Verified Carbon Standard

FUJIAN QINGLIU IFM (CONVERSION OF LOGGED TO PROTECTED FOREST) PROJECT

杭州超腾能源技术股份有限公司
Hangzhou Chaoteng energy technology Co.,Ltd

Document Prepared by Hangzhou Chaoteng Energy Technology Co., Ltd

Tel: +86-0571-88156846 Web: http://www.ct-cdm.com

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Prepared By	Hangzhou Chaoteng Energy Technology Co., Ltd
Contact	Physical address: Rm 1904-1906, International Sunyard, NO.1750 Jianghong Rd, Binjiang Dist, Hangzhou City, Zhejiang Province

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The Fujian Qingliu IFM (conversion of logged to protected forest) Project (hereafter "the project activity") is implemented in Qingliu County, Sanming City, Fujian Province of China by Fujian Qingliu Forestry Co., Ltd. The geographic coordinate of project is 116°38' ~117°11' E and 25°47' ~26°21' N, the total area is 180,630 ha, which includes the Improved Forest Management (IMF) of the forests in the conversion of logged to protected forest.

The area of the project activity is 5856 ha, including 698 subcompartments spreading over Dengjia Town, Lijia Town, Litian Town, Lingdi Town, Longjin Town, Linshe Town, Shaqiang Town, Songkou Town, Songxi Town, Tianyuan Town, Wenjiao Town, Yupeng Town, Changxiao Town of Fujian Qingliu Forestry Co. Ltd. All these departments are 100% owned by Fujian Qingliu Forestry Co. Ltd and have the legal right to forest ownership. The species involved in the project are Chinese Fir, Masson pine and Broad-leaf trees. These are common local tree species.

Prior to the implementation of the project activity, the trees are logged annually according to a valid and verifiable government-approved timber management plan for harvesting the project area. The implementation of the project activity converses the trees to protected forest to reduce the GHG emissions for about 2,858,234 tCO_2e in 30 years, the average annual emission reduction is 95,274 tCO_2e and Verified Carbon Units with buffer deduction is about 2,229,423 tCO_2e in 30 years, the average annual VCUs with buffer deduction is 74,314 tCO_2e.

The project generated 357,652 tCO_2e emission reductions within this monitoring period from 01/01/2017 to 30/11/2021 with the average annual emission reductions of 72,743 tCO2e. Total uncertainty for LtPF project is 9.60%, and the sampling accuracy of the project is 99.25%[1].

The project activity will contribute to the environment (biodiversity conservation and soil erosion control), thus contribute to sustainable development. Since 2017, the project has strictly banned the annual commercial timber harvest and only allowed the tending and managing. In order to control the annual forest timber volume and achieve reliable and verified carbon sequestration, a forest protection plan will be issued by project owner, and

[1] From Uncertainty analysis-MR sheet

strictly executed. The forest growth amount and national second-class forest investigation will be monitored by local forestry authority periodically.

On 27/11/2021, the validation team held the opening meeting with the representatives of project owner and performed face to face interviews with the stakeholders. On 27/12/2021 - 28/12/2021, the validation team performed the site inspection with the project proponent of the project activity. During this site inspection interviews with the representatives of the project owner, the consultant and project stakeholders were carried out to confirm selected information.

1.2 Sectoral Scope and Project Type

Sectoral scope 14 (AFOLU)

Improved Forest Management: Logged to Protected Forest (LtPF)

This project is not a grouped project.

1.3 Project Proponent

Organization name	**Fujian Qingliu Forestry Co., Ltd.**
Contact person	Jingwang Ma
Title	Director
Address	2nd Floor, Minghui Apartment, Changxing Middle Street, Longjin Town, Qingliu County
Telephone	+86-13857189391
Email	katrina103100@hotmail.com

1.4 Other Entities Involved in the Project

Organization name	**Hangzhou Chaoteng Energy Technology Co., Ltd**
Role in the Project	Project Consultant
Contact person	Wenliao Zhang
Title	Project Manager
Address	Rm 1806, International Sunyard, NO.1750 Jianghong Rd, Binjiang Dist, Hangzhou City, Zhejiang Province
Telephone	+86-18367817971

Email	zwl@ct-cdm.com

1.5 Project Start Date

The Project Start Date is 01/01/2017.

This is according to the resolution of the board of directors of Fujian Qingliu Forestry Co., Ltd. The board of directors unanimously agreed stop all commercial logging of forests in project area from 01-Jan-2017.

1.6 Project Crediting Period

The project crediting period is from 01/01/2017 to 31/12/2046 with the total length of 30 years.

1.7 Project Location

The project is located in Qingliu County, Sanming City, Fujian Province of China. The geo-coordinate range of the project is 116°38' ~117°11' E and 25°47' ~26°21' N. There are 698 subcompartments spreading over Dengjia Town, Lijia Town, Litian Town, Lingdi Town, Longjin Town, Linshe Town, Shaqiang Town, Songkou Town, Songxi Town, Tianyuan Town, Wenjiao Town, Yupeng Town, Changxiao Town of Fujian Qingliu County.

The schematic diagram of the location of the project is shown in figure 1 below:

Figure 1: The project location

1.8 Title and Reference of Methodology

VM0010 version 1.3: Methodology for Improved Forest Management: Conversion of Logged to Protected Forest

This methodology uses the latest versions of the following methodologies, modules and tools:

- CDM Tool for Calculation of the Number of Sample Plots for Measurements within A/R CDM Project Activities
- CDM Tool for testing significance of GHG emissions in A/R CDM project activities
- VCS methodology VM0003 Methodology for Improved Forest Management through Extension of Rotation Age

- VCS methodology VM0005 Methodology for Conversion of Low-Productive Forests to High-Productive Forests
- VCS methodology VM0007 REDD+ Methodology Framework (REDD-MF)
- VCS methodology VM0011 Methodology for Improved Forest Management: Calculating GHG Benefits from Logged to Protected Forest

VCS tool VT0001 Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities

1.9 Participation under other GHG Programs

Projects Registered (or seeking registration) under Other GHG Program(s)

The Fujian Qingliu IFM (conversion of logged to protected forest) Project is not been registered, or seeking registration under any other GHG programs.

Projects Rejected by Other GHG Programs

N/A

1.10 Other Forms of Credit

Emissions Trading Programs and Other Binding Limits

N/A

Other Forms of Environmental Credit

The project has neither intended to generate any other form of GHG-related environment credit for GHG emission reductions or removals claimed under the VCS Program, not any such credit has been or will be cancelled from the relevant program.

1.11 Sustainable Development

As one of the most precious ecological resources, forest is the key to biodiversity and all life forms. The protection of local forest will enrich the biodiversity and provide more opportunity for adaptive response to natural challenges and economic development (e.g. climate change). The project activity will result in significant carton sequestration and contribute to the environment (e.g. biodiversity conservation and soil erosion control), thus contribute to sustainable development.

	By implementing forest protection, the project prevented the release of greenhouse gases into the atmosphere during the monitoring period, mitigating climate change.

8 DECENT WORK AND ECONOMIC GROWTH	Creating local employment opportunities ： The implementation of the project.requires some rangers to protect the forest, Since the beginning of the project, we have employed about 30 forest rangers every year, thus improving the living standard of local people;
15 LIFE ON LAND	Sustainable forest management： By protecting 5856ha commercial forest, this project will benefit the restoration of the local ecosystem, increase the local forest cover to generate more oxygen, absorb more carbon dioxide, and promote the development of local sustainable forest management.

2 SAFEGUARDS

2.1 No Net Harm

Chinese Fir, Masson pine and Broad-leaf trees are main wood species for solid wood furniture in Fujian Province[2]. And project activity is to stop logging to protect forest. Therefore, there is no potential negative environmental or socio-economic impact due to the project.

2.2 Local Stakeholder Consultation

Fujian Qingliu Forestry Co., Ltd is a company that pays attention to the interests of the community. And the VCs project was also concerned and approved by the local forestry bureau before it was launched. VCs project is a new thing locally. Therefore, in order to better implement the VCs project in the future, the company makes an introduction to nearby stakeholders before the project starts, so as to obtain some feedback on the project, so as to better carry out the project. Fujian Qingliu Forestry Co., Ltd organized two stakeholder interviews on December 18, 2017 and December 28, 2017. The meeting explained the VCS project design and implementation, including the results of monitoring. And analysed the risks, costs and benefits the project may bring to local stakeholders. All Chinse laws and regulations covering workers' rights in the host country.

After the meeting, they conducted a questionnaire survey on stakeholders. Totally 50 questionnaires returned out of 50 with 100% response. The following is a summary of the key findings based on returned questionnaires. The Survey was conducted through distributing and collecting responses to a questionnaire in December 2016. Totally 50 questionnaires returned out of 50 with 100% response. The following is a summary of the key findings based on returned questionnaires.

[2] 福建实木家具用材树种资源的评价 - 中国知网 (cnki.net)

1. Attitude towards the proposed project

All of them support the implementation of the project, they think the protection of forest instead of logging is good for the environment, and will benefit the sustainable development.

2. The concern about the proposed project

The participants particularly hoping that the proposed project can improve local environmental situation and increase employment opportunities at the same time.

3. Conclusion

The survey shows that the proposed project is 100% supported by local people. It is because they believe the implementation of the project will bring multiple benefits.

Fujian Qingliu Forestry Co., Ltd has specially set up a VCs management office to handle suggestions and complaints from stakeholders on December 30, 2016. Stakeholders can make suggestions and complaints on the VCs project through telephone, e-mail, door-to-door, etc. When we receive complaints from others, we will organize the VCs management department to hold a meeting to discuss the problems and complaints of stakeholders. According to the content of the meeting, we will decide whether to adjust the plan or stop the project.

On 27/11/2021, the validation team held the opening meeting with the representatives of project owner and performed face to face interviews with the stakeholders. On 27/12/2021 - 28/12/2021, the validation team performed the site inspection with the project proponent of the project activity. During this site inspection interviews with the representatives of the project owner, the consultant and project stakeholders were carried out to confirm selected information.

2.3 AFOLU-Specific Safeguards

There is no risk to local stakeholders due to the project implementation.

1. Local stakeholder identification process and a description of results

   The local stakeholder mainly include the local households lives near by the project and the local government. Before start project, project owner had distributed questionnaires for local stakeholder to investigate the suggestion of them on the implementation of the project, including the impact on society, economy and life. 50 investigation questionnaires have been returned, of which, 60% are women, 60% are graduated from high school or inferior school, 100% are elder than twenty years old.

2. Risks to local stakeholders due to project implementation and how the project will mitigate such risks

   Fujian Qingliu Forestry Co., Ltd has established a risk control department to respond to complaints and suggestions from stakeholders. When the rights and interests of stakeholders are damaged or other emergencies, they can obtain the right to appeal and protest by means of telephone, e-mail, etc. The risk control department of the company will ensure that every complaint and suggestion is properly handled and that every complainant gets a satisfactory reply.

3. Risks to local stakeholder resources due to project implementation and how the project will mitigate such risks, including the plans to ensure the project will not impact local stakeholder's property rights without the free, prior and informed consent.

   Fujian Qingliu Forestry Co., Ltd has specially set up a VCS management office to handle suggestions and complaints from stakeholders on December 30, 2016. Stakeholders can make suggestions and complaints on the VCs project through telephone, e-mail, door-to-door, etc. When we receive complaints from others, we will organize the VCS management department to hold a meeting to discuss the problems and complaints of stakeholders. According to the content of the meeting, we will decide whether to adjust the plan or stop the project.

   As the forest land of the project is owned by the project owner, no forest households are involved. Since the implementation of the project on January 1, 2017, the VCS management office has received ten inquiries in total. And these inquiries are aimed at VCS itself, because the project does not involve forest land of other forest households. VCS is a relatively new kind in the local area, and the education level of local community residents is not high, and none of them have graduated from university. So they want to participate in the VCS project through door-to-door inquiry. The question most frequently asked by local farmers is whether their forest land can be used together for VCS projects. Ten record sheets of inquiries to be provided to VVB.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

- From 01/01/2017, the forests owner decided to converse the forest from logged to protected forest to improve the carbon stock. In the subsequent implementation, the forests are well protected without any harvest and disturbance.

- As the project activity area contains different forest types or forests with different carbon density, stratification is carried out in order to improve the accuracy and precision of carbon stock estimates. Based on the availability of data regarding the nature and composition of forest stocks in the project area, stratification is developed on the basis of existing vegetation stratification, where these are documented in the legal right to harvest. In the VCS-PD, 3 strata with the total area of 5,856 ha are specified according to the tree species.

- For the Non-permanence Risk, according to AFOLU Non-Permanence Risk Tool: VCS Version 4.0, the risks are analyzed in Non-permanence Risk Report. The risk value is 22.

3.2 Deviations

3.2.1 Methodology Deviations

There is no methodology deviation applicable to the project activity during this monitoring period.

3.2.1 Project Description Deviations

There are no project description deviations applied during this monitoring period.

3.3 Grouped Projects

This project is not relevant to the grouped project; there is no new instance of the project activity.

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	$V_{l,j,i,sp}$
Data unit	m^3
Description	Merchantable volume for tree l of species j in sample plot sp in stratum i
Source of data	Calculated from volume tables or equations linking diameter at breast height (DBH, at typically 1.3 m aboveground level), and merchantable height (MH), to commercial (merchantable) volume of trees in the sample plots above the minimum DBH set in the timber harvest plan. If locally derived equations or yield tables are not available use relevant regional, national or default equations from IPCC literature, national inventory reports or published peer -reviewed studies– such as those provided in Tables 4.A.1 to 4.A.3 of the GPG-LULUCF (IPCC 2003)
Value applied	See the detailed excel spreadsheet

Justification of choice of data or description of measurement methods and procedures applied:	It is necessary to verify the applicability of equations used. Allometric equations can be verified by both: 1. Verification of equation conditions Justification should be provided for the applicability of the equation to the project locations. Such justification should include identification of climatic, edaphic, geographical and taxonomic similarities between the project location and the location in which the equation was derived. Any equation used should have an r^2 value of greater than 0.5 (50%) and a p value that is significant (<0.05 at the 95% confidence level). 2. Additional field verification The following limited measures method must be used for field verification: select at least 10 trees per species distributed across the age range (but excluding trees less than 15 years old for which there is rarely a great relative inaccuracy in equations); measure DBH, and height to a 10 cm diameter top or to the first branch; calculate stem volume from measurements; and plot the estimated volume of all the measured trees along with the curve of volume against diameter as predicted by the allometric equation. If the estimated volume of the measured trees are distributed both above and below the curve (as predicted by the allometric equation) the equation may be used. The equation may also be used if the measured individuals have a volume consistently higher than predicted by the equation. The equation may not be used if >75% of the measured trees have a volume lower than the predicted curve. In this instance another equation must be selected.
Purpose of Data	Calculation of baseline emissions
Comments：	N/A

Data / Parameter:	CF_j
Data unit:	$tC \cdot td.m.^{-1}$
Description	Carbon fraction of dry matter for species j

Source of data	According to AR-CM-003-V01 version 1.0, the default value 0.5 tC·d.m.$^{-1}$ is used and the same value is used in all instances where this parameter is used.
Value applied	0.5
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	N/A

Data / Parameter	D_j
Data unit	t d.m. m^3
Description	Basic wood density of species j in t d.m. m^{-3}
Source of data	According to VM0010 version 1.3, it must be chosen with priority from higher to lower preference as follows: National species-specific or group of species-specific values (eg, from National GHG inventory); Species-specific or group of species-specific values from neighboring countries with similar conditions. When species-specific data from neighboring countries is of higher quality, being more representative of the species in the project scenario, it may be preferable to use these values than lower quality national data; Global species-specific or group of species-specific (eg, IPCC 2006 AFOLU Chapter 4 Tables 4.13 and 4.14). Species-specific wood densities may not always be available, and may be difficult to apply with certainty in the typically species rich forests of the humid tropics, hence it is acceptable practice to use wood densities developed for forest types or plant families or species groups. "Land Use Change and Forestry GHG Inventory (2013)" of "Second National Information Notification on China Climate Change" matches the first choice.

Value applied	Tree species / D_j: Chinese Fir 0.307; Masson Pine 0.38; Broad-leaved tree 0.482
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	N/A

Tree species	D_j
Chinese Fir	0.307
Masson Pine	0.38
Broad-leaved tree	0.482

Data / Parameter	$f_j(X, Y\ldots)$
Data unit	t d.m. tree^{-1}
Description	Allometric equation(s) for species j linking measured tree variable(s) to aboveground biomass of living trees
Source of data	Equations must have been derived using a wide range of measured variables (eg, DBH, Height, etc.) based on datasets that comprise at least 30 trees. Equations must be based on statistically significant regressions and must have an r^2 that is ≥ 0.8. The source of equation(s) must be chosen with priority from higher to lower preference, as available, as follows: a) National species-, genus-, family-specific; b) Species-, genus-, family-specific from neighbouring countries with similar conditions (ie, broad continental regions); c) National forest-type specific; d) Forest-type specific from neighbouring countries with similar conditions (ie, broad continental regions); e) Forest type-specific such as those provided Tables 4.A.1 to 4.A.3 of the GPG-LULUCF (IPCC 2003); or in Pearson, T., Walker, S. and Brown, S. 2005. Sourcebook for Land Use, Land- Use Change and Forestry Projects. Winrock International and the World Bank Biocarbon Fund. 57pp.; or in Chave, J., C. Andalo, S. Brown, M. A. Cairns, J. Q. Chambers, D. Eamus, H. Folster, F.

	Fromard, N. Higuchi, T. Kira, J.-P. Lescure, B. W. Nelson, H.Ogawa, H. Puig, B. Riera, T. Yamakura. 2005. Tree allometry and improved estimation of carbon stocks and balance in tropical forests. Oecologia 145: 87-99. Species-, genus- and family-specific allometric equations may not always be available, and may be difficult to apply with certainty in the typically species rich forests of the humid tropics. Hence it is acceptable practice to use equations developed for regional forest types, provided that their accuracy has been validated with direct site- specific data following guidance given below. If a forest-type specific equation is used, it should not be used in combination with species- specific equation(s) (ie, it must be used for all tree species).
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments：	It is necessary to validate the applicability of equations used. Source data from which equation(s) was derived should be reviewed and confirmed to be representative of the forest type/species and conditions in the project and covering the range of potential independent variable values. Allometric equations can be validated either by: 1. Limited Measurements select at least 30 trees (if validating forest type-specific equation, selection should be representative of the species composition in the project area, ie, species representation in roughly in proportion to relative basal area). Minimum diameter of measured trees must be 20cm and maximum diameter must reflect the largest trees present or potentially present in the future in the project area (and/or leakage belt); measure DBH, and height to a 10 cm diameter top or to the first branch; calculate stem volume from measurements and multiplying by species-specific density to gain biomass of bole; apply a biomass expansion factor to estimate total aboveground biomass from stem biomass37; and plot the estimated biomass of all the measured trees along with the curve of biomass against diameter as predicted by the allometric equation.

	If the estimated volume of the measured trees are distributed both above and below the curve (as predicted by the allometric equation) the equation may be used. The equation may also be used if the measured individuals have a biomass consistently higher than predicted by the equation. If >75% of the measured trees have a biomass lower than the predicted curve, destructive sampling must be undertaken or another equation must be selected 2. Destructive Sampling select at least 5 trees (if validating forest type-specific equation, selection should be representative of the species composition in the project area, ie, species representation in roughly in proportion to relative basal area) at the upper end of the range of independent variable values existing in the project area; measure DBH and commercial height and calculate volume using the same procedures/equations used to generate commercial volumes to which BCEFs will be applied; fell and weigh the aboveground biomass to determine the total (wet) mass of the stem, branch, twig, leaves, etc. Extract and immediately weigh subsamples from each of the wet stem and branch components, followed by oven drying at 70 degrees C to determine dry biomass; determine the total dry weight of each tree from the wet weights and the averaged ratios of wet and dry weights of the stem and branch components; and plot the estimated biomass of all the measured trees along with the curve of biomass against diameter as predicted by the allometric equation. If the estimated volume of the measured trees are distributed both above and below the curve (as predicted by the allometric equation) the equation may be used. The equation may also be used if themeasured individuals have a biomass consistently higher than predicted by the equation. If >75% of the measured trees have a biomass lower than the predicted curve another equation must be selected. Details of destructive sampling measurements are given in: Brown, S. 1997. Estimating biomass and biomass change of tropical forests: a primer. FAO Forestry Paper 134, Rome, Italy. Available at http://www.fao.org/docrep/W4095E/W4095E00.htm If using species-specific equations, and new species are encountered in the course of monitoring, new allometric equations must be sourced from the literature and validated, if necessary, as per requirements and procedures above.

	Default values must be updated whenever new guidelines are produced by the IPCC

Data / Parameter	$BCEF_R$
Data unit	t d.m.m^{-3}
Description	Biomass conversion and expansion factor applicable to wood removals in the project area
Source of data	The source of data must be chosen with priority from higher to lower preference as follows: Existing local forest type-specific; National forest type-specific or eco-region-specific (eg, from national GHG inventory); Forest type-specific or eco-region-specific from neighboring countries with similar conditions. Sometimes (c) might be preferable to (b); Global forest type or eco-region-specific (eg, IPCC 2006 INV GLs AFOLU Chapter 4 Table 4.5). Alternatively: BCEFR= BEFR * D Where BCEF values are not directly available, they can be calculated as Biomass Expansion Factor (BEF)* basic wood density (D). Application of this equation requires caution because basic wood density and biomass expansion factors tend to be correlated. If the same sample of trees was used to determine D, BEF or BCEF, conversion will not introduce error, therefore, it is acceptable to use this equation. If, however, basic wood density is not known with certainty, transforming one into the other might introduce error, as BCEF implies a specific but unknown basic wood density, therefore, all conversion and expansion factors must be derived or their applicability checked locally. "Land Use Change and Forestry GHG Inventory (2013)" of "Second National Information Notification on China Climate Change" matches the second choice.

Value applied	<table><tr><th>Tree species</th><th>$BCEF_R$</th></tr><tr><td>Chinese fir</td><td>0.502</td></tr><tr><td>Masson Pine</td><td>0.559</td></tr><tr><td>Broad-leaved tree</td><td>0.730</td></tr></table>
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments：	The combustion factor is a measure of the proportion of the fuel that is actually combusted, which varies as a function of the size and architecture of the fuel lcad (ie, a smaller proportion of large, coarse fuel such as tree stems will be burnt compared to fine fuels, such as grass leaves), the moisture content of the fuel and the type of fire (ie, intensity and rate of spread). Default values must be updated whenever new guidelines are produced by the IPCC

Data / Parameter	G_{gi}
Data unit	g kg^{-1} dry matter burnt
Description	Emission factor for stratum i for gas g
Source of data	Defaults can be found in Volume 4, Chapter 2, of the IPCC 2006 Inventory Guidelines in table 2.5
Value applied	Please refer to the spreadsheet
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments：	Default values shall be updated whenever new guidelines are produced by the IPCC

Data / Parameter	OF, SLF, WW
Data unit	Kg kg^{-1}
Description	OF = Fraction of wood products that will be emitted to the atmosphere between 3 and 100 years after production; SLF = Fraction of wood products that will be emitted to the atmosphere within 3 years of production; and WW = Fraction of extracted biomass effectively emitted to the atmosphere during production Wood waste fraction(WW): Winjum et al. 1998indicatethattheproportionofextracted biomass that is oxidized (burning or decaying) from the production of commodities to be equal to19%fordevelopedcountries, 24% for developing countries. Short-lived fraction (SLF) Winjumetal1998 give decay rates for proportions of wood products, which were converted to with short-term (<3yr) uses (applicable internationally) as below: Sawnwood 0.12 Woodbase panels 0.06 Other industrial roundwood 0.18 Paper and Paperboard 0.24 Additional oxidized fraction (OF) Winjum et al 1998 gives annual oxidation fractions for each class of wood products split by forest region (boreal, temperate and tropical). This methodology projects these fractions over 95 years to give the additional proportion that is oxidized between the 3rd and the 100th year after initial harvest

Wood Product Class	OF		
	Boreal	Temperat e	Tropical
Sawnwood	0.39	0.62	0.86
Woodbase panels	0.62	0.86	0.98
Other industrial roundwood	0.86	0.98	0.99

	Paper and paperboard	0.39	0.62	0.99

Source of data	According to VM0010 version 1.3, the default values are chosen

Value applied	<table><tr><th>Parameters</th><th>Species</th><th>Value</th></tr><tr><td>OF</td><td>Chinese fir/Masson Pine/Broad-leaved tree</td><td>0.62</td></tr><tr><td>SLF</td><td>Chinese fir/Masson Pine/Broad-leaved tree</td><td>0.12</td></tr><tr><td>WW</td><td>Chinese fir/Masson Pine/Broad-leaved tree</td><td>24%</td></tr></table>
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments：	N/A

Data / Parameter	RGR_i
Data unit	$tC.ha^{-1}.yr^{-1}$
Description	Forest regrowth rate post timber harvest for stratum i
Source of data	Regrowth rate must be calculated from either a) data generated in a reference area using measurements of timber volume in a chronosequence of replicated sample plots; or b) published data on forest growth after timber harvest of the same forest type within the same region as the project; or c) the IPCC default values for aboveground net biomass growth in natural forests
Value applied	<table><tr><th>Tree species</th><th>Value</th><th>Unit</th></tr><tr><td>Chinese fir</td><td>1.5</td><td>$m^3.ha^{-1}.yr^{-1}$</td></tr><tr><td>Masson pine</td><td>1.5</td><td>$m^3.ha^{-1}.yr^{-1}$</td></tr><tr><td>Broad-leaved tree</td><td>1.5</td><td>$m^3.ha^{-1}.yr^{-1}$</td></tr></table>

Justification of choice of data or description of measurement methods and procedures applied:	Method b is applied. The average annual regrowth is confirmed by local forest bureau. And the RGR_i can therefore be calculated by the biomass expansion factor, density and carbon fraction of the separate species
Purpose of Data	Calculation of baseline emissions
Comments：	Default values must be updated whenever new guidelines are produced by the IPCC

Data / Parameter	$V_{EX,j,i\|BSL}$
Data unit	$m^3.ha^{-1}$
Description	Mean volume of extracted timber per unit area for species j in stratum i
Source of data	The timber harvest plan sets the allowable mean extracted volume is equal to the merchantable volume of timber in the forest inventory ($V_{j,i\|BSL}$), based on legal limits
Value applied	please refer to ER sheet
Justification of choice of data or description of measurement methods and procedures applied:	The measurement method is from academic paper and equations developed for regional forest types. Please refer to ER sheet
Purpose of Data	Calculation of baseline emissions
Comments：	N/A

Data / Parameter	$A_{i,p}$
Data unit	Ha
Description	Area covered by stratum i over land parcel p
Source of data	Geodetic coordinates and/or Remote Sensing data and/or legal parcel records
Value applied	See the detailed Project Land Form

Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	It must be assumed ex-ante that land parcel boundaries and strata areas must not change through time

Data / Parameter	$A_{1,i,p}$
Data unit	Ha
Description	The area of stratum i in land parcel p that was harvested 1 year ago
Source of data	Geodetic coordinates, GIS Files or legal parcel records
Value applied	See the detailed Project Land Form
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	N/A

Data / Parameter	$A_{2\text{-}10,i,p}$
Data unit	Ha
Description	The area of stratum i in land parcel p that was harvested between 2 and 10 year ago
Source of data	Geodetic coordinates, GIS Files or legal parcel records

Value applied	See the detailed Project Land Form
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	N/A

Data / Parameter	$A_{11\text{-}20,i,p}$
Data unit	Ha
Description	The area of stratum i in land parcel p that was harvested between 11 and 20 year ago
Source of data	Geodetic coordinates, GIS Files or legal parcel records
Value applied	See the detailed Project Land Form
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	N/A

Data / Parameter	A_{t*}
Data unit	Ha
Description	Cumulative area harvested until time t*
Source of data	Geodetic coordinates, GIS Files or legal parcel records
Value applied	See the detailed Project Land Form

Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of Data	Calculation of baseline emissions
Comments:	N/A

Data / Parameter	$A_{s,p}$
Data unit	Ha
Description	Area of sample plot sp
Source of data	Recording and archiving of size of sample plots
Justification of choice of data or description of measurement methods and procedures applied:	Standard procedures for plot delineation in forest timber inventory surveys shall be used
Purpose of Data	Calculation of baseline emissions
Comments:	Ex-ante the size of the plots shall be defined and recorded in the monitoring plan

4.2 Data and Parameters Monitored

Data / Parameter	Illegal Logging PRA Results
Data unit	Dimensionless
Description	N/A
Source of data	PRA
Description of measurement methods	The PRA must evaluate whether timber harvest may be occurring in the project area and shall consist of semi-structured interviews / questionnaires.

and procedures to be applied:	If ≥ 10% of those interviewed/surveyed believe that illegal logging may be occurring within the project boundary then the limited on- the ground illegal logging survey shall be triggered. An additional output of the PRA shall be a depth of penetration of illegal logging pressure. A maximum distance shall be recorded for penetration into the forest from access points (such as roads, rivers, already cleared areas) for the purpose of harvesting timber.
Frequency of monitoring/recording	Every two years
Value monitored:	No illegal logging occurs during the monitoring period within the project boundary.
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante estimation shall be made of illegal logging in the with-project case. If the belief is that zero illegal logging will occur within the project boundaries then this parameter may be set to zero if clear infrastructure, hiring and policies are in place to prevent illegal logging.

Data / Parameter	Result of Limited Illegal Logging Survey
Data unit	Dimensionless
Description	N/A
Source of data	Limited on-the-ground illegal logging survey
Description of measurement methods and procedures to be applied:	Sampled by surveying multiple transects of known length and width across the access-buffer area to check whether new tree stumps are evident or not. The access-buffer area shall be equal in area to at least 1% of $A_{DIST\_IL,i}$
Frequency of monitoring/recording	Must to be repeated each time the PRA indicates a potential for illegal logging.

Value monitored:	N/A
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante an estimation shall be made of illegal logging in the with-project case. If the belief is that zero illegal logging will occur within the project boundaries then this parameter may be set to zero if clear infrastructure, hiring and policies are in place to prevent illegal logging.

Data / Parameter	$A_{burn,i,t}$
Data unit	Ha
Description	Area burnt in stratum i at time t
Source of data	Geodetic coordinates and / or Remote Sensing data
Description of measurement methods and procedures to be applied:	N/A
Frequency of monitoring/recording	Areas burnt must be monitored at least every five years
Value monitored:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	Standard quality control/quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.

Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante estimations of areas burned shall be based on historic incidence of fire in the Project region

Data / Parameter	$A_{dist,i,t}$
Data unit	Ha
Description	Area disturbed in stratum i at time t
Source of data	Geodetic coordinates and / or Remote Sensing data
Description of measurement methods and procedures to be applied:	N/A
Frequency of monitoring/recording	Areas disturbed shall be monitored at least every five years
Value monitored:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	Standard quality control/quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante estimations of areas burned must be based on historic incidence of fire in the Project region

Data / Parameter	$A_{DIST\_IL,i}$

Data unit	Ha
Description	Area potentially impacted by illegal logging in stratum i
Source of data	GIS delineation and ground truthing
Description of measurement methods and procedures to be applied:	Must be composed of a buffer from all access points (access buffer), such as roads and rivers or previously cleared areas. The width of the buffer shall be determined by the depth of degradation penetration as defined as a PRA output
Frequency of monitoring/recording	Repeated each time the PRA indicates a potential for degradation
Value monitored:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante a limited survey can be used to determine a likely depth of degradation penetration

Data / Parameter	$C_{DIST\_IL,i,t\mid PRJ}$
Data unit	tCO_2e
Description	biomass carbon of trees cut and removed through illegal logging in stratum i at time t
Source of data	Field measurements in sample plots
Description of measurement methods and procedures to be applied:	The sampling plan must be designed using plots systematically placed over the buffer zone so that they sample at least 3% of the area of the buffer zone ($A_{DIST\_IL,i}$). The diameter of all tree stumps will be measured and conservatively assumed to be the same as the DBH. Where the stump is a large buttress, several individuals of the same species nearby shall be located and a

	ratio of the diameter at DBH to the diameter of buttress at the same height above ground as the measured stumps shall be determined. This ratio will be applied to the measured stumps to estimate the likely DBH of the cut tree. The aboveground carbon stock of each harvested tree will be estimated using the allometric regression equations chosen for forest growth in the project scenario. The mean aboveground carbon stock of the harvested trees is conservatively estimated to be the total emissions and to all enter the atmosphere.
Frequency of monitoring/recording	Repeated each time limited sampling of ADIST_IL, indicates illegal logging
Value monitored:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	Standard quality control/quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	If species-specific equations are used and species cannot be identified from stumps then it shall be assumed that the harvested species is the species most commonly harvested. A PRA shall be used to determine the most commonly harvested species.

Data / Parameter	AP_i
Data unit	Ha
Description	Total area of illegal logging sample plots in stratum i
Source of data	Ground measurement
Description of measurement methods	A sampling plan must be designed using multiple sample plots systematically placed across the buffer zone so that they sample at least 3% of the area of the buffer zone.

and procedures to be applied:	
Frequency of monitoring/recording	Not more than five years
Value monitored:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	Standard quality control/quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante estimation should be made of area of plots. This should be set to exactly 3% of the buffer zone $A_{DIST\_IL,i}$

Data / Parameter	PMP_i
Data unit	%
Description	Merchantable biomass as a proportion of total aboveground tree biomass for stratum i within the project boundaries
Source of data	Within each stratum divide the summed merchantable biomass (defined as total gross biomass of a tree 15cm DBH or larger) by the summed total of aboveground tree biomass.
Description of measurement methods and procedures to be applied:	A sampling plan must be designed using multiple sample plots systematically placed across the buffer zone so that they sample at least 3% of the area of the buffer zone.
Frequency of monitoring/recording	Not more than five years
Value monitored:	N/A

Monitoring equipment:	N/A
QA/QC procedures to be applied:	Standard quality control/quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex-ante a time zero measurement shall be made of this factor. The timber harvest plan sets the allowable mean extracted volume from the merchantable volume of timber in the forest inventory ($V_{j,i\|BSL}$), based on legal limits.

Data / Parameter	Ai
Data unit	Ha
Description	Area covered by stratum i
Source of data	Geodetic coordinates and/or Remote Sensing data and/or legal parcel records
Description of measurement methods and procedures to be applied:	The stratum is from the second class forestry inventory
Frequency of monitoring/recording	Every ten years.

<table>
<tr><td>Value applied:</td><td>

<table>
<tr><th>Serial number of strata</th><th>Area (ha)</th><th>Tree species</th></tr>
<tr><td>1</td><td>186.1</td><td>Chinese Fir</td></tr>
<tr><td>2</td><td>2037.2</td><td>Masson Pine</td></tr>
<tr><td>3</td><td>3632.7</td><td>Broad-leaf tree</td></tr>
<tr><td>Total</td><td colspan="2">5856</td></tr>
</table>

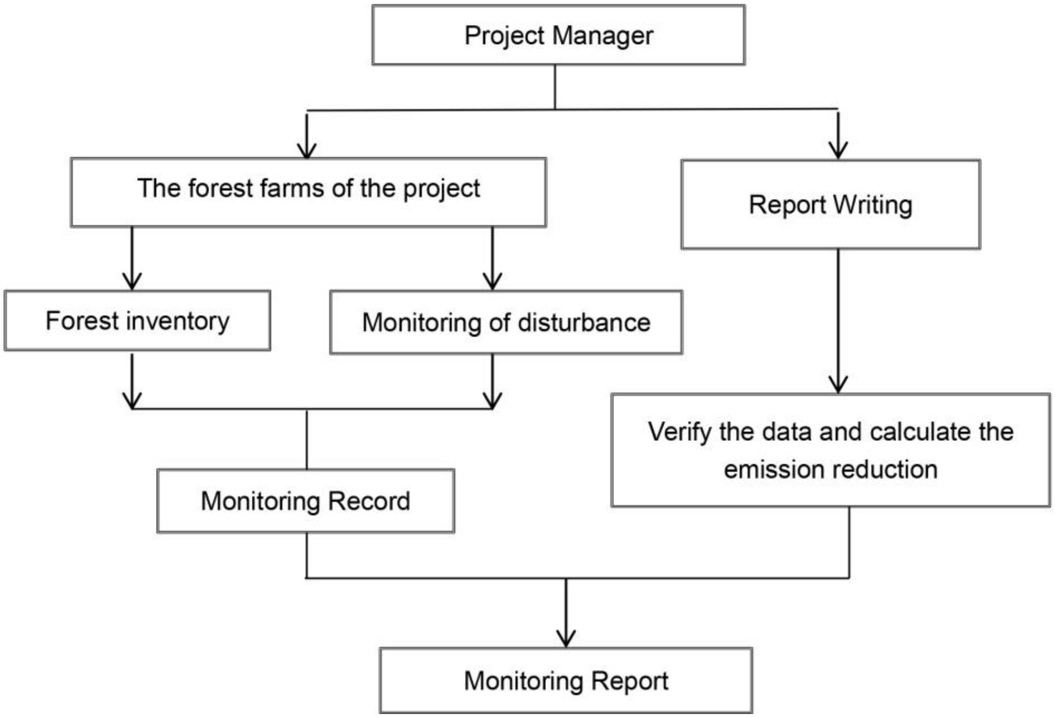
</td></tr>
<tr><td>Monitoring equipment:</td><td>Tape Measure</td></tr>
<tr><td>QA/QC procedures to be applied:</td><td>Standard quality control / quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.</td></tr>
<tr><td>Purpose of Data</td><td>For the calculation of the baseline and project emissions.</td></tr>
<tr><td>Calculation method:</td><td>N/A</td></tr>
<tr><td>Comments:</td><td>In the baseline scenario strata areas must not change through time. In the project scenario it must be assumed ex-ante that stand boundaries and strata areas must not change through time. Ex post adjustments of the project scenario strata may be needed if unexpected disturbances occur during the project crediting period, severely affecting different parts of an originally homogenous stratum. This disturbance will be delineate as a separate stratum for the purpose of monitoring the carbon stock changes.</td></tr>
</table>

Data / Parameter	DBH
Data unit	cm
Description	Diameter at breast height of tree
Source of data	On site measuring on the sample spot.

Description of measurement methods and procedures to be applied:	The National Forest Resource Continuous Investigation Technical Regulation issued by the State Forestry Bureau has detailed requirement of the measurement method.
Frequency of monitoring/recording	Not more than five years
Value applied:	See the MR-ER calculation sheet
Monitoring equipment:	Tape Measure
QA/QC procedures to be applied:	Standard quality control / quality assurance (QA/QC) procedures for forest inventory including field data collection and data management shall be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or form the IPCC GPG LULUCF 2003, is recommended.
Purpose of Data	Calculation of tree volume, then to carbon stock change further to the project emissions.
Calculation method:	N/A
Comments:	As for the project tree species, there are no allometric equation applied in the project area, the average annual growth and biomass expansion method is adopted for the estimated calculation of carbon stock change. Based on the DBH. and local volume table, the volume can be calculated, combined by the BCEF and CF, the carbon stock can be obtained.

4.3 Monitoring Plan

The project proponent and consultant will set up a team together to conduct the monitoring. The team is in charge of collecting, monitoring and verifying the data, while the project manager will be assisted by the consultant company. The findings should be reported to the project manager and work out a solution. The operational and management structure is as follows:



Monitoring is required to

a) determine changes in forest carbon stocks and greenhouse gas emissions from project activity;

b) confirm project activity; and

c) determine changes in forest carbon stocks and greenhouse gas emissions from disturbance and illegal logging.

In some cases, monitoring may also be implemented to update stratification.

The monitoring plan addresses the monitoring of project implementation, the monitoring of actual carbon stock changes from project activity, and estimation of ex-post net carbon stock changes from the conversion of logged to protected forest.

All data collected as part of monitoring will be archived electronically and be kept at least for 2 years after the end of the project crediting period. All measurements will be conducted according to relevant standards.

Data archiving shall take both electronic and paper forms, and copies of all data shall be provided to each project participant.

All electronic data and reports shall also be copied on durable media such as CDs and copies of the CDs are to be stored in multiple locations.

The archives shall include:

- Copies of all original field measurement data, laboratory data, data analysis spreadsheets;
- Estimates of the carbon stock changes in all pools and non-CO_2 GHG and corresponding calculation spreadsheets;
- GIS products; and
- Copies of the measuring and monitoring reports.

Information must be provided, and recorded in the VCS-PD, to establish that:

- The geographic position of the project boundary is recorded for all areas of land;
- The geographic coordinates of the project boundary (and any stratification inside the boundary) are established, recorded and archived. This will be achieved by field survey (e.g. using GPS) or by using geo-referenced spatial data (e.g. maps, GIS datasets, aerial photography, or geo-referenced remote sensing images);
- Commonly accepted principles of forest inventory and management are implemented; Standard operating procedures (SOPs) and quality control/quality assurance (QA/QC) procedures for forest inventory including field data collection and data management will be applied. SOPs already applied in national forest monitoring or available from published handbooks or from the IPCC GPG LULUCF 2003 will be used.

The project plan, together with a record of the plan as actually implemented during the project, shall be available for validation or verification as appropriate.

Carbon stocks will be measured according to the stock assessment equations with field sampling based on forest inventory methods. Various sources exist to assist with the design of a verifiable forest field inventory based on best practice for sampling, data management and analysis (Box 3).

In the project area the inventory plan is specified as below:

a) adequate forest stratification, sample size estimation methods and consider uncertainty:

The forest stratification is based on the species, which is adequate according to the methodology. The sample size estimation methods, allocation among strata and uncertainty consideration is according to the "Calculation of the number of sample plots for measurements within A/R CDM project activities" (version 02.1.0) approved by the CDM Executive Board.

b) a sampling framework including sample size, plot size, plot shape and information to determine plot location:

The design of a verifiable forest field inventory based on best practice for sampling, data management and analysis are selected from the Box 3 of the methodology. The sample size estimation methods, allocation among strata and uncertainty consideration is according to the most recent version of the tool for the "Calculation of the number of sample plots for measurements within A/R CDM project activities" (version 02.1.0) approved by the CDM Executive Board.

For the baseline scenario, the calculation process is shown below:

Parameter	Unit	Description
n	dimensionless	Number of sample plots required for estimation of biomass stocks within the project boundary
n_i	dimensionless	Number of sample plots allocated to stratum i for estimation of biomass stocks within the project boundary

In the baseline scenario:

n_{BSL} for n and $n_{BSL,i}$ for n_i.

In the project scenario:

N_{PROJ} for n and $n_{PROJ,i}$ for n_i

Because the terrain of the sample plot is rugged, we enlarged the sample plot area during actual monitoring, and the number of sample plots has not changed. The sample plot will be 0.0667 ha and at least 3 sample plots will be selected in 1. Approximate value of the standard deviation of biomass stock in each stratum at the time of estimation is either known from existing data applicable to the project area or existing data related to a similar area, or is estimated on the basis of a preliminary sample or an expert judgement. Number of sample plots required for estimation of biomass stocks within the project boundary is calculated iteratively.

Therefore, the following simplified equation can be used for estimating the number of sample plots according to the CDM tool:

$$n = \left(\frac{t_{VAL}}{E}\right)^2 \times \left(\sum_i w_i \times S_i\right)^2 \quad (1)$$

Where:

n	Number of sample plots required for estimation of biomass stocks within the project boundary; dimensionless;
t_{VAL}	Two-sided Student's t-value at infinite degrees of freedom for the required confidence level; dimensionless;
E	Acceptable margin of error (i.e. one-half the confidence interval) in estimation of biomass stock within the project boundary; t d.m. (or t d.m. ha^{-1}), i.e. in the units used for S_i;
w_i	Relative weight of the area of stratum i (i.e. the area of the stratum i divided by the project area); dimensionless;

S_i	Estimated standard deviation of biomass stock in stratum i; t d.m. (or t d.m. ha^{-1}); and
i	1, 2, 3, … biomass stock estimation strata within the project boundary.

After the estimation of total number of sample plots (n), allocation of number of sample plots among strata is calculated as:

$$n_i = n * \frac{w_i * S_i}{\sum_i w_i * S_i} \quad (2)$$

Where:

n_i	Number of sample plots allocated to stratum i; dimensionless
n	Number of sample plots required for estimation of biomass stocks within the project boundary; dimensionless
w_i	Relative weight of the area of stratum i (i.e. the area of the stratum i divided by the project area); dimensionless;
S_i	Estimated standard deviation of biomass stock in stratum i; t d.m. (or t d.m. ha^{-1}); and
i	1, 2, 3, … biomass stock estimation strata within the project boundary.

Based on the data of biomass stocks in a carbon pool in the baseline scenario, the estimation of number of sample plots required in shown in table 9 below:

Table 9: The estimation of number of sample plots required

Strata Number	Stratum Name	Area (ha)	W_i	W_i*S_i	Plot Quantity	Rounded Plot Quantity
1	Chinese Fir	186.1	0.03	9.75	1.10	2
2	Masson pine	2037.2	0.35	69.66	7.90	8
3	Broad-leaf trees	3632.7	0.62	196.37	21.13	22
Total Sample Size					30.13	
TOTAL NUMBER OF PLOTS						**32**

* Where the confidence level is 95% as required in the methodology VM0010 version 1. 3 and D_f is ∞. Therefore, t_{VAL} is 1.96.

The first monitoring period is 01/01/2017—30/11/2021.

The monitoring campaign includes the ages, species, DBH and any parameters the needed.

4.4 Baseline Emissions

Baseline projections are calculated ex-ante and are not adjusted through-out the project lifetime.

The net carbon stock change to be converted to emissions is equal to the carbon stock change as a result of timber harvest plus the carbon stock change resulting from conversion and retirement of wood products minus carbon sequestration from forest regrowth after harvest.

In order to generate the annual carbon stock change in the baseline scenario, the total net change in carbon stocks for parcels within is multiplied by the area of forest in the particular age class.

The annualized calculations vary between years 1, 2-10; 10-20; and all years since the start of the project activity, depending on which decay functions apply.

Therefore, the net change in carbon stock from wood products and logging slash across all parcels within the first year of harvest in the baseline is calculated as:

$$\Delta C_{NET,\ BSL(1)} = \sum_{i=1}^{M} \sum_{p=1}^{p} A_{1,i,p} \times (\left(\frac{\Delta C_{DWSLASH,i,p,BSL}}{10}\right) + C_{WPO,i,p,BSL} + \left(\frac{\Delta C_{WP100,i,p,BSL}}{20}\right) \quad (3)$$

The net change in carbon stock from wood products and logging slash across all parcels the years 2-10 since harvest in the baseline are calculated as:

$$\Delta C_{\mathrm{NET|BSL(2-10)}} = \sum_{i=1}^{M} \sum_{p=1}^{p} A_{2-10,i,p} \times ((\frac{\Delta C_{DWSLASH,i,p,BSL}}{10}) + (\mathrm{C_{WP100,i,p,BSL}}/20) \quad (4)$$

The net change in carbon stock from wood products across all parcels the years 11-20 since harvest in the baseline are calculated as:

$$\Delta C_{\mathrm{NET|BSL(11-20)}} = \sum_{i=1}^{M} \sum_{p=1}^{p} A_{11-20,i,p} \times (\Delta \mathrm{C_{WP100,i,p,BSL}}/20) \quad (5)$$

The net change(sequestration) in carbon stock due to forest regrowth across all parcels in all years since harvest in the baseline scenario are calculated according to equation 6 below. Note that there will be no more emissions quantified from decay of logging slash or wood products.

$$\Delta C_{NET|BSL(11-20)} = \sum_{i=1}^{M} \sum_{p=1}^{p} A_{i,p,t} \times (-\Delta C_{RG,i,p,BSL}) \quad (6)$$

Therefore, net change in carbon stock across all parcels harvested over each year of the project crediting period in the baseline scenario since the start of the project activity is calculated as:

$$\Delta C_{NET,BSL,t^*} = \triangle C_{NET,BSL(1)} + \triangle C_{NET,BSL(2-10)} + \triangle C_{NET,BSL(11-20)} + \triangle C_{NET|BSL(1+)} \quad (7)$$

The net carbon stock change in the baseline scenario since the start of the project activity must be converted to net greenhouse gas emissions and is calculated as:

$$GHG_{NET,BSL,t^*} = \Delta C_{NET,BSL,t^*} \times \frac{44}{12} \quad (8)$$

The baseline emission process has been demonstrated in the PD of the project, the outcome during this crediting period is listed in the following:

Period	$GHG_{NET,BSL,t}$(tCO_{2e})
01/01/2017-31/12/2017	19,283
01/01/2018-31/12/2018	21,331
01/01/2019-31/12/2019	25,067
01/01/2020-31/12/2020	27,285
01/01/2021-30/11/2021	27,793
Total	**120,759**
Average annual $GHG_{NET\|BSL}$	**24,561**

4.5 Project Emissions

The net greenhouse gas emissions in the project scenario will be equal to emissions resulting from forest disturbance (both illegal logging and natural disturbances) minus carbon sequestration through ongoing forest growth.

$$\Delta C_{AB,t,PRJ} = (\sum_{i=1}^{M} (A_i \times \frac{C_{AB,i,t_2,PRJ} - C_{AB,i,t_1,PRJ}}{T})) \times \frac{44}{12} \quad (9)$$

Therefore, based on the IPCC 2006 Inventory Guidelines, estimation of greenhouse gas emissions from biomass burning shall be calculated as:

$$\Delta C_{DIST-FR,t,PRJ} = (\sum_{i=1}^{M} A_{burn,i,t} \times B_{i,t,PRJ} \times COMF_i \times G_{g,i} \times 10^{-3} \times GWP_{CH_4} \quad (10)$$

As there is no fire occurred during the monitoring period, $\Delta C_{DIST\text{-}FR,t,PRJ}$ is equal to 0.

It is conservatively assumed that the natural disturbance is a stand-replacing disturbance, and that the biomass change as a result of the natural disturbance ($\Delta C_{DIST,t,PRJ}$) is emitted in the year of disturbance.

$$\Delta C_{DIST,t,PRJ} = (\sum_{i=1}^{M} (A_{dist,i,t} \times \sum_{j=1}^{J} [C_{AB,j,i,BSL}]) \times \frac{12}{44} \quad (11)$$

As indicates by the relevant statement issued by the local authority, no natural disasters occurred during the monitoring period, $\Delta C_{DIST,t,PRJ}$ is equal to zero.

Illegal logging

A participatory rural appraisal (PRA) of the communities surrounding the project area must be completed to determine if there is the potential for illegal extraction of trees from the project area. If this assessment finds no potential pressure for these activities then illegal logging ($\Delta C_{DISTLI,i,t,PRJ}$) can be assumed to be zero and no monitoring is needed.

If the results of the PRA suggest that there is a potential for illegal logging activities, then limited field sampling must be undertaken.

Therefore, the PP have no right to harvest more in other parcels outside the project activity.

Therefore, where the PRA or the limited sampling indicate no illegal logging occurring:

$\Delta C_{DIST\_IL,t,PRJ} = 0$

Where the PRA and the limited sampling indicate degradation is occurring, net carbon stock changes as a result of illegal logging shall be calculated as:

$$\Delta C_{DIST-IL,t,PRJ} = (\sum_{i=1}^{M} (A_{DIST-IL,j} \times \frac{\Delta C_{DIST-IL,i,t,PRJ}}{AP_i}) \quad (12)$$

Therefore, net greenhouse gas emissions in the project scenario in year t, is calculated as:

$$\Delta C_{NET,t,PRJ} = (\Delta C_{DIST-FR,t,PRJ} + \Delta C_{DIST,t,PRJ} + \Delta C_{DIST-IL,t,PRJ}) - \Delta C_{AB,t,PRJ} \quad (13)$$

The net greenhouse gas emissions across in the project scenario since the start of the project activity is calculated as:

$$GHG_{NET,PRJ} = \sum_{t=1}^{t^*} \Delta C_{NET,t,PRJ} \quad (14)$$

$\triangle C_{DIST-FR,t,PRJ}$,$\triangle C_{DIST,t,PRJ}$,$\triangle C_{DIST\_IL,l,t,PRJ}$ are zero during the monitoring period, on-going growth rate is measured by the project owner based on the sample data, the details are listed below:

Period	$\Delta C_{DIST-FR,t,PRJ}(tCO_2)$	$\Delta C_{DIST,t,PRJ}(tCO_2)$	$\Delta C_{DIST-IL,t,PRJ}(tCO_2)$	$\Delta C_{AB,t,PRJ}(tCO_2)$	$\Delta C_{NET,t,PRJ}(tCO_2)$
01/01/2017-31/12/2017	0	0	0	73,611	-73,611
01/01/2018-31/12/2018	0	0	0	73,611	-73,611
01/01/2019-31/12/2019	0	0	0	73,611	-73,611
01/01/2020-31/12/2020	0	0	0	73,611	-73,611
01/01/2021-30/11/2021	0	0	0	67,477	-67,477
Total	0	0	0	361,921	-361,921
Average	0	0	0	73,611	-73,611

4.6 Leakage

Activity shifting leakage

The project does not consider the activity shifting leakage because: In China, the forest timber harvest is strictly controlled by the authority. Also, the China Forest Law also clearly stipulates the punishment for the illegal logging, which not only requires 5-10 times compensation of replanting, but also 2-10 times economic penalty. In China, the timber harvest is tightly controlled by the forestry authority, the illegal logging is severely punished.

The project does not involve in the activity shifting leakage due to the following reasons:

In China, the forest timber harvest is strictly controlled by the authority. The stated council issued the annual timber harvest volume limit to each provinces every fives at the beginning of every national 5-year plan. And the provincial forestry authority issued the timber harvest approval and restrictions to its subordinate based on its limit. And its subordinate forestry authority did the same way for the timber harvest and transportation approval as its superior issued.

Also, the China Forest Law also clearly stipulate the punishment for the illegal logging, which not only requires 5-10 times compensation of replanting, but also 2-10 times economic penalty.

Definitely, in China, the timber harvest is tightly controlled by the forestry authority, the illegal logging is severely punished.

Therefore, for the project activity, even if the project proponent has more than one commercial forest parcels, the timber harvest limit is planned in advance by the forestry authority, they have no right to harvest more in other parcels outside the project activity.

Market leakage

According to the VM0010 version 1.3, the leakage factor is defined as considering where in the country logging will be increased as a result of the decreased supply of the timber caused by the project. If the areas liable to be logged have a higher ratio of merchantable biomass to total biomass higher than the project area it is likely that the proportional leakage is higher and vice versa.

For the project,

- According to the 13th Five-year Forest Harvest Limit issued by State Council (Guohan [2016] No.32)[3], the total harvest volume limit from 2016 to 2020 is 25,403.6*10^4 m^3, and the total harvest volume limit of Fujian Province is 2,173.3*10^4 m^3.The harvest volume when the proposed project absent is 16.2*10^4 m^3 from 2017 to 2020, extremely low compared to provincial level and far below the country level in the same time period. The harvest volume in

[3] http://www.gov.cn/zhengce/content/2016-02/16/content_5041486.htm

the baseline is only 0.75% of the total harvest volume in Fujian Province and 0.064% of the host country level, far less than the 25% indicated by VCS standard. The reduction in timber supply caused by the project activities is insignificant compared with the market of the whole Fujian Province. Therefore, the project activities will not lead to changes in the balance of supply and market demand. The stability of timber prices can also prove this view. According to *FUJIAN STATISTICAL YEARBOOK 2020*[4], the timber price index from 2016 to 2018 was 96.6%, 98.3% and 101.7% (of preceding year) respectively, indicating the price is stable with slightly decreasing.

- China's annual extracted volumes are allocated by the country to provinces and then to counties and cities. It is a top-down governmental regulation. Whether the county, city or company harvests or not will not affect the decision-making of the upper level. That is, no new concessions will be assigned. If a concession owner decides to give up the rights of logging, he can't trade or transfer the logging right to any other. So even if the market demand for timber increases, Under the existing legal framework, annual extracted volumes cannot be increased. And China's penalty on illegal logging is very strong. Regulations of the People's Republic of China on forestry law Article 38 and Article 39 clearly stipulates the punishment for the illegal logging. According to the volume and quantity of illegal logging, punishment includes not only 5-10 times compensation of replanting, but also 2-10 times economic penalty.
- In general, without new logging concessions, the harvest can't be done. And due to the strictly enforced law, illegal logging is absent with frequent patrol and high economic penalty. So the leakage emission will not be shifted to anywhere in the host country. Although the risk of market leakage caused by project activities is very low, we still discuss it again according to the VCS Standard V4.2 for the sake of conservatism. According VCS Standard V4.2 (3.14.9) states that "IFM projects may apply the appropriate market leakage discount factor identified in Table 3 to the net change in carbon stock associated with the activity that reduces timber harvest to determine market leakage".
- Qingliu IFM project is a logged to protected forest IFM activity. The project activities permanently protect the forests in the project area, and harvesting activity is permanently stopped. As mentioned earlier, even if the market demand for timber increases, Under the existing legal framework, annual extracted volumes cannot be increased. So project activities are more in line with option 3 (IFM activity that substantially reduces harvest levels permanently). And market leakage discount factor conditional upon where timber harvest is likely to be shifted follow the VCS Standard table 3 and VCS Methodology. Therefore, each project must calculate within each stratum the ratio of merchantable biomass to total biomass (PMP_i). This shall then be compared to the ratio of merchantable biomass to total biomass for each forest type (PML_{FT}). we select Fujian province which located in the subtropical area with subtropical maritime monsoon climate and dominated by forest type of Subtropical humid forest as the reference area (harvest most likely to be displaced) since China has a vast and varied territory across tropical, subtropical, temperate, cold temperate, cold and its climate, elevation and wood supply and demand are huge different. We have

[4] 福建统计年鉴-2020 (fujian.gov.cn)

set 3 stratum based on the tree species which are Chinese Fir, Masson pine and Broad-leaf trees for the project.

Hence, the calculation is below, in the base year:

$PMP_{Chinese\ Fir}$=692 m^3/18924 m^3=3.65%[5]

$PMP_{Masson\ pine}$=10925 m^3/237266 m^3=4.6%[6]

$PMP_{Broad\text{-}leaf\ trees}$=26033 m^3/449142 m^3=5.8%[7]

$PML_{Subtropical\ humid\ forest}$=2173.3*$10^4$ m^3/24853.23*10^4 m^3=8.74%[8]

$PML_{Subtropical\ humid\ forest}$ is 139.5% greater than $PMP_{Chinese\ Fir}$

$PML_{Subtropical\ humid\ forest}$ is 90% greater than $PMP_{Masson\ pine}$

$PML_{Subtropical\ humid\ forest}$ is 50.7% greater than $PMP_{Broad\text{-}leaf\ trees}$

PMP data comes from ER calculation table. And PML data comes from *2017 China forestry statistical yearbook*[9]. From above calculation, it is indicated that the PML_{FT} is > 15% greater than PMP_i, the ratio of merchantable biomass to total biomass is higher within the area to which harvesting is displaced compared to the project area. The PP have 765.47ha Ecological public welfare forest in Bakou Forest Farm, 5032.87ha Ecological public welfare forest in Shengtai Forest Farm, 1297.8ha Ecological public welfare forest in Liaowu Forest Farm, 345.6ha Ecological public welfare forest in Zhuangqian Forest Farm, 166.13ha Ecological public welfare forest in Xiahe Forest Farm, and 338.67ha Ecological public welfare forest in Qinkou Forest Farm. These are ecological public welfare forests. The management of these forests is subsidized, but cutting is prohibited by the state. SO the owner does not control any other forests that can be harvested commercially, However, So project will not result in the significant national concession and illegal logging. Therefore, whether according to VCS Standard table 3 or VCS Methodology, the market leakage discount factor is 20%.

- In summary, LFME = 0.2.

All the regulations and laws with regard to no new concessions and the penalty on illegal logging and data sources has been submitted to and verified by DOE.

4.7 Net GHG Emission Reductions and Removals

Therefore, the project GHG credits are calculated as:

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5 From ER calculation sheet

6 From ER calculation sheet

7 From ER calculation sheet

8 https://navi.cnki.net/knavi/yearbooks/YCSRT/detail

9 中国林业统计年鉴 2017 - 中国知网 (cnki.net)

$$GHG_{CREDITS,LTPF,t^*} = GHG_{NET,BSL,t^*} - GHG_{NET,PRJ,t^*} - GHG_{LK,LTPF,t^*} \quad (15)$$

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01/01/2017-31/12/2017	19,283	-73,611	3,857	89,038
01/01/2018-31/12/2018	21,331	-73,611	4,266	90,676
01/01/2019-31/12/2019	25,067	-73,611	5,013	93,664
01/01/2020-31/12/2020	27,285	-73,611	5,457	95,439
01/01/2021-30/11/2021	27,793	-67,477	5,559	89,711
Total	**120,759**	**-361,921**	**24,152**	**458,528**
Average	**24,561**	**-73,611**	**4,912**	**93,260**

Adjusted for uncertainty

Estimated greenhouse gas emissions and emission reductions from IFM activities have uncertainties associated with parameters and coefficients including estimates of area, carbon stocks, regrowth and expansion factors. It is assumed that the uncertainties associated with input data are available, either as default uncertainty values given in most recent IPCC guidelines, or as statistical estimates based on sampling.

Uncertainty at all times is defined at the 95% confidence interval where the estimated variance exceeds +/- 15 percent from the mean. Procedures including stratification and the allocation of sufficient measurement plots will help ensure that low uncertainty results and ultimately full crediting can result.

Uncertainties arising from the measurement and monitoring of carbon pools and greenhouse gases shall always be quantified. Errors in each pool shall be weighted by the size of the pool so that projects may reasonably target a lower precision level in pools that only form a small proportion of the total stock.

For both the baseline and the with-project case the total uncertainty is equal to the square root of the sum of the squares of each component uncertainty and is calculated at the time of reporting through propagating the error in the baseline stocks and the error in the project stocks. Therefore, total uncertainty for the project is calculated as:

$$U_{TOTAL,LtPF} = \sqrt{U_{PRJ}^2 + U_{BSL}^2} \quad (16)$$

If $U_{total|LtPF} \leqslant 0.15$ then no deduction will result for uncertainty.

If $U_{total|LtPF} > 0.15$ then the amount of greenhouse gas emission credits associated with IFM activities will be deducted as follows:

$$Credits_{total,LtPF} = GHG_{credits,LtPF} \times (1 - U_{total,LtPF}) \quad (17)$$

Uncertainty for the Baseline Scenario

According to IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories, the uncertainty in the baseline scenario is associated with parameters and coefficients including estimates of area, carbon stocks, regrowth and expansion factors, the calculation process follows the two rules below:

Rule A: Where uncertainties are to be combined by addition, the standard deviation of the sum will be the square root of the sum of the squares of the standard deviations of the quantities that are added with the standard deviations all expressed in absolute terms (this rule is exact for uncorrelated variables).

Using this interpretation, a simple equation can be derived for the uncertainty of the sum, that when expressed in percentage terms become:

$$\mathrm{U_{total}} = \frac{\sqrt{(\mathrm{U_1} \times \mathrm{E_1})^2 + (\mathrm{U_2} \times \mathrm{E_2})^2 + \ldots + (\mathrm{U_n} \times \mathrm{E_n})^2}}{\mathrm{E_1} + \mathrm{E_2} + \ldots + \mathrm{E_n}} \quad (18)$$

Where:

U_{total}	is the percentage uncertainty in the sum of the quantities (half the 95% confidence interval divided by the total (i.e. mean) and expressed as a percentage);
E_i and U_i	are the uncertain quantities and the percentage uncertainties associated with them, respectively.

Rule B: Where uncertain quantities are to be combined by multiplication, the same rule applies except that the standard deviations must all be expressed as fractions of the appropriate mean values (this rule is approximate for all random variables).

A simple equation can also be derived for the uncertainty of the product, expressed in percentage terms:

$$U_{total} = \sqrt{U_1^2 + U_2^2 + \dots + U_n^2} \quad (19)$$

Where:

U_{total}	is the percentage uncertainty in the sum of the quantities (half the 95% confidence interval divided by the total (i.e. mean) and expressed as a percentage);
U_i	are the percentage uncertainties associated with each of the quantities.

The uncertainty is calculated per stratum by dividing the 95% confidence interval by the mean value of the uncertainty quantities. The corresponding standard deviation is calculated over the measured plot values of the uncertainty quantities. The 95% confidence interval is calculated based on the standard deviation and the t-value for n-1 degree of freedom of plots per stratum.

As the uncertainty in the baseline scenario is associated with parameters and coefficients including estimates of area, carbon stocks, regrowth and expansion factors, the calculation of the 4 parameters and coefficients are shown below:

1） Uncertainty of Area:

In the baseline scenario, the area of every stratum are quoted from the field survey inventory data and legal right of harvest, so no data are from measurement and monitoring. Therefore, it is deemed as 0 in the period of validation. It will be monitored in the period of verification.

2） Uncertainty of expansion factors:

The Sample size, Sample mean and Standard error of expansion factors are quoted from Forestry Part of China's greenhouse gas emissions list divided as tree species, and the uncertainty of expansion factors are calculated as below:

For Chinses Fir:

Uncertainty of BCEF- Chinese Fir	2.60%		
Uncertainty of BEF Chinese Fir	2.48%	Uncertainty of D- Chinese Fir	0.80%
BEF		D	
Sample size	860	Sample size	54
Sample mean (BEF)	1.634	Sample mean (D)	0.307
Standard deviation	0.605	Standard deviation	0.009
Average error	0.021	Average error	0.001
Confidence level	0.95	Confidence level	0.95
Degree of freedom	859	Degree of freedom	53
Two-sided Student's t-value	1.96	Two-sided Student's t-value	2.01
Allowable error	0.040	Allowable error	0.002
Lower confidence limit	1.594	Lower confidence limit	0.305

Upper confidence limit	1.674	Upper confidence limit	0.309
Confidence interval	0.040	Confidence interval	0.002

For Masson Pine:

Uncertainty of BCEF - Masson Pine	11.62%		
Uncertainty of BEF Masson Pine	6.37%	Uncertainty of D - Masson Pine	9.72%
BEF		D	
Sample size	103	Sample size	43
Sample mean (BEF)	1.472	Sample mean (D)	0.380
Standard deviation	0.48	Standard deviation	0.12
Average error	0.047	Average error	0.018
Confidence level	0.95	Confidence level	0.95
Degree of freedom	102	Degree of freedom	42
Two-sided Student's t-value	1.98	Two-sided Student's t-value	2.02
Allowable error	0.094	Allowable error	0.037
Lower confidence limit	1.378	Lower confidence limit	0.343
Upper confidence limit	1.566	Upper confidence limit	0.417
Confidence interval	0.094	Confidence interval	0.037

For Broad-leaf tree:

Uncertainty of BCEF- Broad-leaf tree	6.33%		
Uncertainty of BEF- Broad-leaf tree	3.87 %	Uncertainty of D- Broad-leaf tree	5.01 %
BEF			
Sample size	84	Sample size	82
Sample mean (BEF)	1.514	Sample mean (D)	0.482
Standard deviation	0.27	Standard deviation	0.11
Average error	0.029	Average error	0.012
Confidence level	0.95	Confidence level	0.95
Degree of freedom	83	Degree of freedom	81
Two-sided Student's t-value	1.99	Two-sided Student's t-value	1.99
Allowable error	0.059	Allowable error	0.024
Lower confidence limit	1.455	Lower confidence limit	0.458
Upper confidence limit	1.573	Upper confidence limit	0.506
Confidence interval	0.059	Confidence interval	0.24

3) Uncertainty of carbon stock:

The calculation of uncertainty of carbon stock is based on the uncertainty of volume in every stratum multiply by the uncertainty of expansion factors using formula (33):

Uncertainty of carbon stock-Chinese Fir	8.53%	Uncertainty of carbon stock-Masson Pine	12.23%	Uncertainty of carbon stock-Broad-leaf tree	7.80%
Uncertainty of	8.12%	Uncertainty of	3.82%	Uncertainty of	4.55%

volume-Chinese Fir		volume – Masson Pine		volume –Broad-leaf tree	
carbon stock-Chinese Fir	106195.99	carbon stock-Masson Pine	867878.36	carbon stock-Broad-leaf tree	2500908.59
Area(ha)	186.1	Area(ha)	2037.2	Area(ha)	3632.7
Sample size	120	Sample size	555	Sample size	670
Sample mean (m^3/ha)	682.39	Sample mean (m^3/ha)	437.17	Sample mean (m^3/ha)	500.87
Standard deviation	306.60	Standard deviation	200.25	Standard deviation	300.43
Average error	27.99	Average error	8.50	Average error	11.61
Confidence level	0.95	Confidence level	0.95	Confidence level	0.95
Degree of freedom	119	Degree of freedom	554	Degree of freedom	669
Two-sided Student's t-value	1.98	Two-sided Student's t-value	1.96	Two-sided Student's t- value	1.96
Allowable error	55.42	Allowable error	16.70	Allowable error	22.79
Lower confidence limit	626.97	Lower confidence limit	420.47	Lower confidence limit	478.08
Upper confidence limit	737.81	Upper confidence limit	453.87	Upper confidence limit	523.66
Confidence interval	55.42	Confidence interval	16.70	Confidence interval	22.79

4) Uncertainty of regrowth

The uncertainty of regrowth is only associated with the parameter RGR_i, as for the value quoted from the expertise of the local forest authority, the uncertainty of 10% is adopted from the National Forest Resource Continuous Investigation Technical Regulation issued by the State Forestry Bureau. And this uncertainty is adopted for the project for conservative.

Based on the calculation of the 4 parameters and coefficients above, the calculation of $U_{Chinese\ Fir|BSL}$, $U_{Masson\ Pine|BSL}$, and $U_{Broad\text{-}Leaved\ Tree\ |BSL}$ are shown below:

Uncertainty for the Baseline Scenario

The baseline emission uncertainty has been listed in the PD is 2.25%, the detailed calculation is listed as follows:

Stratum	Parameter	A_{rea} (Ha)	$V_{EX,j,i\|BSL}$ (m^3/ha)	BEF	D(t dm/m^3)	$BCEF_R$ (t dm/m^3)	CFj (t C/tdm)	$C_{HB,j,i\|BSL}$ (t C /ha)	$C_{EX,j,i\|BSL}$ (t C ha^{-1})	$\Delta C_{DW,i,p\|BSL}$
		a	b	c	d	e=c*d	f	g=b*e*f	h=b*d*f	i=g-h
								$U_g=\sqrt{U_b^2+U_e^2}$	$U_h=\sqrt{U_b^2+U_d^2}$	$U_1=\frac{\sqrt{(E_g\times U_g)^2+(E_h\times U_h)^2}}{(E_g+E_h)}$
Chinese Fir	E	186.13	195.49	1.634	0.307	0.502	0.5	49.03	30.01	19.02
	U	0.00%	8.12%	2.48%	0.80%	2.60%		8.53%	8.16%	6.13%
Masson Pine	E	2037.21	175.59	1.472	0.380	0.559	0.5	49.11	33.36	15.75
	U	0.00%	3.82%	6.37%	9.72%	11.62%		12.23%	10.44%	8.42%
Broad-leaf tree	E	3632.65	198.74	1.514	0.482	0.730	0.5	72.51	47.90	24.62
	U	0.00%	4.55%	3.87%	5.01%	6.33%		7.80%	6.77%	5.41%

Stratum	Parameter	WW_k	SLF_k	$C_{wp,0\|BSL}$ (t C/ha)	$C_{WP,i\|BSL}$(t C/ha)	OF_k	$\Delta C_{WP,100\|BSL}$ (t C/ha)	$A_{i,p}$(ha)	$\Delta C_{NET\|BSL(1)}$(t C)
		j	k	l=h*(j+k)	m=h-l	n	o=m*n	p	q=(i/10+l+o/20)*p
				$U_l=U_h$	$U_m=\frac{\sqrt{(E_h\times U_h)^2+(E_1\times U_1)^2}}{(E_h+E_1)}$		$U_o=U_m$	$U_p=0$	$U_m=\frac{\sqrt{(E_i\times U_i)^2+(E_1\times U_1)^2+(E_o\times U_o)^2}}{(E_h+E_1+E_o)}$
Chinese Fir	E	24%	0.12	10.80	19.20	0.62	11.91	186.13	2475.68
	U			8.16%	6.38%		6.38%		3.95%
Masson Pine	E	24%	0.12	12.01	21.35	0.62	13.24	2037.21	29024.85
	U			10.44%	8.16%		8.16%		5.17%
Broad-leaf tree	E	24%	0.12	17.24	30.65	0.62	19.00	3632.65	75029.97
	U			6.77%	5.29%		5.29%		3.35%

Stratum	Parameter	$\Delta C_{NET\|BSL(2-10)}$(t C)	$\Delta C_{NET\|BSL(11-20)}$(t C)	regrowth rate (m^3/ha/yr)	$\Delta C_{NET\|BSL,t^*}$(t C)	$\Delta C_{NET, i,P\|BSL}$
		r=(i/10+o/20)*p	s=o/20*p	t	v=e*f*p*t	w=q+r+s-v
		$U_m = \frac{\sqrt{(E_i \times U_i)^2 + (E_o \times U_o)^2}}{(E_i + E_o)}$	$U_s=U_o$	U_t=10%	$U_v = \sqrt{U_e^2 + U_t^2}$	$U_m = \frac{\sqrt{(E_q \times U_q)^2 + (E_r \times U_r)^2 + (E_s \times U_s)^2 + (E_t \times U_t)^2}}{(E_q + E_r + E_s + E_t)}$
Chinese Fir	E	4184.37	1140.53	1.50	1421.04	6379.55
	U	0.04	0.06	0.10	0.10	0.03
Masson Pine	E	41008.88	1348.48	1.50	14489.32	56892.89
	U	0.06	0.08	0.10	0.15	0.04
Broad-leaf tree	E	111553.23	36907.87	1.50	41139.78	182351.29
	U	0.04	0.05	0.10	0.12	0.03
					U_{BSL}	2.25%

Uncertainty for the project scenario

Based on the calculation of the parameters and coefficients above, the calculation of U_{PRJ} is shown below:

Stratum	Parameter	A_{rea} (Ha)	BEF	D (tdm/m^3)	$BCEF_R$ (tdm/m^3)	CFj (t C/tdm)	ongoing growth rate (m^3/ha/yr)	$\Delta C_{AB,t\|PRJ}$(tCO_2)
		a	b	c	d=b*c	e	f	g=f*a*d*e*44/12
							U_f=10%	$U_g = \sqrt{U_d^2 + U_f^2}$
Chinese Fir	E	186.13	1.634	0.307	0.502	0.5	14.15	3379.22
	U	0	2.48%	0.80%	2.60%		10.00%	10.33%
Masson Pine	E	2037.21	1.472	0.380	0.559	0.5	8.00	16146.28
	U	0	6.37%	9.72%	11.62%		10.00%	15.33%
Broad-leaf tree	E	3632.65	1.514	48.20%	0.730	0.5	10.52	54096.27
	U	0	3.87%	5.01%	6.33%		10.00%	11.84%
							U_{PRJ}	9.34%

Total uncertainty

Total uncertainty for LtPF project is calculated according to the follow equation:

$$U_{Total|LtPF} = \sqrt{U_{|PRJ}^2 + U_{|BSL}^2} = \sqrt{2.25\%^2 + 9.34\%^2} = 9.60\% = 0.0960$$

As U_{total}<0.15, then no deduction will result from uncertainty.

Calculation of verified carbon units

The amount of greenhouse gas credits estimated at Step 5.4.1 above should be adjusted to account for risk. Based on the VCS Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination version 4.0, the amount of VCUs that can be issued at time t=t_2 (the date of verification) for monitoring period T=t_2-t_1, is calculated as the equation (31) in VCS-PD:

$$\mathrm{VCU}_{\mathrm{net|LtPF}} = (Credits_{total,t_2|LtPF} - Credits_{total,t_1|LtPF}) - Bu_{IFM-VCS} \quad (20)$$

Based on the analysis in section 2.1, the overall risk rating of 22 is converted to a percentage as 22%. This percentage is multiplied by the net change in the project's carbon stock. Therefore, the amount of verified carbon units of this crediting period is:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for issuance
01/01/2017-31/12/2017	19,283	-73,611	3,857	89,038	19,588	69,450
01/01/2018-31/12/2018	21,331	-73,611	4,266	90,676	19,949	70,727
01/01/2019-31/12/2019	25,067	-73,611	5,013	93,664	20,606	73,058
01/01/2020-31/12/2020	27,285	-73,611	5,457	95,439	20,997	74,442
01/01/2021-30/11/2021	27,793	-67,477	5,559	89,711	19,736	69,975
Total	**120,759**	**-361,921**	**24,152**	**458,528**	**100,876**	**357,652**
Average	**24,561**	**-73,611**	**4,912**	**93,260**	**20,517**	**72,743**

APPENDIX

APPENDIX 1: < GEOGRAPHICAL COORDINATES OF PROJECT >

GEOGRAPHICAL COORDINATES OF PROJECT

Town	compartment	Subcompartment		East to	South to	West to	North to
Longjin	042	13	030	116°50′0.518″E 26°9′8.323″N	116°49′49.268″E 26°9′1.759″N	116°49′48.58″E 26°9′2.562″N	116°49′55.2″E 26°9′10.208″N
Longjin	030	06	140	116°51′55.289″E 26°11′58.501″N	116°51′30.907″E 26°11′46.183″N	116°51′6.735″E 26°11′57.507″N	116°51′48.03″E 26°12′12.336″N
Longjin	030	08	030				
Longjin	030	08	060				
Longjin	030	08	100				
Longjin	030	09	070	116°51′28.252″E 26°11′15.059″N	116°51′24.209″E 26°11′12.57″N	116°51′7.221″E 26°11′18.485″N	116°51′21.041″E 26°11′31.679″N
Longjin	045	03	010	116°48′30.323″E 26°7′54.874″N	116°47′42.13″E 26°7′32.434″N	116°47′39.211″E 26°7′40.781″N	116°48′17.885″E 26°8′5.492″N
Longjin	045	04	010				
Longjin	045	05	020				
Longjin	045	06	040				
Longjin	045	07	020				
Longjin	045	08	040				
Longjin	045	11	020	116°48′39.747″E 26°7′21.814″N	116°48′29.364″E 26°7′11.725″N	116°48′1.554″E 26°7′334.693″N	116°48′10.35″E 26°737.319″N
Longjin	045	13	010				
Longjin	045	15	010				
Longjin	045	21	050	116°49′44.276″E 26°6′39.764″N	116°49′4.302″E 26°6′25.994″N	116°48′49.201″E 26°6′37.065″N	116°49′34.728″E 26°6′44.189″N
Longjin	045	22	020				
Longjin	045	23	020				
Longjin	045	23	030				
Longjin	047	01	010	116°48′29.364″E 26°7′11.725″N	116°47′57.952″E 26°7′9.34″N	116°47′42.907″E 26°7′18.759″N	116°47′51.863″E 26°7′27.747″N
Longjin	047	01	020				
Longjin	047	02	010				
Longjin	047	05	010	116°48′19.579″E	116°47′26.536″E	116°47′24.053″E	116°47′35.22″E

Longjin	047	06	010	26°6′52.502″N	26°6′30.556″N	26°6′45.563″N	26°7′3.324″N
Longjin	047	06	020				
Longjin	047	07	010				
Longjin	047	08	010				
Longjin	047	10	010	116°48′33.865″E 26°6′42.78″N	116°47′43.841″E 26°5′42.805″N	116°47′25.787″E 26°6′26.316″N	116°47′26.771″E 26°6′29.825″N
Longjin	047	11	010				
Longjin	047	11	030				
Longjin	047	12	020				
Longjin	047	13	020				
Longjin	048	02	010	116°49′35.03″E 26°5′44.67″N	116°48′39.37″E 26°5′19.014″N	116°48′10.412″E 26°5′38.99″N	116°49′11.708″E 26°5′53.376″N
Longjin	048	03	010				
Longjin	048	09	020				
Longjin	048	09	060				
Longjin	048	10	020				
Longjin	048	11	020				
Longjin	048	12	030				
Longjin	048	12	040				
Longjin	048	13	020				
Longjin	048	17	010				
Longjin	048	18	010				
Longjin	048	18	020				
Longjin	048	19	010				
Longjin	048	19	020				
Longjin	043	03	030	116°50′0.149″E 26°8′34.794″N	116°49′53.755″E 26°8′30.196″N	116°49′35.849″E 26°8′42.297″N	116°49′46.706″E 26°8′43.083″N
Longjin	043	04	040				
Longjin	043	05	020	116°50′9.612″E 26°9′4.086″N	116°50′7.823″E 26°9′2.743″N	116°49′58.374″E 26°9′2.251″N	116°50′4.615″E 26°9′7.863″N
Longjin	026	05	030	116°50′55.566″E 26°13′28.801″N	116°50′48.035″E 26°13′14.762″N	116°50′34.902″E 26°13′28.366″N	116°50′42.059″E 26°13′36.489″N
Longjin	015	02	050	116°49′21.203″E 26°15′24.463″N	116°49′11.315″E 26°15′18.647″N	116°48′49.618″E 26°15′28.756″N	116°49′16.635″E 26°15′56.078″N
Longjin	015	03	010				
Longjin	015	04	020				

Longjin	015	04	040				
Longjin	015	06	020				
Longjin	015	06	040				
Longjin	015	07	010				
Longjin	016	05	080	116°50′16.881″E 26°15′44.99″N	116°50′11.4″E 26°15′36.679″N	116°50′9.054″E 26°15′37.27″N	116°50′10.532″E 26°15′43.848″N
Longjin	016	06	050				
Longjin	018	06	020	116°51′23.819″E 26°14′26.157″N	116°50′55.525″E 26°14′10.868″N	116°50′54.948″E 26°14′14.478″N	116°51′20.859″E 26°14′30.238″N
Longjin	001	07	020	116°48′51.078″E 26°18′22.117″N	116°48′46.867″E 26°18′19.017″N	116°48′46.636″E 26°18′20.648″N	116°48′50.83″E 26°18′22.547″N
Longjin	002	01	100	116°50′34.062″E 26°18′34.975″N	116°50′17.196″E 26°18′21.975″N	116°49′45.01″E 26°18′54.45″N	116°49′45.199″E 26°18′51.512″N
Longjin	002	02	030				
Longjin	004	04	050	116°51′38.111″E 26°18′7.371″N	116°51′33.769″E 26°18′1.357″N	116°51′33.769″E 26°18′1.357″N	116°51′38.111″E 26°18′7.371″N
Longjin	005	01	020	116°48′46.844″E 26°17′33.063″N	116°48′29.12″E 26°17′23.582″N	116°48′31.078″E 26°17′50.666″N	116°48′43.26″E 26°18′6.845″N
Longjin	005	02	050				
Longjin	007	08	050	116°49′56.456″E 26°17′3.93″N	116°49′55.647″E 26°17′2.618″N	116°49′52.425″E 26°17′5.15″N	116°49′54.449″E 26°17′6.399″N
Longjin	008	07	040	116°51′38.32″E 26°16′43.134″N	116°51′18.535″E 26°16′32.935″N	116°51′17.464″E 26°16′35.376″N	116°51′29.733″E 26°16′46.633″N
Longjin	010	01	010	116°48′52.363″E 26°17′1.017″N	116°48′11.118″E 26°16′23.54″N	116°48′7.43″E 26°16′23.54″N	116°48′26.805″E 26°17′11.28″N
Longjin	010	01	020				
Longjin	010	02	010				
Longjin	010	04	010				
Longjin	010	04	020				
Longjin	010	05	010				
Longjin	010	07	010				
Longjin	010	07	020				
Longjin	010	07	030				
Longjin	010	07	040				
Longjin	011	05	050	116°50′7.399″E 26°16′11.876″N	116°49′38″E 26°16′3.795″N	116°49′32.031″E 26°16′16.219″N	116°49′34.77″E 26°16′21.484″N
Longjin	011	06	030				
Longjin	011	06	080				
Longjin	023	01	020	116°48′7.832″E	116°47′42.055″E	116°47′34.153″E	116°47′47.686″E

Longjin	023	01	040	26°13′43.097″N	26°13′33.621″N	26°13′38.768″N	26°13′51.477″N
Longjin	023	01	060				
Longjin	013	02	050	116°48′0.774″E 26°16′0.655″N	116°47′29.627″E 26°15′41.525″N	116°47′28.057″E 26°15′55.657″N	116°47′43.252″E 26°16′8.781″N
Longjin	013	03	010				
Longjin	013	05	020				
Songxi	042	11	060	116°54′33.538″E 26°12′47.04″N	116°54′26.63″E 26°12′40.845″N	116°54′14.805″E 26°12′49.005″N	116°54′23.808″E 26°12′54.384″N
Songxi	042	12	040				
Songxi	045	01	010	116°57′42.503″E 26°15′14.803″N	116°57′30.407″E 26°14′37.401″N	116°57′27.492″E 26°14′57.561″N	116°57′42.025″E 26°15′17.21″N
Songxi	045	01	020				
Songxi	045	01	030				
Songxi	045	03	010				
Songxi	049	04	040	116°58′15.356″E 26°12′54.23″N	116°57′14.671″E 26°12′30.555″N	116°57′4.906″E 26°12′43.688″N	116°58′9.941″E 26°13′0.419″N
Songxi	049	07	040				
Songxi	049	09	100				
Songxi	052	09	030	116°58′7.086″E 26°11′44.215″N	116°58′6.781″E 26°11′43.716″N	116°57′58.584″E 26°11′50.781″N	116°58′1.861″E 26°11′54.547″N
Songxi	052	09	080				
Songxi	052	09	090				
Songxi	015	01	040	116°52′12.328″E 26°14′14.987″N	116°51′45.482″E 26°14′7.56″N	116°51′3.409″E 26°15′3.778″N	116°51′33.957″E 26°15′34.862″N
Songxi	015	03	010				
Songxi	015	04	020				
Songxi	015	08	010				
Songxi	015	10	020				
Songxi	015	11	010				
Songxi	012	11	040	116°52′40.479″E 26°17′7.128″N	116°52′21.312″E 26°17′4.867″N	116°52′21.312″E 26°17′4.867″N	116°52′29.421″E 26°17′11.481″N
Songxi	007	06	080	116°52′29.161″E 26°18′1.352″N	116°52′8.137″E 26°17′54.025″N	116°52′2.652″E 26°17′55.138″N	116°52′16.269″E 26°18′14.967″N
Songxi	007	07	020				
Songxi	007	07	160				
Songxi	008	07	020	116°52′54.981″E 26°17′32.728″N	116°52′30.02″E 26°17′17.697″N	116°52′10.631″E 26°17′32.793″N	116°52′28.919″E 26°17′55.505″N
Songxi	008	08	050				
Songxi	008	08	110				

Songxi	008	10	030				
Songxi	008	11	010				
Songxi	008	12	010				
Songxi	004	12	080	116°56′7.046″E 26°19′53.12″N	116°56′1.364″E 26°19′46.996″N	116°56′1.346″E 26°19′46.996″N	116°56′7.046″E 26°19′53.12″N
Songxi	005	09	030		116°54′0.095″E 26°18′50.774″N	116°53′58.001″E 26°18′52.913″N	116°54′5.491″E 26°19′6.123″N
Songxi	020	02	030	116°58′18.666″E 26°19′5.414″N	116°58′12.179″E 26°19′2.868″N	116°57′27.834″E 26°19′18.262″N	116°58′9.042″E 26°19′35.949″N
Songxi	020	04	010				
Songxi	020	06	010				
Songkou	047	01	010	116°50′47.17″E 26°5′45.621″N	116°50′8.507″E 26°4′28.064″N	116°50′1.645″E 26°4′33.49″N	116°50′44.728″E 26°5′48.851″N
Songkou	047	09	010				
Songkou	047	09	030				
Songkou	053	11	020	116°53′0.557″E 26°3′36.506″N	116°52′56.611″E 26°3′34.13″N	116°52′45.327″E 26°3′37.422″N	116°52′43.945″E 26°3′48.15″N
Songkou	053	11	040				
Songkou	021	04	100	116°58′9.477″E 26°10′10.21″N	116°57′58.474″E 26°10′5.092″N	116°57′57.139″E 26°10′8.617″N	116°58′8.189″E 26°10′14.466″N
Songkou	022	05	020	117°0′48.02″E 26°10′56.645″N	117°0′42.227″E 26°11′2.973″N	116°59′48.478″E 26°9′21.039″N	116°59′21.12″E 26°9′55.161″N
Songkou	022	05	060				
Songkou	022	06	030				
Songkou	022	07	010				
Songkou	022	10	030				
Songkou	022	15	070				
Songkou	022	15	110				
Songkou	022	16	010				
Songkou	022	18	030				
Songkou	022	18	050				
Songkou	022	20	040				
Songkou	022	20	050				
Songkou	022	21	010				
Songkou	022	21	020				
Songkou	024	07	010	116°59′24.4″E 26°9′25.707″N	116°58′20.15″E 26°9′9″N	116°58′7.077″E 26°9′11.474″N	116°58′53.297″E 26°9′51.915″N
Songkou	025	01	020				

Songkou	025	04	030				
Songkou	025	06	030				
Songkou	009	05	020	116°54′27.392″E 26°10′7.154″N	116°54′9.161″E 26°10′2.242″N	116°53′51.136″E 26°10′22.347″N	116°53′54.622″E 26°10′24.722″N
Songkou	009	06	150				
Songkou	010	04	010	116°55′30.376″E 26°11′39.494″N	116°54′51.148″E 26°10′54.508″N	116°54′17.681″E 26°11′21.224″N	116°55′6.446″E 26°11′55.472″N
Songkou	010	04	020				
Songkou	010	05	010				
Songkou	010	05	020				
Songkou	011	05	010				
Songkou	011	05	020				
Songkou	011	05	030				
Songkou	011	06	020				
Songkou	011	07	010				
Songkou	011	08	010				
Songkou	011	08	020				
Songkou	011	08	030				
Songkou	011	08	040				
Songkou	011	08	050				
Songkou	011	09	030				
Songkou	011	09	090				
Songkou	013	06	080	116°56′46.625″E 26°10′52.109″N	116°56′46.625″E 26°10′52.109″N	116°56′41.168″E 26°10′54.705″N	116°56′42.596″E 26°10′57.352″N
Songkou	015	02	020	116°55′15.579″E 26°9′38.702″N	116°54′49.985″E 26°9′19.086″N	116°54′37.404″E 26°9′26.987″N	116°55′0.859″E 26°9′52.793″N
Songkou	015	02	040				
Songkou	015	02	050				
Songkou	015	06	010				
Lingdi	005	10	040	116°50′53.527″E 25°53′22.468″N	116°50′53.527″E 25°53′22.468″N	116°50′25.167″E 25°53′33.89″N	116°50′27.163″E 25°53′34.408″N
Lingdi	002	12	020	116°46′39.492″E 25°52′37.358″N	116°46′12.419″E 25°51′52.613″N	116°45′2.107″E 25°53′18.817″N	116°45′19.341″E 25°53′50.313″N
Lingdi	003	02	020				
Lingdi	003	08	010				
Lingdi	003	08	030				

Lingdi	003	10	010				
Lingdi	003	10	020				
Lingdi	003	11	010				
Lingdi	003	11	020				
Lingdi	003	11	030				
Lingdi	003	12	010				
Lingdi	003	12	020				
Lingdi	003	13	010				
Lingdi	003	13	020				
Lingdi	007	12	010				
Lingdi	007	12	030				
Lingdi	007	18	010				
Lingdi	007	18	020				
Lingdi	007	21	010				
Lingdi	008	04	020	116°45′36.244″E 25°51′12.521″N	116°45′29.287″E 25°51′12.521″N	116°44′22.605″E 25°51′34.759″N	116°45′11.852″E 25°51′57.414″N
Lingdi	008	06	010				
Lingdi	008	06	020				
Lingdi	008	07	070				
Lingdi	008	09	010				
Lingdi	008	09	020				
Lingdi	008	10	010				
Lingdi	008	10	020				
Lingdi	008	11	010				
Lingdi	008	11	020				
Changxiao	023	09	010	116°44′27.153″E 25°54′23.968″N	116°44′27.153″E 25°54′23.968″N	116°44′3.8″E 25°54′35.12″N	116°44′3.8″E 25°54′35.12″N
Changxiao	019	01	010	116°40′59.983″E 25°56′24.32″N	116°40′47.092″E 25°56′2.111″N	116°40′40.992″E 25°56′21.297″N	116°40′54.71″E 25°56′33.233″N
Changxiao	019	02	040				
Changxiao	001	01	060	116°45′29.444″E 26°1′55.706″N	116°45′28.793″E 26°1′48.053″N	116°44′49.006″E 26°1′52.37″N	116°44′55.598″E 26°2′24.879″N
Changxiao	001	06	010				
Changxiao	001	06	020				

Changxiao	001	08	020				
Changxiao	001	09	030				
Changxiao	002	02	010	116°47′10.707″E 26°1′22.588″N	116°45′50.201″E 26°0′27.163″N	116°45′26.159″E 26°1′26.962″N	116°45′38.239″E 26°2′46.68″N
Changxiao	002	04	010				
Changxiao	002	04	030				
Changxiao	002	05	050				
Changxiao	002	08	010				
Changxiao	002	08	020				
Changxiao	002	08	030				
Changxiao	002	09	010				
Changxiao	002	09	020				
Changxiao	002	11	040				
Changxiao	002	11	060				
Changxiao	002	11	120				
Changxiao	005	01	020				
Changxiao	005	01	030				
Changxiao	005	02	020				
Changxiao	005	02	040				
Changxiao	005	02	110				
Changxiao	005	03	020				
Changxiao	005	04	010				
Changxiao	005	05	010				
Changxiao	005	05	020				
Changxiao	005	05	040				
Changxiao	005	11	010				
Changxiao	005	11	020				
Changxiao	005	11	030				
Changxiao	027	06	010	116°46′28.279″E 25°59′40.787″N	116°46′8.118″E 25°58′47.966″N	116°45′38.376″E 25°59′19.557″N	116°46′14.38″E 25°59′44.376″N
Changxiao	027	06	020				
Changxiao	027	06	030				
Changxiao	027	09	010				

Changxiao	027	10	010				
Changxiao	027	10	020				
Wenjiao	008	01	010	116°59′35.864″E 26°15′8.385″N	116°59′24.044″E 26°14′45.602″N	116°58′40.565″E 26°15′9.669″N	116°59′30.001″E 26°15′22.227″N
Wenjiao	008	02	010				
Wenjiao	008	03	010				
Wenjiao	008	03	020				
Wenjiao	008	03	030				
Wenjiao	008	04	010				
Wenjiao	008	04	020				
Wenjiao	008	04	030				
Wenjiao	008	09	010				
Wenjiao	009	06	040	116°59′36.119″E 26°14′9.461″N	116°59′31.201″E 26°14′4.955″N	116°59′24.464″E 26°14′6.708″N	116°59′0.395″E 26°14′9.804″N
Wenjiao	010	03	020	117°1′29.095″E 26°13′14.26″N	117°0′51.393″E 26°12′12.569″N	116°28′53.995″E 26°13′5.752″N	116°59′54.884″E 26°14′44.804″N
Wenjiao	010	05	030				
Wenjiao	010	10	060				
Wenjiao	011	05	110				
Wenjiao	011	08	010				
Wenjiao	012	02	040				
Wenjiao	013	01	010				
Wenjiao	013	08	100				
Wenjiao	013	11	110				
Wenjiao	001	12	020	117°1′20.085″E 26°14′52.37″N	117°1′17.319″E 26°14′45.837″N	117°0′40.618″E 26°15′21.605″N	117°0′43.091″E 26°15′25.13″N
Wenjiao	003	10	050				
Wenjiao	006	10	020	117°5′37.323″E 26°13′21.034″N	117°5′36.272″E 26°13′18.456″N	117°4′1.353″E 26°13′49.201″N	117°4′5.934″E 26°13′57.71″N
Wenjiao	006	14	010				
Wenjiao	006	14	050				
Wenjiao	007	07	050				
Wenjiao	007	08	040				
Wenjiao	007	10	010				
Wenjiao	007	10	020				

Wenjiao	023	26	010	117°6′16.007″E 26°12′16.6″N	117°4′40.561″E 26°11′6.937″N	117°4′28.764″E 26°11′36.862″N	117°6′15.246″E 26°12′18.75″N
Wenjiao	023	27	010				
Wenjiao	023	28	010				
Wenjiao	023	28	020				
Wenjiao	023	30	020				
Wenjiao	023	30	030				
Wenjiao	024	01	010				
Wenjiao	024	01	020				
Wenjiao	024	02	010				
Wenjiao	024	03	010				
Wenjiao	024	03	020				
Wenjiao	024	03	040				
Wenjiao	024	04	020				
Wenjiao	024	06	010				
Wenjiao	024	06	020				
Wenjiao	024	07	010				
Wenjiao	024	07	020				
Wenjiao	024	10	010				
Wenjiao	028	14	020	117°3′40.672″E 26°13′44.861″N	117°2′15.28″E 26°13′27.395″N	117°2′14.994″E 26°13′28.556″N	117°3′10.184″E 26°14′19.907″N
Wenjiao	028	14	040				
Wenjiao	028	19	010				
Wenjiao	028	19	050				
Wenjiao	028	20	010				
Wenjiao	029	08	050	117°1′58.567″E 26°12′42.582″N	117°1′58.567″E 26°12′42.582″N	117°1′27.844″E 26°13′8.724″N	117°1′31.66″E 26°13′20.14″N
Wenjiao	029	08	070				
Wenjiao	031	04	010	117°4′57.169″E 26°13′9.062″N	117°3′55.557″E 26°12′42.442″N	117°3′28.164″E 26°13′0.615″N	117°3′52.789″E 26°13′18.616″N
Wenjiao	031	04	040				
Wenjiao	031	05	020				
Wenjiao	031	06	010				
Wenjiao	031	06	030				
Wenjiao	031	07	030				

Wenjiao	031	08	020				
Wenjiao	031	10	010				
Wenjiao	031	10	040				
Wenjiao	032	10	060	117°2′15.325″E 26°11′31.182″N	117°2′6.783″E 26°11′19.698″N	117°1′43.152″E 26°11′25.91″N	117°2′7.017″E 26°11′35.242″N
Wenjiao	032	13	020				
Wenjiao	034	03	060	117°3′44.403″E 26°10′55.863″N	117°3′44.008″E 26°11′4.041″N	117°2′53.694″E 26°10′5.855″N	117°2′41.386″E 26°10′9.814″N
Wenjiao	034	07	070				
Wenjiao	034	29	020				
Wenjiao	014	01	010	117°8′24.304″E 26°14′37.69″N	117°7′53.625″E 26°14′55.085″N	117°7′13.09″E 26°13′6.968″N	117°5′32.962″E 26°13′38.293″N
Wenjiao	014	01	020				
Wenjiao	014	01	030				
Wenjiao	014	02	010				
Wenjiao	014	02	020				
Wenjiao	014	03	010				
Wenjiao	014	03	020				
Wenjiao	014	04	020				
Wenjiao	014	04	030				
Wenjiao	014	04	040				
Wenjiao	014	05	020				
Wenjiao	014	07	020				
Wenjiao	014	08	010				
Wenjiao	014	08	020				
Wenjiao	014	11	010				
Wenjiao	014	12	010				
Wenjiao	014	13	010				
Wenjiao	014	15	010				
Wenjiao	014	16	010				
Wenjiao	015	01	010				
Wenjiao	015	02	010				
Wenjiao	015	02	020				
Wenjiao	015	03	020				

Wenjiao	015	04	010				
Wenjiao	015	04	020				
Wenjiao	015	05	010				
Wenjiao	015	05	020				
Wenjiao	015	06	020				
Wenjiao	015	06	040				
Wenjiao	015	07	060				
Wenjiao	015	09	020				
Wenjiao	015	09	040				
Wenjiao	015	11	010				
Wenjiao	015	11	020				
Wenjiao	015	14	010				
Wenjiao	015	14	020				
Wenjiao	016	01	020				
Wenjiao	016	01	040				
Wenjiao	016	06	010				
Wenjiao	016	06	020				
Wenjiao	016	11	010				
Wenjiao	016	12	010				
Wenjiao	016	13	010				
Wenjiao	016	13	020				
Wenjiao	016	20	040	117°6′20.891″E 26°12′25.849″N	117°5′49.818″E 26°12′20.971″N	117°5′33.399″E 26°12′42.2″N	117°5′50.627″E 26°13′0.088″N
Wenjiao	016	21	010				
Wenjiao	016	21	020				
Wenjiao	016	24	010				
Wenjiao	016	24	020				
Wenjiao	016	25	010				
Wenjiao	016	25	020				
Wenjiao	018	05	040	117°9′55.048″E 26°13′16.031″N	117°9′5.084″E 26°13′2.021″N	117°9′3.296″E 26°13′5.462″N	117°9′19.711″E 26°13′21.125″N
Wenjiao	018	10	050				
Wenjiao	018	11	030				

Wenjiao	018	11	050				
Wenjiao	018	16	040				
Wenjiao	025	01	010	117°7′52.07″E 26°11′23.721″N	117°7′14.297″E 26°10′38.459″N	117°6′21.166″E 26°11′2.088″N	117°7′38.064″E 26°12′9.084″N
Wenjiao	025	01	020				
Wenjiao	025	02	010				
Wenjiao	025	03	010				
Wenjiao	025	04	040				
Wenjiao	025	05	030				
Wenjiao	025	06	010				
Wenjiao	025	06	020				
Wenjiao	025	08	030				
Wenjiao	025	09	020				
Wenjiao	025	09	030				
Wenjiao	025	10	040				
Wenjiao	027	01	010	117°9′40.981″E 26°10′26.224″N	117°9′14.747″E 26°10′1.643″N	117°7′23.486″E 26°10′41.835″N	117°8′30.976″E 26°10′47.361″N
Wenjiao	027	04	010				
Wenjiao	027	05	030				
Wenjiao	027	06	010				
Wenjiao	027	06	020				
Wenjiao	027	07	010				
Wenjiao	027	07	020				
Wenjiao	027	09	030				
Wenjiao	027	09	040				
Wenjiao	027	10	010				
Wenjiao	027	10	040				
Wenjiao	027	11	010				
Linshe	008	03	010	117°5′47.315″E 26°20′33.445″N	117°5′24.176″E 26°20′20.977″N	117°5′13.307″E 26°20′30.991″N	117°5′20.301″E 26°20′43.573″N
Linshe	008	03	020				
Linshe	008	03	030				
Linshe	004	02	080	117°1′49.088″E 26°20′41.452″N	117°1′42.646″E 26°20′36.811″N	117°1′41.587″E 26°20′37.611″N	117°1′48.888″E 26°20′43.825″N

Linshe	005	05	060	117°2′30.441″E 26°18′56.763″N	117°2′24.742″E 26°18′47.299″N	117°2′24.144″E 26°18′54.934″N	117°2′25.233″E 26°18′58.648″N
Linshe	005	05	080				
Linshe	006	04	140	117°2′6.105″E 26°18′39.343″N	117°1′27.559″E 26°17′59.323″N	117°1′9.1″E 26°18′44.581″N	117°1′55.959″E 26°18′53.239″N
Linshe	006	06	040				
Linshe	006	07	020				
Linshe	006	07	060				
Linshe	006	08	010				
Linshe	006	08	040				
Linshe	006	08	060				
Linshe	006	09	030				
Linshe	014	05	010	117°1′13.571″E 26°17′29.854″N	117°0′21.303″E 26°16′43.176″N	117°0′18.824″E 26°16′44.38″N	117°0′58.027″E 26°17′44.815″N
Linshe	014	05	020				
Linshe	015	03	030				
Linshe	015	03	040				
Linshe	017	02	080	117°5′29.636″E 26°16′48.535″N	117°5′29.636″E 26°16′48.535″N	117°4′35.635″E 26°16′59.378″N	117°4′51.388″E 26°17′23.958″N
Linshe	017	03	100				
Linshe	017	04	070				
Linshe	017	10	100				
Linshe	022	02	080	117°4′20.843″E 26°15′53.358″N	117°4′15.788″E 26°15′51.125″N	117°4′11.366″E 26°16′10.815″N	117°4′14.563″E 26°16′15.198″N
Linshe	022	05	010				
Linshe	022	05	040				
Linshe	023	02	170	117°6′23.47″E 26°15′42.908″N	117°6′11.779″E 26°15′30.751″N	117°6′7.73″E 26°15′34.107″N	117°6′16.613″E 26°15′51.338″N
Linshe	023	02	190				
Linshe	023	03	100				
Linshe	024	09	010	117°6′35.014″E 26°14′58.881″N	117°5′32.633″E 26°13′39.971″N	117°4′47.921″E 26°14′40.839″N	117°6′0.201″E 26°15′27.123″N
Linshe	024	09	040				
Linshe	024	10	040				
Linshe	024	11	020				
Linshe	024	16	010				
Linshe	024	16	020				
Linshe	024	16	030				

Linshe	025	01	010				
Linshe	025	01	020				
Linshe	025	01	030				
Linshe	025	02	010				
Linshe	025	02	040				
Linshe	025	03	020				
Linshe	025	03	030				
Linshe	025	04	010				
Linshe	025	04	020				
Linshe	025	05	010				
Linshe	025	05	030				
Linshe	025	06	010				
Linshe	025	06	040				
Linshe	025	07	010				
Linshe	025	07	020				
Linshe	025	08	010				
Linshe	025	09	020				
Linshe	025	09	030				
Linshe	025	11	030				
Linshe	025	12	010				
Linshe	025	12	020				
Linshe	025	12	060				
Linshe	025	13	010				
Linshe	025	13	030				
Linshe	002	02	040	117°2′23.923″E 26°20′48.504″N	117°2′21.213″E 26°20′46.613″N	117°2′12.438″E 26°20′58.583″N	117°2′14.654″E 26°20′58.857″N
Linshe	003	07	040	117°3′39.462″E 26°19′52.645″N	117°3′31.729″E 26°19′42.89″N	117°3′14.761″E 26°20′13.288″N	117°3′16.241″E 26°20′14.233″N
Linshe	003	07	080				
Linshe	003	08	040				
Linshe	003	08	060				
Linshe	003	08	130				

Tianyuan	008	01	030	116°49′49.565″E 26°5′42.345″N	116°48′36.088″E 26°4′37.712″N	116°48′19.898″E 26°5′4.446″N	116°49′42.924″E 26°5′52.602″N
Tianyuan	008	01	040				
Tianyuan	008	01	050				
Tianyuan	008	02	050				
Tianyuan	008	05	010				
Tianyuan	008	05	020				
Tianyuan	008	08	010				
Tianyuan	008	08	020				
Tianyuan	008	08	030				
Tianyuan	008	09	010				
Tianyuan	008	09	020				
Tianyuan	008	09	030				
Tianyuan	009	01	020				
Tianyuan	009	01	030				
Tianyuan	012	05	050	116°51′0.816″E 26°2′36.905″N	116°50′45.896″E 26°2′34.895″N	116°50′33.006″E 26°2′51.594″N	116°50′44.345″E 26°2′56.696″N
Tianyuan	013	04	040				
Tianyuan	001	08	080	116°47′52.959″E 26°4′1.557″N	116°47′40.81″E 26°3′40.906″N	116°47′1.314″E 26°4′8.154″N	116°47′21.338″E 26°4′10.797″N
Tianyuan	001	13	040				
Tianyuan	001	14	040				
Tianyuan	003	02	010	116°48′6.497″E 26°2′24.208″N	116°46′50.825″E 26°1′58.032″N	116°45′25.901″E 26°2′59.078″N	116°46′26.749″E 26°3′41.871″N
Tianyuan	003	09	010				
Tianyuan	003	09	040				
Tianyuan	003	09	050				
Tianyuan	003	09	060				
Tianyuan	003	09	090				
Tianyuan	003	09	110				
Tianyuan	003	11	010				
Tianyuan	003	13	020				
Tianyuan	003	14	010				
Tianyuan	003	14	030				
Tianyuan	003	15	010				

Tianyuan	003	15	040				
Tianyuan	004	05	020				
Tianyuan	004	06	020				
Tianyuan	004	07	020				
Tianyuan	004	07	050				
Tianyuan	004	08	010				
Tianyuan	004	08	030				
Tianyuan	004	10	020				
Tianyuan	004	10	030				
Tianyuan	004	10	040				
Tianyuan	004	11	010				
Tianyuan	004	11	020				
Tianyuan	004	13	040				
Tianyuan	004	13	060				
Tianyuan	004	13	070				
Tianyuan	004	15	040				
Tianyuan	004	15	050				
Tianyuan	004	15	070				
Tianyuan	005	14	010	116°49′57.414″E 26°2′22.196″N	116°49′1.805″E 26°2′16.971″N	116°48′51.739″E 26°2′27.275″N	116°49′28.183″E 26°2′56.878″N
Tianyuan	005	15	010				
Tianyuan	005	15	020				
Tianyuan	005	15	030				
Tianyuan	005	15	040				
Tianyuan	005	16	010				
Tianyuan	005	16	020				
Tianyuan	005	16	030				
Tianyuan	005	17	010				
Tianyuan	005	18	010				
Tianyuan	005	18	020				
Shaqiang	023	08	020	116°55′6.617″E 26°0′22.906″N	116°54′52.525″E 26°0′10.466″N	116°54′39.161″E 26°0′18.814″N	116°55′4.556″E 26°0′31.261″N
Shaqiang	023	08	030				

Shaqiang	027	13	010	116°59′12.909″E 25°59′47.39″N	116°59′6.014″E 25°59′28.475″N	116°58′44.466″E 25°59′33.502″N	116°58′57.116″E 25°59′49.839″N
Yupeng	030	04	020	117°2′28.354″E 26°6′19.948″N	117°2′28.087″E 26°6′19.673″N	117°2′14.604″E 26°6′21.775″N	117°2′15.329″E 26°6′25.076″N
Yupeng	030	11	010	117°1′53.276″E 26°5′19.251″N	117°1′48.361″E 26°5′8.368″N	117°1′15.688″E 26°5′19.568″N	117°1′26.258″E 26°5′31.173″N
Yupeng	030	12	010				
Yupeng	032	01	010	117°0′10.601″E 26°7′23.171″N	116°59′52.697″E 26°7′15.296″N	116°59′42.335″E 26°7′24.478″N	116°59′59.973″E 26°7′31.975″N
Yupeng	032	03	010				
Yupeng	033	15	030	117°0′59.483″E 26°6′22.68″N	117°0′55.602″E 26°6′21.025″N	117°0′51.056″E 26°6′28.226″N	117°0′53.367″E 26°6′36.866″N
Yupeng	038	03	010	116°58′3.144″E 26°4′1.619″N	116°57′57.91″E 26°3′56.739″N	116°57′54.434″E 26°4′0.156″N	116°58′2.81″E 26°4′5.123″N
Yupeng	015	01	020	117°5′34.243″E 26°10′53.251″N	117°4′51.621″E 26°10′38.283″N	117°4′33.801″E 26°11′3.053″N	117°5′9.863″E 26°11′10.942″N
Yupeng	015	01	030				
Yupeng	015	02	010				
Yupeng	015	03	010				
Yupeng	015	03	020				
Yupeng	015	04	020				
Yupeng	016	01	010	117°1′39.135″E 26°9′39.567″N	117°1′22.176″E 26°9′32.692″N	117°0′20.063″E 26°9′50.013″N	117°0′34.47″E 26°10′19.879″N
Yupeng	016	01	020				
Yupeng	016	01	030				
Yupeng	016	01	040				
Yupeng	016	02	010				
Yupeng	016	02	020				
Yupeng	016	02	030				
Yupeng	016	03	010				
Yupeng	016	03	020				
Yupeng	016	03	040				
Yupeng	016	04	010				
Yupeng	016	04	020				
Yupeng	016	08	020				
Yupeng	016	08	040				
Yupeng	017	01	030	117°2′18.072″E	117°1′57.869″E	117°1′43.009″E	117°2′7.263″E

<table>
<tr><td>Yupeng</td><td>017</td><td>01</td><td>040</td><td rowspan="5">26°9′55.603″N</td><td rowspan="5">26°9′34.33″N</td><td rowspan="5">26°9′40.996″N</td><td rowspan="5">26°10′8.932″N</td></tr>
<tr><td>Yupeng</td><td>017</td><td>02</td><td>030</td></tr>
<tr><td>Yupeng</td><td>017</td><td>02</td><td>050</td></tr>
<tr><td>Yupeng</td><td>017</td><td>03</td><td>010</td></tr>
<tr><td>Yupeng</td><td>017</td><td>03</td><td>020</td></tr>
<tr><td>Yupeng</td><td>018</td><td>01</td><td>010</td><td rowspan="3">117°5′10.96″E
26°10′36.876″N</td><td rowspan="3">117°4′58.772″E
26°10′21.408″N</td><td rowspan="3">117°4′45.405″E
26°10′36.685″N</td><td rowspan="3">117°5′9.935″E
26°10′42.396″N</td></tr>
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<tr><td>Yupeng</td><td>018</td><td>01</td><td>040</td></tr>
<tr><td>Yupeng</td><td>018</td><td>06</td><td>010</td><td rowspan="2">117°5′15.672″E
26°9′52.975″N</td><td rowspan="2">117°5′5.368″E
26°9′33.019″N</td><td rowspan="2">117°4′47.551″E
26°9′57.48″N</td><td rowspan="2">117°4′47.551″E
26°9′57.48″N</td></tr>
<tr><td>Yupeng</td><td>018</td><td>06</td><td>030</td></tr>
<tr><td>Yupeng</td><td>019</td><td>08</td><td>030</td><td rowspan="5">116°59′39.34″E
26°8′44.363″N</td><td rowspan="5">116°59′21.166″E
26°8′39.204″N</td><td rowspan="5">116°59′11.963″E
26°8′48.592″N</td><td rowspan="5">116°59′18.992″E
26°9′5.357″N</td></tr>
<tr><td>Yupeng</td><td>019</td><td>13</td><td>020</td></tr>
<tr><td>Yupeng</td><td>019</td><td>13</td><td>040</td></tr>
<tr><td>Yupeng</td><td>019</td><td>17</td><td>040</td></tr>
<tr><td>Yupeng</td><td>020</td><td>03</td><td>040</td></tr>
<tr><td>Yupeng</td><td>022</td><td>01</td><td>020</td><td>117°1′52.374″E
26°9′7.736″N</td><td>117°1′47.563″E
26°9′7.457″N</td><td>117°1′44.182″E
26°9′9.306″N</td><td>117°1′50.349″E
26°9′12.916″N</td></tr>
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26°9′2.021″N</td><td rowspan="14">117°4′47.544″E
26°8′32.897″N</td><td rowspan="14">117°3′30.371″E
26°9′33.309″N</td><td rowspan="14">117°4′49.932″E
26°9′51.11″N</td></tr>
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<tr><td>Yupeng</td><td>022</td><td>03</td><td>020</td></tr>
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<tr><td>Yupeng</td><td>022</td><td>07</td><td>010</td></tr>
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<tr><td>Yupeng</td><td>022</td><td>09</td><td>020</td></tr>
</table>

Yupeng	022	09	040				
Yupeng	022	14	030				
Yupeng	026	01	010	117°4′55.005″E 26°7′35.054″N	117°4′51.31″E 26°7′28.716″N	117°4′4.774″E 26°7′48.729″N	117°4′18.38″E 26°8′45.035″N
Yupeng	026	07	010				
Yupeng	026	07	030				
Yupeng	026	08	010				
Yupeng	026	14	020				
Yupeng	002	02	060	117°9′34.19″E 26°9′53.056″N	117°6′31.293″E 26°9′12.909″N	117°6′25.312″E 26°9′14.495″N	117°7′19.96″E 26°10′41.736″N
Yupeng	002	03	040				
Yupeng	003	01	020				
Yupeng	003	01	050				
Yupeng	003	02	010				
Yupeng	003	02	030				
Yupeng	003	04	010				
Yupeng	003	04	050				
Yupeng	003	05	010				
Yupeng	003	05	030				
Yupeng	003	06	010				
Yupeng	003	06	040				
Yupeng	004	01	030				
Yupeng	004	04	050				
Yupeng	004	05	050				
Yupeng	005	01	010				
Yupeng	005	01	020				
Yupeng	005	01	030				
Yupeng	005	01	040				
Yupeng	007	01	010	117°7′45.844″E 26°9′6.384″N	117°7′39.641″E 26°8′56.717″N	117°7′2.599″E 26°9′9.86″N	117°7′22.192″E 26°9′25.619″N
Yupeng	007	01	020				
Yupeng	007	01	030				
Yupeng	007	02	010				
Yupeng	007	02	030				

Yupeng	007	03	020				
Yupeng	007	03	050				
Yupeng	008	04	020	117°10′9.369″E 26°9′27.57″N	117°8′49.038″E 26°9′10.034″N	117°8′24.205″E 26°9′34.905″N	117°9′10.489″E 26°9′52.225″N
Yupeng	008	04	030				
Yupeng	008	04	060				
Yupeng	008	04	070				
Yupeng	008	05	030				
Yupeng	008	05	050				
Yupeng	008	06	020				
Yupeng	008	07	030				
Yupeng	008	09	020				
Yupeng	008	09	030				
Yupeng	008	11	010				
Yupeng	008	11	050				
Yupeng	009	03	010	117°6′26.207″E 26°7′53.002″N	117°6′21.205″E 26°7′51.071″N	117°5′15.879″E 26°8′32.155″N	117°5′18.894″E 26°8′32.72″N
Yupeng	009	04	020				
Yupeng	009	04	060				
Yupeng	009	06	010				
Yupeng	009	06	060				
Yupeng	009	06	070				
Yupeng	010	01	020	117°7′46.165″E 26°8′28.063″N	117°7′22.999″E 26°8′9.1″N	117°7′3.946″E 26°8′44.142″N	117°7′6.069″E 26°8′51.929″N
Yupeng	010	01	040				
Yupeng	010	03	040				
Yupeng	010	04	010				
Yupeng	010	04	050				
Yupeng	010	04	070				
Yupeng	011	01	040	117°10′33.428″E 26°8′50.628″N	117°9′25.169″E 26°8′18.168″N	117°7′53.429″E 26°8′30.584″N	117°8′10.903″E 26°9′15.235″N
Yupeng	011	01	070				
Yupeng	011	02	020				
Yupeng	011	02	060				
Yupeng	011	02	080				

Yupeng	011	03	040				
Yupeng	011	05	020				
Yupeng	011	05	060				
Yupeng	011	06	040				
Yupeng	011	06	060				
Yupeng	012	03	050				
Yupeng	012	03	060				
Yupeng	012	05	010				
Yupeng	012	07	030				
Yupeng	012	08	020				
Yupeng	012	09	070				
Yupeng	012	10	010				
Yupeng	012	10	020				
Yupeng	013	05	040	117°8′1.145″E 26°7′22.886″N	117°8′1.145″E 26°7′22.886″N	117°7′53.604″E 26°7′25.008″N	117°7′58.553″E 26°7′30.162″N
Yupeng	026	02	040	117°5′45.538″E 26°8′0.186″N	117°5′25.744″E 26°7′32.653″N	117°5′7.49″E 26°7′34.191″N	117°5′17.8″E 26°8′26.955″N
Yupeng	026	05	030				
Yupeng	026	05	140				
Yupeng	026	06	010				
Yupeng	026	06	040				
Yupeng	026	06	050				
Yupeng	026	06	070				
Yupeng	026	12	030				
Yupeng	026	12	040				
Yupeng	026	15	010				
Yupeng	026	15	030				
Dengjia	009	20	010	116°51′1.876″E 25°53′22.836″N	116°50′55.492″E 25°53′20.26″N	116°50′47.342″E 25°53′31.04″N	116°50′54.122″E 25°53′41.399″N
Dengjia	009	20	020				
Dengjia	009	20	050				
Dengjia	007	12	040	116°51′18.418″E 25°55′36.047″N	116°51′8.439″E 25°55′32.736″N	116°50′42.536″E 25°55′35.804″N	116°51′7.87″E 25°55′47.213″N
Dengjia	007	12	050				

Dengjia	010	05	020	116°51′16.157″E 25°53′42.505″N	116°51′6.948″E 25°53′33.403″N	116°50′57.552″E 25°53′41.347″N	116°51′9.427″E 25°53′46.324″N
Dengjia	010	07	010				
Dengjia	010	07	030				
Lijia	018	09	010	116°49′29.67″E 25°47′50.679″N	116°49′4.102″E 25°47′26.023″N	116°48′57.025″E 25°47′33.512″N	116°49′18.814″E 25°48′14.355″N
Lijia	018	09	020				
Lijia	018	09	030				
Lijia	019	08	010				
Lijia	015	04	020	116°51′53.231″E 25°48′47.307″N	116°51′44.357″E 25°48′32.717″N	116°51′27.983″E 25°49′3.309″N	116°51′34.028″E 25°49′18.861″N
Lijia	016	01	010				
Lijia	016	01	020				
Lijia	016	01	030				
Lijia	016	01	040				
Lijia	006	05	030	116°49′29.613″E 25°50′53.521″N	116°49′17.562″E 25°50′49.224″N	116°49′10.973″E 25°50′51.795″N	116°49′15.092″E 25°51′1.318″N
Lijia	006	05	090				
Litian	006	11	050	116°43′19.646″E 26°0′42.406″N	116°43′10.159″E 26°0′34.625″N	116°43′9.55″E 26°0′38.802″N	116°43′15.977″E 26°0′48.744″N
Litian	003	06	020	116°40′12.709″E 26°1′59.226″N	116°39′30.088″E 26°1′38.536″N	116°39′24.639″E 26°1′47.318″N	116°40′2.123″E 26°2′7.369″N
Litian	003	08	010				
Litian	012	04	080	116°41′18.068″E 25°58′46.683″N	116°41′16.081″E 25°58′42.982″N	116°40′56.644″E 25°59′12.773″N	116°40′56.644″E 25°59′12.773″N
Litian	012	04	120				
Litian	012	04	140				
Litian	010	06	010	116°39′19.516″E 26°0′0.357″N	116°39′10.047″E 25°59′45.203″N	116°38′48.245″E 26°0′6.558″N	116°38′56.788″E 26°0′13.199″N
Litian	010	07	020				
Litian	011	13	030	116°39′58.823″E 25°58′9.646″N	116°39′54.383″E 25°57′52.028″N	116°39′2.431″E 25°58′12.677″N	116°39′24.689″E 25°58′25.385″N
Litian	011	13	050				
Litian	011	15	010				
Litian	011	15	030				
Litian	011	17	030				
Litian	009	01	010	116°43′58.775″E 26°0′10.888″N	116°43′38.18″E 25°59′57.025″N	116°42′56.342″E 26°0′19.436″N	116°43′37.098″E 26°0′37.191″N
Litian	009	02	020				
Litian	009	03	020				

Litian	009	04	010				
Litian	009	05	010				
Litian	009	06	010				
Litian	001	10	040	116°45′2.068″E 26°2′59.828″N	116°44′29.919″E 26°2′33.085″N	116°44′14.11″E 26°2′54.86″N	116°44′47.581″E 26°3′9.501″N
Litian	002	01	010				
Litian	002	02	010				
Litian	002	04	020				
Litian	002	04	040				