validation.

The validation consisted of the following three steps:
  i)   desk review of the project design, the baseline and the monitoring plan etc.,
  ii) follow-up interviews with project stakeholders
  iii) the resolution of outstanding issues and issuance of the final validation report and the opinion.

The responses to 24 Clarification Requests to the PF version 1.0 (03/08/2013) were satisfactorily provided by the project participants and the original PF was revised.

In summary, it is JACO CDM's opinion that the Project as are described in the revised PF Version 3.0 (10/12/2014) meets all relevant PS requirements for the PS and host country criteria, and correctly applies the CDM Methodology AR-ACM0003 version 02.0.0.

Hence, JACO CDM requests the registration of the "Restoration of Giant Panda Habitat in Southwest Sichuan, China".

26 December, 2014

Michio HIRUTA

Representative Director

JACO CDM

5. REFERENCES

Category 1 Documents:

Documents provided by the Client that relate directly to the GHG components of the project:

/1a/ PF "Restoration of Giant Panda Habitat in Southwest Sichuan, China" Version 1.0 (03/08/2013)

/1b/ PF "Restoration of Giant Panda Habitat in Southwest Sichuan, China" Version 2.0 (14/06/2014)

/1c/ PF "Restoration of Giant Panda Habitat in Southwest Sichuan, China" Version 3.0 (10/12/2014)

/2/ GHG removal calculation spreadsheet
   (a) Pre project woody vegetation (Pre-trees, Shrub)
   (b) LULUCF Sequestration Input (Fir, Spruce)
   (c) DW, LI, SOC
   (d) ARWG SOC tool Multizone
   (e) Ex-ante estimation summary
   (f) Number of Sampling Plots

/3/ Kmz file for the project area

/4/ CCB PDD "Restoration of Giant Panda Habitat in Southwest Sichuan, China"

/5/ Certificate of land ownership (by state government)

/6/ Meeting minutes between Disney and SFD (2011/10)

/7/ Project development into SFD (2012/3/19)

/8/ Meeting minutes between TNC and State Forest division for 2013/2014

/9/ Biodiversity baseline survey report (Shanshui, 2012/10)

/10/ Baseline survey report (Shanshui, 2012/10)

/11/ Planting design (Sichuan Forest Design Laboratory, 2013/4)

/12/ Contract for service between TNC and Shanshui (2013/4/15)

/13/ Contract for planting design (PP and Sichuan Forest Design Laboratory, 2013/6/15)

/14/ Contract between PP and farmer (examples,

/15/ CCER AR Methodology AR-CM-001-V01 (2013/10)

/16/ Photographs (Examples: training & tree planting (2013/5/3 & 2013/5/28))

/17/ Environmental impacts analysis register form (2014/6/4)

/18/ PRA Report (TNC, Shanshui, SFD, 2012/11)

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/30/ Panda Standard version 1

/31/ Panda Standard Sectoral Specification for Agriculture, Forestry (PS-AFOLU) (2011)

/32/ Panda Standard, Methodology Category – F-V "Forestation of degraded land using species including bamboo"

/33/ A/R Large-scale Consolidated Methodology "Afforestation and reforestation of lands except wetlands (version 02.0) (AR-ACM0003)

/34/ Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities (version 01) (EB35 Annex 18)

/35/ Guidance on application of the definition of the project boundary to A/R PS project activities (version 01.0) (EB44 Annex 16)

/36/ Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities (version 01) (EB41 Annex 15)

/37/ Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01) (EB35 Annex 19)

/38/ Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities (version 03.0.0) (EB60 Annex 13)

/39/ Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R

CDM project activities (version 02.0.0) EB67 Annex 23)
/40/ Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities (version 01.1.0) and approved spreadsheet (EB60 Annex62)
 (https://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-16-v1.1.0.pdf/history_view)
/41/ Estimation of non-CO_2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity (version 04.0.0) (EB65 Annex 31)
/42/ Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity (version 01, EB51, Annex 15)
/43/ Guidelines on conditions under which increase in GHG emissions attributable to displacement of pre-project crop cultivation activities in A/R CDM project activity is insignificant (version 01.0) (EB51 Annex 14)
/44/ Guidelines on conditions under which increase in GHG emissions attributable to displacement of pre-project grazing activities in A/R CDM project activity is insignificant (version 01.0) (EB51 Annex 13)
/45/ Demonstrating appropriateness of volume equations for estimation of above ground tree biomass in A/R CDM project activity (EB 67 Annex 24)
/46/ Calculation of the number of sample plots for measurements within A/R CDM project activities (version 02.1.0) (EB58 Annex 15)
/47/ IPCC Good Practice Guidance for Land Use, Land Use Change and Forestry
/48/ IPCC GPG LULUCF: Annex A Glossary
/49/ PDD of A/R CDM project "Afforestation/Reforestation on Degraded Lands in Southwest Sichuan, China"(CDM reference No. 9563)

Persons interviewed:
Persons interviewed during the validation, or persons contributed with other information that are not included in the documents listed above.

/51/ Zhang Xiaoquan, TNC
/52/ Hou Yuan Qing, TNC
/53/ Liang Mili, TNC
/54/ Chen Sihui, Sichuan Forestry Department
/55/ Zhang Liming, Sichuan Forestry Department
/56 Qiu Jian, Sichuan Forestry Department
/57/ Cai Fan Long, Sichuan Forest Research and Design Laboratory
/58/ Ja Ying Hai, Administration of Sichuan Mamize Nature Reserve
/59/ A Hou La Ye, Administration of Sichuan Mamize Nature Reserve
/60/ Chen Xiao, Shan Shui conservation center
/61/ Tang Cai Fu, Shan Shui conservation center
/62/ Dai Limei, Shan Shui conservation center
/63/ Wang Hui, Shan Shui conservation center
/64/ Mao Changwei, Sichuan Liangshan Prefecture Forestry Bureau
/65/ Whi Ming Qing, Daduhe Forestry Bureau
/66/ Gon Qiao Yuan, Daduhe Forestry Bureau
/67/ Jie Niabi, Minzhu village (representative)
/68/ Liuku Muga, Minzhu village (patroller)
/69/ Sha Namji, Minzhu village (patroller)
/70/ Aqu Muqu, Minzhu village (patroller)

APPENDIX A

Panda Standard - AR project

VALIDATION PROTOCOL

Project: Restoration of Giant Panda Habitat in Southwest Sichuan, China

Panda Standard Version 1.0

JACO CDM

Validation Protocol

TABLE 1   MANDATORY REQUIREMENTS FOR PS A/R PROJECT ACTIVITIES

Requirement	Reference	Comments	Conclusion
1. The emissions reduced or removed by the project activities must not be double-counted.	Panda Standard Section I. (4)	NA	NA
2. The project design document shall be in conformance with the PS format	Panda Standard Section 1. (4)	PS form:	OK
3. PS project activity must be located within the boundaries of People's Republic of China (PRC)	Panda Standard Section III	Yes	OK
4. Start date: generally no earlier than January 1, 2005. In case of AFOLU project, to be evaluated case by case and may be accepted with an earlier date provided PP can demonstrate that GHG mitigation was an objective of the activity from its inception.	Panda Standard Section III	Project start date is 01/05/2013 and later than January 1, 2005.	Ref. **CL 3**
5. Crediting period: crediting period for each type of activity is to be as per PS sectoral specification	Panda Standard Section III	60 years from 01/05/2013	OK
6. Additionality: - One or several barriers to implementation (Investment, technological or prevailing practice) - Regulatory/ regal requirements - Common practice Other additionality tool applied?	Panda Standard Section III	Ref. Section 3. It was confirmed that the proposed project activity is additional as per the PS-AFOLU standard and the Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01) (EB35 Annex 19)	OK
7. Additional benefits: Impacts on the environment and local communities must be assessed, mitigated and monitored in accordance with the PRC's domestic laws. In addition, the additional benefits for the environment and local communities shall be assessed, monitored, reported and verified using 3rd party auditors charged with validation and period verification. (Guidelines: PS sectoral spec)	Panda Standard Section III	Ref. Section 7. It was confirmed that there are additional benefits of social, biodiversity and environmental benefits. Also, it was confirmed that the stakeholder consultation procedures are appropriate.	OK
8. Validation and verification report: PS standard template is to be used.	Panda Standard Section IV	The PS standard template is not yet published.	The validation report was made based on the AR CDM template. The report is submitted by JACO CDM to PS technical committee via PS secretariat.

TABLE 2   REQUIREMENTS CHECKLIST

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
SECTION 1: PROJECT OVERVIEW					
1.1. Project title					
A.1.1. Does the title of the project clearly enable to identify the unique PS activity?	/1/	DR	The title of the project is "Restoration of Giant Panda Habitat in Southwest Sichuan, China". It is clearly identify the unique PS activity.	OK	OK
A.1.2. Are there any indication concerning the version number of the PF and the date of issue?	/1/	DR	Version no. 1.0 Date: 03/08/2013	OK	OK
A.1.3. Is this consistent with the time line of the project's history?	/1/ /8/ /10/	DR	(ref. Section 3) October, 2011: Meeting of Walt Disney, SFD and TNC (Consideration of PS project activity) 2011: project identification by TNC China Program and Sichuan Forestry Department April 2012: project development April 2013: Baseline survey contract between TNC China Program and Shanshui Conservation Center	OK	OK
1.2. Project type and project activity					
1.2.1. Does the PF clearly describe the purpose and transparent overview of the project?	/1/	DR	Yes	OK	OK
1.2.2. Does the PF clearly describe how the project is undertaken?	/1/	DR	The proposed PS project activity is to restore degraded habitats of the Giant Panda and other endangered wildlife, control soil erosion and improve livelihood of local communities, the proposed PS project activity plans to establish 500 hectare (ha) of forests by direct planting, started from 1 May 2013. The main planting tree species are spruce (*Picea brachytyla* (Franch.) Pritz. var. complanata (Mast.) Cheng) (124.3 ha) and abies (*Abies fabri* (Mast.) Craib) (375.7 ha). Both species used are native to local, without any invasive alien species or genetically modified organisms. The project activity is expected to contribute to the sustainable development of the project area. **Clarification Request 1**	CL 1	OK

Validation Protocol

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			Please explain about the financial aspect of this project.		
1.2.3. Does the PF clearly describe the PPs view on the contribution of the project to sustainable development of the Host Party or the district?	/1/	DR	Yes, the PF clearly describes the PPs view on the contribution of the project to sustainable development of the district.	OK	OK
1.2.4. Is the project approved by local or national authority?	/1/ /8/	DR	**Clarification Request 2** **Project approval by the local government or relevant authority is to be provided.**	**CL 2**	OK
1.2.5. Is all information consistent with details provided by further chapters of the PF?	/1/	DR	Yes	OK	OK
1.3. Time boundary					
1.3.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	/1/ /16/	DR	**Clarification Request 3** **(1) Evidence of the start date is to be provided.** **(2) FSR or planning document of the project and its approval is to be provided.**	**CL3**	OK
1.3.2. Is the expected operational lifetime clearly defined and reasonable?	/1/	DR	Yes. Operational lifetime is defined as 60 years.	OK	OK
1.3.1. Is the beginning of crediting period so defined as the start of the A/R project activity? Is the assumed crediting time clearly defined and reasonable (Renewable crediting period of max. two x 20 years or fixed crediting period of max. 30 years?)	/1/	DR	Yes. The beginning of the crediting period is the start of the A/R project activity.	OK	OK
1.4. Project boundary					
1.4.1. Has the location of the project including host Party, region and town/community been described?	/1/ /3/	DR	**Clarification Request 4** **(1) The boundary coordinates information is to be provided.** **(2) GIS shp file is to be provided.**	**CL 4**	OK
1.4.2. Has an appropriately detailed geographic delineation of the project boundary including a unique identifier been included?	/1/ /3/	DR	ditto	**(CL 4)**	OK
1.5. Project description					
[Environment]					

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Validation Protocol

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
1.5.1. Has a description of items on the present environmental conditions of the proposed project area including description below? (i) Climate, (ii) Hydrology, (iii) Soils, (iv) Ecosystems the presence of any rare or endangered species and their habitats been included?	/1/ /10/ /17/	DR	**Clarification request 5** **Baseline survey report including information about the presence of any rare or endangered species is to be provided.**	**CL 5**	OK
1.5.2. Are the presence of any rare or endangered species and their habitats been described?	/1/ /9/ /10/ /17/	DR	ditto	**(CL 5)**	
[Technologies and/or measures]					
1.5.3. Have the species and varieties to be grown been adequately described?	/1/	DR	Species are indicated adequately. Fir: *Abies fabri* Spruce: *Picea brachytyla* **Clarification Request 6** **Please inform the reasons of species selection.**	CL 6	OK
1.5.4. Does the project design describe, Environmentally safe and sustainable technologies and know-how which will be employed by PPs?	/1/	DR	Yes	OK	OK
1.5.5. Does the project participant propose new methodologies or amendments to the monitoring methodologies for project activities? In this case, project participants submit to the PS Technical Committee for consideration and get approval?	/1/	DR	NA The project applies the CDM approved methodology published in the PS website.	NA	NA
1.5.6. Does the project design describe , other technical information that may be used to assess the applicability of the selected baseline and monitoring methodology to the proposed A/R PS project activity?	/1/	DR	NA	NA	NA
1.6. Ex-ante Estimation of Net Emission Reduction/Removals					

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
1.6.1. The ex-ante estimation indicated in this section is consistent with other part of the PF?	/1/	DR	It is confirmed that Net GHG removals indicated in the table of section 1.6 and table 4-1 are consistent.	OK	OK
1.7. Project participants:					
1.7.1. Are the PPs in the project listed in the table as required?	/1/	DR	Yes. The project participant is Administration of Sichuan Mamize Nature Reserve.	OK	OK
1.8. Emission reduction ownership					
1.8.1. Have details of the legal title to the land, land tenure and sequestration rights been described adequately?	/1/ /5/ /6/ /51/- /63/	DR I	Yes. **Clarification Request 7** **(1) Please provide the evidences of the land ownership.** **(2) It is to be confirmed with evidence that the control over all the project area is already established.** **(3) Please explain about the authorization about the credit ownership.**	**CL 7**	OK
Section 2: METHODOLOGY APPLIED					
2.1 Methodology					

2.1.1. Are the latest version of methodological tools, procedures, guidelines and guidance applied?	/1/ /30/- /33/	DR	Yes, Following CDM A/R methodologies, CCER AR Methodology and PS methodologies are applied.
			
			   CCDM Methodology: AR-ACM0003
			   CCER AR Methodology, AR-CM-001
			   Panda Standard, Sectoral Specification for Agriculture, Forestry and Other Land Use (PS-AFORU),
			   Panda Standard, Methodology Category −F-V: Forestation of degraded land using species including bamboo Ver. 1.0
			
			Clarification request 8
			It is to be confirmed whether the project apply AR-ACM0003/ Version 01.0.0 or AR-ACM0003/ Version 2.0.0.
			(The validity of AR-ACM0003/ version 01.0.0 is 31/05/2014.)
				CL 8	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
2.1.2. Is the selected baseline methodology in line with the baseline methodologies provided in the PS?	/1/ /30/- /33/	DR	ditto	(CL 8)	OK
2.2. Methodology eligibility **Project participants shall provide evidence that the land within the project boundary is eligible as a PS A/R project activity following the steps outlined below. PS-AFOLU**					
[Eligible conditions]					
2.2.1. Is the application of the methodology and the discussion and determination of the chosen baseline transparent?	/1/ /33/ /40/	DR	It was confirmed that the project activity complies with the applicability conditions stipulated in the methodology AR-ACM0003/ version 2.0.0. The validator confirmed that the project activity complies with the applicability conditions stipulated in the CDM consolidated methodology AR-ACM0003 version 02.0 and also the applicability conditions of "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (EB60 Annex 12).	OK	OK
[Land eligibility demonstration]					
2.2.2. Is it demonstrated that the land at the moment the projects starts is not a forest	/1/ /10/ /31/ /34/	DR	PS-AFOLU requires that the lands to be forested are not forest over 10 years prior to the start date of the project and requires to demonstrate land eligibility with documented evidences. Land eligibility is appropriately demonstrated by satellite images of 1989 & 2010 in the baseline survey report and it complies with "Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities" (CDM EB 35 Annex 18) **Clarification Request 9** **(1) Please provide evidences of the history of the project land.** **(2) Please provide relevant LANDSAT images**	**CL 9**	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			(3) PRA report relevant part for land eligibility		
2.2.3. Has the latest version of the PS to define the eligibility of lands for PS-AFOLU project activities been properly applied?	/1/ /30/- /34/	DR	<u>Clarification Request 9</u> **(4) It is to be confirmed whether the eligibility conditions of lands indicated in PS-AFOLU, Methodology Category F-V version 1.0 is applicable or not.**	**CL 9**	OK
2.3 Determine the sources of GHG emission and carbon pools					
2.3.1. Are the sources of GHG emission and carbon pools selected in accordance with the requirements of the selected methodology?	/1/ /33/	DR	Yes, the sources of GHG emission and carbon pools are selected in accordance with the requirements of AR-ACM0003.	OK	OK
2.4. Identify the project boundary and strata					
2.4.1. Is the project boundary clearly identified?	/1/ /3/	DR	The validation team was provided with GIS shp files for the project area. The validator confirmed from the monitoring of typical boundary using GPS by sampling during on-site visit that the monitored data by sampling conform to the shp file dada.	OK	OK
2.4.2. Is the strata of the project activity conforming to the methodology?	/1/ /33/	DR	The validator confirmed by the on-site visit that the baseline strata of PF are described in accordance with the methodology AR-ACM0003 section 5.3. The validator confirmed by the baseline survey report /10/ and Project plant and management design document (by Sichuan Forestry Inventory and Planning Institute)/11/ that the baseline category of PF complies with baseline survey report. The validator confirmed from the observation of typical project plots (10 among 26 plots) that the baseline stratification in the PF table 2-3 (below) complies with the present situation of the crown cover of bush. BSL-1: $\leq$ 5%		

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			BSL-2: 5% - 30% BSL-3: 31% - 60% BSL-4: ≥ 61% The stratification for ex ante estimation is described in accordance with the methodology AR-ACM0003 section 5.3. **Clarification Request 10** **Please provide project planting species/management plan indicated in the PF section 2.5.**	**CL 10**	OK
Section 3: BASELINE SCENARIO AND ADDITIONALITY					
3.1. (Option a) Demonstration of additionality by triple test method (if the "Combined Tool to identify the baseline scenario and demonstrate additionality in A/R PS project activities" is applied, proceed to paragraph B.6.(b) and this section can be left blank.)					
3.1.(a).1. Is it demonstrated that the project activity complies with triple test method procedures stipulated in PS-AFOLU?	/1/ /30/- /32/	DR	NA	NA	NA
3.1.(Option b: A/R PS approach) Identification of the baseline scenario and demonstration of additionality using the "Combined Tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities" (If required by the selected approved methodology)					
3.1.(b).1. Does the baseline scenario satisfy the applicability conditions?	/1/ /33/	DR	Ref. section 2.1 & 2.2 of this checklist.	OK	OK
3.1.(b).2. Has the baseline been determined based on the	/1/ /33/	DR	The barrier analysis is described in accordance with		

JACO CDM

Validation Protocol

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.

specified 5 steps of the tool?
 Step 0: Preliminary screening
 	
 Step 1: Identification of alternative land use scenario
 	
 Step 2: Barrier analysis
 	
 Step 3: Investment analysis
 	
 Step 4: Common practice analysis
			the 5 steps indicated in the Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (version 01) (EB35 Annex 19)
			
			 step 0: screening based on the starting date of the A/R project activity
			   2011: project identification by TNC China Program and Sichuan Forestry Department.
			   Oct. 2011: Meeting of Walt Disney, SFD and TNC (Consideration of PS project activity)
			   Early 2012: project development
			   April 15, 2013: Baseline survey contract between TNC China Program and Shanshui Conservation Center
			
			   The starting date of the project activity is confirmed as 01/05/2013 by the planting photograph/training record /16/ and the date is after 01/01/2005. Hence the starting date complies with the PS-AFOLU requirements.
			
			 step 1: Identification of alternative land use scenario to the proposed PS project activity
			
			   a) historical and existing land-use/ land-cover changes – identifying key factors
			
			     forest destroyed in 1960s
			
			     early 1980s all project lands were non-forest
			
			   b) interviews with local farmers and staff from nature reserve:
			
			     crown cover decreasing in recent decades due to commercial logging and overgrazing and collection of fuel woods
			
			   soil erosion, stony desertification increase
			
			   c) National, local and sectoral land-use policies or regulation: Commercial timber base program does not reach to the project area		

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			d) Grain Green Program: not reforestation on state-owned land including lands managed by nature reserves: step 2: barrier analysis step 4: Common practice analysis	**CL 11**	OK
			Clarification Request 11 (1) **The contract date of baseline survey is to be clarified with its evidence.** (2) **The evidence of above activity by TNC and Sichuan Forestry Department is to be provided**.	**CL 12**	OK
			Clarification request 12 (1) **It is to be confirmed that there is no reforestation on state-owned land in the past and near the project area.** (2) **Please inform about the examples of the timber plantation or cash tree garden near the project area, if available.**		
			Clarification request 13 (1) **Inflation data in China in recent years is to be provided.** (2) **Please provide examples of the forestation on lands similar to project lands indicated in the PF Section 3, Step 4 (p35).**	**CL 13**	OK
3.1.(b).3. Does the baseline scenario sufficiently take into account relevant national and/ or sectoral policies and circumstances such as historical land uses, practices, and economic trends?	/1/ /10/ /18/ /33/	DR	Ref. CL 9 – CL 13.	(CL9-CL13)	OK
3.1.(b).4. Is the baseline determination compatible with the available data?	/1/ /10/ /18/	DR	Ditto	(CL9-CL13)	OK
3.1.(b).5. Are all literature and sources clearly referenced?	/1/	DR	Ditto	(CL9-CL13)	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
3.4.(Option c: Performance standard approach)					
3.4.1. Is the performance standard approach procedures are correctly applied to the project activity?	/1/	DR	NA	–	–
SECTION 4: NET EMISSION REDUCTION/ NET ANTHROPOGENIC GHG REMOVALS BY SINKS					
4.1. Baseline scenario and net GHG removals by sinks **The validation of estimated baseline net GHG removals focuses on transparency and completeness of calculations.**					
4.1.1. Is the description of the application of the approach to identify the most plausible baseline scenario appropriate? (separately for each stratum) **- selection of approved methodology to identify the baseline scenario** **- Is the application of baseline determination steps, if applicable, appropriate and transparent?** **- justification of key assumptions and rationales** **- relevant documentation or references**	/1/ /10/ /33/	DR	PS TC approves CDM A/R methodologies, hence the selected AR-ACM0003 version 02.0 is appropriate. The validator confirmed from the baseline survey report and on-site visit that the selected methodology AR-ACM0003 version 02.0 is appropriate to identify the baseline scenario. The validator confirmed that the application of baseline determination steps complies with the applied methodology. The validator confirmed by the baseline survey report that the baseline determination steps are appropriate and transparent. Key assumptions and rationales are in accordance with the applied methodology and justified by the baseline survey report./10/	OK	OK
4.1.2. Has the baseline been determined using conservative assumptions where possible?	/1/ /10/	DR	Ditto	OK	OK
4.1.3. Has the baseline been established on a project-specific basis?	/1/ /10/	DR	Yes	OK	OK
4.1.4. Have the most relevant and likely operational characteristics and baseline indicators been chosen as reference for baseline removals?	/1/ /10/	DR	Ref. CL 9 – CL 13.	(CL9-CL13)	OK
4.1.5. Are the baseline boundaries clearly defined and do they sufficiently cover sources and sinks for	/1/ /3/	DR	PF clearly define the baseline boundaries. It was confirmed by the on-site visit (by sampling) and	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
baseline removals?	/10/		baseline survey report /10/ that the baseline boundaries description in the PF represent the actual conditions of the project area and consistent with the baseline survey report.		

4.1.6. Are the GHG calculations documented in a complete and transparent manner?	/1/ /2/	DR	The GHG calculation formula is to be in accordance with the applied methodology AR-ACM0003. The detail calculation is available in the spreadsheet.
			
			Clarification Request 14
			
			(1) Please inform the reference of the formula (4.3)
			(2) Please provide the National default values for following parameters for the project tree species.
			   BEF_{2j},
			   D_j
			   R_j
			   CF_{TREE}
			   DF_{DW}
				CL 14	OK

4.1.7. Have conservative assumptions been used when calculating baseline?	/1/ /2/ /10/ /33/	DR	The baseline removals change is discussed based on the applied methodology AR-ACM0003 version 02.0 as below. $\Delta C_{BSL,t} = \Delta C_{TREE\_BSL,t} + \Delta C_{SHRUB\_BSL,t} + \Delta C_{DW\_BSL,t} + \Delta C_{LI\_BSL,t}$ It is described in the PF that all of pre-project trees and shrubs are in the state of mature or over-mature, the carbon stock changes of these baseline trees were assumed to be zero. The validator observed during on-site visit that small number of remaining trees and shrubs are in the state of mature or over-mature. Hence, the PF description is appropriate. ∴ All of the following changes are 0. $\Delta C_{TREE\_BSL,t}$, $\Delta C_{SHRUB\_BSL,t}$, $\Delta C_{DW\_BSL,t}$, $\Delta C_{LI\_BSL,t}$	OK	OK
4.1.8. Have the project baseline(s) and the project removals been determined using the same appropriate methodology and conservative	/1/ /2/ /10/	DR	Methodology AR-ACM0003 is applied.	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
assumptions?					
4.2. Net project GHG removals by sinks **The validation of predicted project GHG removals focuses on transparency and completeness of calculations.**					
4.2.1. Are all aspects related to direct and indirect GHG removals captured in the project design?	/1/ /2/ /10/ /33/	DR	Yes, all the carbon stocks (trees, shrubs, dead wood and litters) including pre-project biomass are taken into account. The project area is degraded grass lands and there is no leakage. The planting work is carried out without using cars and there is no GHG emission. Hence, all the aspects related to direct and indirect GHG removals are captured in the project design.	OK	OK
4.2.2. Are the GHG calculations documented in a complete and transparent manner?	/1/ /2/	DR	Yes, the GHG calculations are documented in a complete and transparent manner by the excel sheet.	OK	OK
4.2.3. Have conservative assumptions been used to calculate project GHG removals?	/1/ /2/	DR	Yes, the pre-project tree and shrubs are conservatively assumed that all pre-project trees and shrubs will disappear at the plating year under the project scenario./1/,/2/	OK	OK
4.2.4. Are uncertainties in the GHG removals estimates properly addressed in the documentation?	/1/	DR	It is to be reviewed in the verification stage.	OK	OK
4.2.5. Have all relevant greenhouse gases and source categories listed in PS been evaluated?	/1/ /33/	DR	Yes, ref project PF section 2.4.	OK	OK
4.3. Estimated Leakage **It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed.**					
4.3.1. Are potential leakage effects beyond the chosen project boundaries properly identified in accordance with PS A/R methodologies?	/1/ /30/- /32/ /33/	DR	**Clarification Request 15** **It is to be confirmed that there is no displacement caused by the project activity.**	**CL 15**	OK
4.3.2. Have these leakage effects been properly accounted for in calculations?	/1//2/ /33/	DR	Ditto	(CL 15)	OK
4.3.3. Are the calculations documented in a complete and transparent manner?	/1//2/ /33/	DR	Ditto	(CL 15)	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
4.3.4. Have conservative assumptions been used when calculating leakage?	/1//2/ /33/	DR	Ditto	(CL 15)	OK
4.3.5. Are uncertainties in the leakage estimates properly addressed?	/1/ /33/	DR	Ditto	(CL 15)	OK
4.4. Uncertainty					
4.4. Are uncertainties in choosing key parameters properly addressed in the documentation?	/1/	DR	NA Uncertainty is to be reviewed in the verification stage	NA	–
4.5. PS carbon credit calculation					
[Data and parameters fixed ex ante]					
4.5.1. Are the data and parameters fixed ex ante are indicated in accordance with the requirements of the selected methodology including applicable tool(s)?	/1/ /33/	DR	Yes, the data and parameters fixed ex ante are indicated in accordance with the PS methodology F-V. Ref. **CL 14**	**(CL 14)**	OK
[Ex ante calculation of net anthropogenic GHG removals by sinks]					
4.5.2. Is the calculation formula complying with the methodology?	/1/ /2/ /33/	DR	Yes, the calculation formula complies with the PS methodology F-V and AR-ACM0003.	OK	OK
4.5.3. Will the project result in increased net GHG removals by sinks than the baseline scenario?	/1/ /2/	DR	Yes, the project results in increased net GHG removals by sinks. The net GHG removals (tCO_2e) are as below. Baseline: (Baseline stock: 465) Baseline change during 60 years: -465 Project net GHG removals during 60 years: 113,192 + 465 = 113,657 Dead wood stock in 60years=9,093 Litter stock in 60 years=10,263 Soil stock in 60 years=29,333 Total stock in 60 years= 161,881 tCO_2e	OK	OK
4.6. Net emission reduction/ removals					
4.6.1 Is the form required for the indication of project	/1//2/	DR	Yes, the form required for the project GHG removals	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
emission reductions correctly applied?	/33/		is correctly applied.		
4.6.2. Are the figures provided consistent with other data presented in the PF?	/1//2/	DR	Yes, the figures provided are consistent with other data in the PF. Ref. PF Section 1.6, 4.2 and 5.2.	OK	OK
SECTION 5: PERMANENCE AND RISK MITIGATION					
5.1. Risk assessment: Does the risk assessment comply with the relevant PS-AFOLU rules?	/1/ /30/-/32/	DR	It is confirmed that the risk assessment complies with the PS-AFORU rules (PS AFOLU Methodology Category F-V "Forestation of degraded land using species including bamboo" section 2.5.	OK	OK
5.2. Risk mitigation: Does the risk mitigation comply with the relevant PS-AFOLU rules?	/1/ /30/-/32/	DR	It is confirmed that the risk factor is correctly calculated as 11.2% based on the PS-AFOLU rules and mitigation is estimated correctly.	OK	OK
SECTION 6. MONITORING					
6.1 Monitoring frequency and monitoring parameters					
6.1.1. Is the monitoring frequency complying with the methodology?	/1/ /32/	DR	The monitoring frequency is specified as 10 years in the project and the value complies with the CCER AR Methodology AR-CM-001-V01 "Every 3-10 years". **Clarification Request 16** **Please justify that the monitoring frequency of 10 years is appropriate. (Ref. AR-ACM0003 and IPCC GPG)**	**CL 16**	OK
6.1.2. Are the data and parameters are appropriate in accordance with the applied methodology including the applicable tool(s)?	/1//2/ /3/ /33/	DR	**Clarification Request 17** **GIS and calculation of project area are to be demonstrated during the on-site visit.**	**CL 17**	OK
6.1.3. Are the description of the monitoring plan contains all necessary parameters? Are data and parameters are described in accordance with the PF form?	/1/ /33/	DR	The monitoring plan conforms to the description of PS-AFOLU methodology section 5.3.	OK	OK
6.1.4. Are the means of monitoring described in the monitoring plan complies with the requirements of the methodology including applicable tool(s)?	/1/ /33/	DR	The means of monitoring described in the monitoring plan complies with the requirements of the monitoring methodology.	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
6.2. Monitoring of the project implementation					
6.2.1. Does the selected monitoring methodology require the monitoring of forest establishment?	/1/ /33/	DR	The PS methodology F-V requires the monitoring of project implementation as below: (1) monitoring the boundary PS forestation project activity (2) monitoring of the forest management **Clarification Request 18** **Please provide the monitoring card form, if already available.**	**CL 18**	OK
6.2.2. Is the information described on how geographic coordinates of the project boundary are established, recorded and archived?	/1/ /3/	DR	It was confirmed from the sampling GPS measurement during the on-site visit that the geographic coordinates of the project boundary are monitored and recorded in accordance with the PS methodology as below: (1) measuring geographical positions using GPS or other verifiable approaches, (2) input the measured geographical positions in to GIS system and calculate the eligible area of each stratum. The area calculation is done by GIS and demonstrated during on-site visit.	OK	OK
6.2.3. Does the PP apply default data in estimation of the net anthropogenic GHG removals by sinks which results in conservative value?	/1/ /15/ /33/	DR	Ref. **CL 14**	**(CL14)**	OK
[Operational and management structure **It is checked that project implementation is properly prepared for and that critical arrangements are addressed.]**					
6.2.4. Is the authority and responsibility of project management clearly described?	/1/ /51/- /70/	DR I	**Clarification request 19** **(1) Please explain about management structure including each party's roles and responsibilities.**	**CL 19**	OK
6.2.5. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	/1/ /51/- /70/	DR I	Ditto	**(CL 19)**	OK
6.2.6. Are procedures identified for training of	/1/	DR	**(2) Procedures of training and records are to be**	**CL 19**	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
monitoring personnel?	/51/-/70/	I	explained.		
6.2.7. Are procedures identified for monitoring, measurements and reporting?	/1/ /51/-/63/	DR I	**(3) Procedures for measurement and reporting are to be explained.**	**CL 19**	OK
6.2.8. Are procedures identified for data maintenance and storage?	/1/ /51/-/63/	DR I	**(4) procedures for data maintenance and storage**	**CL 19**	OK
6.2.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	/1/ /51/-/63/	DR I	**(5) procedures for dealing with possible monitoring data adjustments and uncertainties**	**CL 19**	OK
6.2.10. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	/1/ /51/-/63/	DR I	**(6) procedures identified for project performance reviews before data is submitted for verification, internally or externally**	**CL 19**	Ok
[QUALITY CONTROL & QUALITY ASSURANCE]					
6.2.11. Are procedures identified to ensure reliable field measurements? The procedure includes development of standard operating procedures (SOPs) for each step of the field measurements, collecting reliable data, training and provisions for documentation for future verification.	/1/ /51/-/63/	DR I	The procedures to ensure reliable field measurements are described in PF section 6.2.	OK	OK
6.2.12. Are procedures identified to verify field data collection?	/1/ /51/-/63/	DR I	Ref. PF section 6.2.	OK	OK
6.2.13. Are procedures identified to verify data entry and analysis?	/1/ /51/-/63/	DR I	ditto	OK	OK
6.2.14. Are procedures identified for data maintenance and storage taking into account the long-term nature of A/R project activities under the PS?	/1/ /51/-/63/	DR I	ditto	OK	OK
6.3. Sampling plan and stratification					
6.3.1. Are the ex-ante strata indicated appropriately?	/1/ /51/-/63/	DR I	**Clarification Request 20** **The default value 30% as the standard deviation of biomass in each stratum is to be justified.**	**CL 20**	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
6.3.2. Is the application of the ex post stratification procedures explained?	/1/ /51/-/63/	DR I	Yes, the ex post stratification is explained as 6 strata that it is based on species (Fir and Spruce) and planting year (2013, 2014, 2015).	OK	OK
6.3.3. Is the sampling design described properly?	/1/ /51/-/63/	DR I	Yes, the sampling design is properly described in accordance with the CDM methodological tool "Calculation of the number of sample plots for measurements within A/R CDM project activities (version 02.1.0)" /46/ It was confirmed that the calculation of the sample volume conforms to the A/R Methodological Tool using appropriate parameters. (**CL 20**)	OK	OK
6.4. Monitoring of the baseline net GHG removals by sinks (If required by the selected approved methodology)					
6.4.1 Is the monitoring of baseline required by the selected baseline methodology?	/1/ /33/	DR	NA	NA	NA
6.4.2. If required, do data and parameters comply with the requirements of the methodology?	/1/ /33/	DR	NA	NA	NA
6.5. Monitoring of the actual net GHG removals It is established whether the monitoring plan provides for reliable and complete actual net GHG removals.					
6.5.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the actual net greenhouse gas removals by sinks during the crediting period?	/1/ /51/-/63/	DR I	Yes, the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the actual net greenhouse gas removals by sinks in accordance with the PS methodology.	OK	OK
6.5.2. Does the monitoring plan provide for changes in circumstances within the project boundary that affect legal title to the land or right of access to the carbon pools?	/1/ /51/-/63/	DR I	Yes, it is described in PF section 6.2.1.	OK	OK
6.5.3. Does the monitoring plan specify the technique	/1/	DR	Sampling method including the sample plot size and	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
and methods for sampling and measuring individual carbon pools and GHG removals by sinks included in the actual GHG removals by sinks that reflects commonly accepted principles and criteria concerning forest inventory?	/51/-/63/	I	number of sample plots are included in the monitoring plan and it reflects commonly accepted principles.		
6.5.4. Are the choice of project GHG indicators reasonable?	/1/ /51/-/63/	DR I	Yes, the project GHG indicators are in accordance with the PS methodology F-V and reasonable. **Clarification Request 21** **Please inform the tree volume calculation formula along with the reference.**	**CL 21**	OK
6.5.5. Will it be possible to monitor / measure the specified project GHG indicators?	/1/ /51/-/63/	DR I	Yes. The specified project GHG indicators are: Apj: area of plot p in stratum, Ai: area of stratum i DBH: Breast height diameter (1.3m) min dia is 2cm H: height of trees By above measurements, the volume of trees is calculated using the equations formula 4.3. (Ref. **CL 14**)	OK **(CL 14)**	OK
6.5.6. Will the indicators enable comparison of project data and performance over time?	/1/ /51/-/63/	DR I	Yes.	OK	OK
6.5.7. Does the project participant specify 3- 10 year monitoring frequency?	/1/	DR	Yes, the project specifies 10 years monitoring frequency as per the PS methodology. (**CL 16**)	(**CL 16**)	OK
6.5.8. Do the project management plan and the monitoring plan ensure that a systematic coincidence of verification and peaks in carbon stocks is avoided?	/1/	DR	NA (no peaks are anticipated.)	OK	OK
6.6. Monitoring of Leakage **It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.**					
6.6.1. Does the monitoring plan clearly identify the leakage indicators?	/1/ /15/ /32/	DR	NA as per methodology for PS project.	NA	NA

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
6.6.2. Have relevant indicators for GHG leakage been included?	/1/ /15/ /32/	DR	NA	NA	NA
6.6.3. Will it be possible to monitor the specified GHG leakage indicators?	/1/ /15/ /32/	DR	NA	NA	NA
6.6.4. Does the monitoring plan specify the procedures for the periodic review of implementation of the activities and measures to minimize leakage?	/1/ /15/ /32/	DR	NA	NA	NA
SECTION 7: ADDITIONAL BENEFITS					
7.1. SOCIO-ECONOMIC IMPACTS **Documentation on the analysis of the socio-economic impacts, including impacts outside the project boundary will be assessed, and if deemed significant, a socio-economic impact assessment should be provided to the validator.**					
7.1.1. Analysis of Socioeconomic impacts					
7.1.1.1. Is the analysis documented about the socio-economic impacts, including impacts outside the project boundary? **This analysis should include, where applicable, information on, inter alia, local communities, indigenous people, land tenure, local employment, food production, cultural and religious sites, and access to fuel wood and other forest products.**	/1/ /9/	DR	**Clarification Request 22** **(1) Socio-economic impact analysis report is to be provided,**	**CL 22**	OK
7.1.2. Socio-economic impact assessment					
7.1.2.1. If any negative impact is considered significant by the project participants or the host Party, a statement is required including that the project participants have undertaken socio-economic impact assessment adequate to scale, in	/1/ /9/ /18/ /51/- /70/	DR I	ditto	(CL 22)	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
accordance with the procedures required by the host party, including conclusions and all references to support documentation.					
7.1.3. Planned monitoring and remedial measures to address significant impacts					
7.1.3.1. Have identified socio-economic impacts been addressed in the project design?	/1/ /9/ /18/ /51/- /70/	DR I	ditto	**(CL 22)**	OK
7.1.3.2. Does the project participant indicate planned monitoring and remedial measures to address significant impacts on socio-economic impacts?	/1/ /9/ /18/ /51/- /70/	DR I	**Clarification Request 22** **(2) It is to be confirmed whether the socio-economic impacts monitoring will be conducted regularly.**	**CL 22**	OK
7.2. ENVIRONMENTAL IMPACTS **Documentation on the analysis of the environmental impacts, including impacts on biodiversity and natural ecosystems, and impacts outside the project boundary will be assessed, and if deemed significant, an EIA should be provided to the validator.**					
7.2.1. Analysis of environmental impacts					
7.2.1.1. Is the analysis documented about the environmental impacts, including impacts on biodiversity and natural ecosystems, and impacts outside the project boundary? **This analysis should include, where applicable, information on, inter alia, hydrology, soils, risk of fires, pests and diseases.**	/1/ /17/	DR	**Clarification Request 23** **Environmental impacts analysis is to be provided, if available.**	**CL 23**	OK
7.2.2. Environmental impact assessment					
7.2.2.1. If adverse effect is considered significant by the project participants or the Host Party, is the statement included that the project participants	/1/ /17/ /51/-	DR I	Ditto	**(CL 23)**	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
have undertaken EIA in accordance with the procedures required by the host party, including its conclusions and all references to support documentation?	/70/				
7.2.3. Planned monitoring and remedial measures to address significant impacts					
7.2.3.1. Have identified environmental impacts been addressed in the project design?	/1/ /17/ /51/- /63/	DR I	Ditto	(**CL 23**)	OK
7.2.3.2. Does the project comply with environmental legislation in the host country?	/1/ /17/ /51/- /63/	DR I	Ditto	(**CL 23**)	OK
7.2.3.3. Does the project participant indicate planned monitoring and remedial measures to address significant impacts on environmental	/1/ /17/ /51/- /63/	DR I	Ditto	(**CL 23**)	OK
7.3. STAKEHOLDER COMMENTS **The validator should ensure that a stakeholder comments have been invited and that due account has been taken of any comments received.**					
7.3.1. Brief description of how comments by local stakeholders have been invited and compiled:					
7.3.1.1. Have relevant stakeholders been consulted?	/1/ /18/ /51/- /70/	DR I	**Clarification Request 24** **The procedures for stakeholder consulting are to be explained.**	**CL 24**	OK
7.3.1.2. Have appropriate media been used to invite comments by local stakeholders?	/1/ /18/ /51/- /70/	DR I	Ditto	(**CL 24**)	OK
7.3.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the	/1/ /18/	DR I	Ditto	(**CL 24**)	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
stakeholder consultation process been carried out in accordance with such regulations/laws?	/51/-/70/				

TABLE 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
Clarification Request 1 **Please explain about the financial aspect of this project.**	1.2.2	The Disney will provide all fund needed for the project development, tree planting and forest management through contract between TNC and Disney, and contract between the Mamize Nature Reserve and TNC concerning the planting.	OK It was confirmed from the interviews with TNC and also by the minutes between Disney & TNC and the project plan by TNC that the project is funded by Disney./7/,/8/,/50/,/51/
Clarification Request 2 **Project approval by the local government or relevant authority is to be provided.**	1.2.4	The project is under the project list in the MOU between State Forestation Administration and TNC China. The MOU is provided to DOE as confidential information.	OK It was confirmed from the interview with TNC & SFD and the MOU that the project is under the project list in the MOU. /6/
Clarification Request 3 **(1) Evidence of the start date is to be provided.** **(2) FSR or planning document of the project and its approval is to be provided.**	1.3.1	(1) The starting date is demonstrated through (i) the contract between The Mamize Nature Reserve and TNC concerning the tree planting. (ii)The contracts can be provided to DOE as confidential information; (iii) minutes of the discussion meeting between Disney and TNC China. (2) Planting design document prepared by Sichuan Forest Research and Design Laboratory is provided.	OK (1) Evidences of the project start date were provided. It was confirmed that the project start date of PF (01/05/2013) is appropriate. /12/,/13/ (2) Project planting design document made by Sichuan Forest Research and Design Laboratory was provided./11/
Clarification Request 4 **(1) The boundary coordinates information is to be provided.** **(2) GIS shp file is to be provided.**	1.4.1	Shp file and the boundary coordinates information are provided	OK GIS shp file was provided. /3/ The validators confirmed from the monitoring of typical boundary using GPS by sampling during on-site visit that the monitored data conform to the shp file data.
Clarification request 5 **Baseline survey report including information about the presence of any rare or endangered**	1.5.1	Baseline survey report is provided. As for the presence of rare or endangered species, Environmental	OK Biodiversity baseline survey report and baseline survey report were provided. /9/,/10/

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
species is to be provided.		impacts analysis register form and PRA report are provided.	The report provides the monitored data about baseline tree biomass and shrub crown cover of each project area. It was confirmed that the data conforms to the baseline biomass stock at the project start. /2(a)/ Environmental impacts analysis register form /17/ and PRA report /18/ are also provided. It was confirmed from these reports and from the interviews with PP, local forest department staff and villagers during on-site visit that there had been many rare or endangered species in the past (before 1960's) but there are no such species after deforestation in the project area.
Clarification Request 6 **Please inform the reasons of species selection.**	1.5.3	The project is to restore original spruce and fir forests that were deforested in 1960s	OK It was confirmed from the interviews with PP, consultant and villagers that major tree species in the original condition had been fir and spruce and suitable for Giant Panda Habitat. It was also confirmed from the observation of the nearby nature forest reserve "Mega Da Fending" that fir and spruce is original species in the project area.
Clarification Request 7 **(1) Please provide the evidences of the land ownership.** **(2) It is to be confirmed with evidence that the control over all the project area is already established.** **(3) Please explain about the authorization about the credit ownership.**	1.8.1	(1) land certificate provided (2) the project lands are state owned and managed by the nature reserve, so the project participant have the control over all the project area (3) the nature reserve owns the credit that will be transferred to Disney based on the contract between Disney and	OK (1) The land certificate was provided which shows that the project land is located in the state owned Mamize Nature Reserve. (2) It was confirmed from the interviews with PP that the project lands are managed by the Mamize Nature Reserve (PP) and

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
		TNC	PP has the control over all the project area. (3) It was confirmed from the interviews with PP & TNC that the credit is owned by PP. It was also confirmed from the interviews with PP & TNC and the contract between Disney and TNC that credit will be transferred to Disney.
Clarification request 8 **It is to be confirmed whether the project apply AR-ACM0003/ Version 01.0.0 or AR-ACM0003/ Version 2.0.0.** (The validity of AR-ACM0003/ version 01.0.0 is 31/05/2014.)	2.1.1	The project form is revised accordingly.	OK It was confirmed from the PF version 2.0 that the methodology version was revised to version 02.0.0.
Clarification Request 9 **(1) Please provide evidences of the history of the project land.** **(2) Please provide relevant LANDSAT images** **(3) PRA report relevant part for land eligibility.** **(4) It is to be confirmed whether the eligibility conditions of lands indicated in PS-AFOLU, Methodology Category F-V version 1.0 is applicable or not.**	2.2.2, 2.2.3	(1) In PRA report the information is provided. (2) 1989 Landsat map provided (3) PRA report provided. (4) not applicable as we used the AR-CDM methodology AR-ACM0003/V02.0.0	The validator was provided with PRA report. The validator confirmed from the interviews with PP, consultant and villagers in addition to the PRA report, baseline survey report and satellite image of 1989 & 2010 that the project complies with the eligibility conditions of A/R CDM (EB 35 Annex 18) and the eligibility conditions of PS-AFOLU methodology Category F-V version 1.0.
Clarification Request 10 **Please provide project planting species/management plan indicated in the PF section 2.5.**	2.4.2	Project plant and management design document (by Sichuan Forestry Inventory and Planning Institute) is provided.	The validator confirmed by the baseline survey report /10/ and Project plant and management design document (by Sichuan Forestry Inventory and Planning Institute)/11/ that the baseline category of PF complies with baseline survey report. The validator confirmed from the observation of typical project plots (10 among 26 plots) that the baseline stratification in the PF table 2-3

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
			complies with the present situation of the crown cover of bush.
Clarification Request 11 (1) **The contract date of baseline survey is to be clarified with its evidence.** (2) **The evidence of above activity by TNC and Sichuan Forestry Department is to be provided**. (3) **Meeting minutes between Disney and TNC on 24/10/2011 is to be provided**.	3.1.(b).2	(1) Copy of contract between TNC and Shanshui is provided. (2) Contract between the Nature reserve and Sichuan Forestry Inventory and Planning is provided. (3) Meeting minutes between Disney and TNC is provided.	(1) The copy of contract between TNC and Shanshui was provided. (2) Contract between the Nature reserve and Sichuan Forestry Inventory and Planning is provided. (3) Meeting minutes between Disney and TNC was provided. The validator confirmed from the meeting minutes between Walt Disney and TNC on 24/10/2011 that the proposed PS project activity had been considered before project start date (01/05/2013) and the project start date is after the date of PS-AFOLU requirements (01/01/2005). Hence the start date complies with the PS-AFOLU requirements.
Clarification request 12 (1) **It is to be confirmed that there is no reforestation on state-owned land in the past and near the project area.** (2) **Please inform about the examples of the timber plantation or cash tree garden near the project area, if available.**	3.1.(b).2	(1) The nature reserve has relatively high forest coverage and is not the priority area for forestation by the government, this was confirmed by the Sichuan Forestry Department during on-site audit (2) seen on the way to the project site	OK (1) The validator confirmed by the Sichuan Forestry Department /52/-/55/ that the nature reserve has relatively high forest coverage and is not the priority area for forestation by the government. (2) Confirmed during the on-site visit.
Clarification request 13 (1) **Inflation data in China in recent years is to be provided.** (2) **Please provide examples of the forestation on lands similar to project lands indicated in the PF Section 3, Step 4.**	3.1.(b).2	(1) The government release CPI every month which can be check through website. In the last 2-3 years the cost for labor, seedlings and transportation have doubled based on the information from the nature reserve (2) there was no forestation in the nature reserve as confirmed by the Sichuan	(1) The validator confirmed from the interviews with PP and consultant that the price of seedlings, other material cost, labour cost and transportation cost are increasing rapidly such as below. Inflation rate: 2013 approx. 3%, 2014 Feb. approx. 2.5%

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
		Forestry Department	Seedlings (compared with 2~3 years before): approx. 1.8 times increased Other material cost (compared with 2~3 years before): approx. 2 times Transportation and labor cost (compared with 2~3 years before): approx. 2 times (2) The validator confirmed from the interviews with PP, consultant and SFD that there are some forestations in the project county but they are planting fast growing trees for timber and no forestation of native trees such as Fir and Spruce that grow very slow. In addition, the validator confirmed from the interviews with PP, consultant and SFD and on-site visit that the project areas are located in forest line of high altitude such as 3000 ~ 3400m and the environment conditions are very severe, thus great care is necessary to achieve the planned survival rate. Thus there is no similar forestation in the nature reserve except Novartis A/R CDM project.

Clarification Request 14
(1) Please inform the reference of the formula (4.3) (2) Please provide the National default values for following parameters for the project tree species.
    BEF_{2j},
    D_j
    R_j
    CF_{TREE}
	4.1.6	(1) this formula is from Novartis Project PDD
		(2) we use same default value as the Novartis project PDD.
		All of these reference have been added in the revised PF
			(1) The validator confirmed that the same formula is used in the proposed PS project and Novartis CDM project.
			
			(2) The validator was provided with the CCER methodology documents and confirmed each data is correctly reflected in the PF as below. /15/

	Fir	Spruce
BEF	Fir: 1.316	Spruce:1.734
D	0.366	0.342

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)		
			R	0.174	0.224
			CF	0.5	0.521
Clarification Request 15 **It is to be confirmed that there is no displacement caused by the project activity.**	4.3.1	There is not cropping activity on project land. Based on the PRA, local community do not have grazing on the project lands	OK Cropping: It was confirmed from the interviews of villagers and on-site visit that there is no cropping activity. Grazing: The grazing in the nature reserve is illegal. However, in some part of the project area which is located in the nature reserve, grazing was observed during the on-site visit. It was explained by local forestry bureau that the illegal grazing has been reducing. It was also explained that considering the historical use of the project land for grazing in the past, the local government is continuing the effort to reduce the grazing by a step by step manner. It was confirmed from the on-site visit that all areas surrounding the project lands are degraded or degrading. Hence, animals expected to be displaced to degraded or degrading areas and the increase in GHG emissions due to displacement of pre-project grazing activities attributable to the PS activity is insignificant as per the CDM EB 51 Annex 13 "Guidance on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant".			
Clarification Request 16 **Please justify that the monitoring frequency of**	6.1.1	The fir and spruce grow very slow in the project area. It is not wise to use shorter interval.	OK CCER AR Methodology AR-CM-001-V01			

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
10 years is appropriate. (Ref. AR-ACM0003 and IPCC GPG)			/15/ and the Panda Standard, Methodology Category – F-V "Forestation of degraded land using species including bamboo" requires about the monitoring frequency as "Every 3-10 years since the year of the first verification" /32/. Hence, the monitoring frequency of 10 years is appropriate.
Clarification Request 17 **GIS and calculation of project area are to be demonstrated during the on-site visit.**	6.1.2	demonstrated on GIS platform	OK The GIS was demonstrated. The validator confirmed that the GIS information is consistent with the PF.
Clarification Request 18 **Please provide the monitoring card form, if already available.**	6.2.1	Will provide during verification	OK, it is to be provided at the verification.
Clarification request 19 **(1) Please explain about management structure including each party's roles and responsibilities.** **(2) Procedures of training and records are to be explained.** **(3) Procedures for measurement and reporting are to be explained.** **(4) procedures for data maintenance and storage** **(5) procedures for dealing with possible monitoring data adjustments and uncertainties** **(6) procedures identified for project performance reviews before data is submitted for verification, internally or externally**	6.2.4 – 6.2.10	(1)explained during on-site audit (2) training will be provided (3)will be developed before monitoring (4)data will be archived and stored in the nature reserve (5) will be included in SOP (6) will submit to DOE during verification	(1) Management structure was explained by Mamize Nature Reserve. (2) Training records (3) – (6) OK, these are to be discussed at verification.
Clarification Request 20 **The default value 30% as the standard deviation of biomass in each stratum is to be justified.**	6.3.1	This is based on experience from AR-CDM project such as in AR CDM projects Guangxi, Inner Mongolia.	OK The validator confirmed by the data of "Facilitating Reforestation for Guangxi

JACO CDM

Validation Protocol

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question table 2	Summary of project owner response	Validation team conclusion (incl.: Summary of the significant changes between original PF and PF for registration request)
			Watershed Managed in Pearl River Basin" A/R project (CDM ref. no. 0547) and "Afforestation of Degraded Shengle Ecological Zone in Helinge'er Inner Mongolia, China" A/R project (CDM Ref.no. 9525) that 30% as the standard deviation of biomass is conservative.
Clarification Request 21 **Please inform the tree volume calculation formula along with the reference.**	6.5.4	Same as those in Novartis PDD. The reference has been provided in the revised PF	OK The validator confirmed that the volume calculation formula of the proposed PS project activity is the same as those used in Novartis CDM project (CDM ref. no.9563).
Clarification Request 22 **(1) Socio-economic impact analysis report is to be provided,** **(2) It is to be confirmed whether the socio-economic impacts monitoring will be conducted regularly.**	7.1.1.1 7.1.3.2	(1) included in the PRA report (2) included in CCB PDD	OK PRA report /18/ and CCB PDD /4/ were provided.
Clarification Request 23 **Environmental impacts analysis report is to be provided, if available.**	7.2.1.1	Will be available before registration, which will be from environmental protection bureau at county level.	Environmental impacts analysis register forms for the report were provided./17/
Clarification Request 24 The procedures for stakeholder consulting are to be explained.	7.3.1.1	PRA SOP provided	PRA report was provided. It was confirmed that the stakeholder consultation process is appropriate.