



**Verified Carbon
Standard**

GUANGXI HUANJIANG IFM (CONVERSION OF LOGGED TO PROTECTED FOREST) PROJECT



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1 PROJECT DETAILS

1.1 Summary Description of the Project

- The Guangxi Huanjiang IFM (conversion of logged to protected forest) Project (hereafter “the project activity”) is implemented in Huanjiang Maonan Autonomous County, Hechi City, Guangxi Zhuang Autonomous Region of China by Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd, the geo-coordinate of the project is 107°51'E~108°43'E and 24°44'N~25°33'N, which includes the Improved Forest Management (IFM) of the forests in the conversion of logged to protected forest.
- The area of the project activity is 9,346.72 ha, including 1,306 subcompartments spreading over Huashan forest farm, Chuanshan Town, Dongxing Town, Luoyang Town, Minglun Town, Shuiyuan Town, Si'en Town, Da'an Township, Lonyan Township, Tiancai Township, Xianan Township, Xunle Township, Changmei Township of Huanjiang Maonan Autonomous County. All these forests are state-owned forests or privately-owned or collective-owned, and have the legal right to forest ownership. All the owners authorized the project proponent to access the project to their behalf. The species involved in the project are Broad-leaved tree (e.g. Castanopsis hystrix, Oak, Schima Wallichii, Acacia, Other soft Broad-leaved tree, etc), Chinese fir and Pinus massoniana. The forest of the project was older plantations or natural forest under managing. The age of Broad-leaved tree was 17-87, Chinese fir was 13-59, Pinus massoniana was 13-52. Before the implantation of the project, the usual type of management was clearcutting.
- Before the implementation of the project activity, the trees are logged based on 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 1,669,732 tCO₂e in 20 years, the average annual emission reduction is 83,486 tCO₂e and Verified Carbon Units with buffer deduction is about 1,285,683 tCO₂e in 20 years, and average annual VCUs with buffer deduction is 64,284 tCO₂e.
- The project activity will contribute to the environment (biodiversity conservation, rocky desertification prevention and soil erosion control), thus contribute to sustainable development.

1.2 Sectoral Scope and Project Type

- Sectoral scope 14 Agriculture, Forestry and Other Land Use (AFOLU)
- Improved Forest Management: Logged to Protected Forest (LtPF)
- Eligible IFM activities are those that increase carbon sequestration and/or reduce GHG emissions on forest lands managed for wood products such as sawtimber, pulpwood and fuelwood by increasing biomass carbon stocks through improving forest management practices. The baseline and project scenarios for the project area shall qualify as forests remaining as forests, such as set out in the IPCC 2006 Guidelines on National GHG Inventories, and the project area shall be designated, sanctioned or

approved for wood product management by a national or local regulatory body (e.g., as logging concessions or plantations).

- According to the Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, of Huanjiang Maonan Autonomous County, The woods in the project area are timber forests, and they meet the commercial logging standards. In the baseline scenario, the harvest timber plan for the area has been completed and approved by the Forestry Bureau of Huanjiang Maonan Autonomous County on 31-Mar-2015. In the project scenario, the forestry bureau of Huanjiang Maonan Autonomous County announced that commercial logging in the area was banned and forest protection was implemented as of 01-July-2016
- Therefore, the project accord with Improved Forest Management: Logged to Protected Forest (LtPF)

1.3 Project Eligibility

1. The six Kyoto Protocol greenhouse gases.
 2. Ozone-depleting substances.
 3. Project activities supported by a methodology approved under the VCS Program through the methodology approval process.
 4. Project activities supported by a methodology approved under a VCS approved GHG program, unless explicitly excluded under the terms of Verra approval.
 5. Jurisdictional REDD+ programs and nested REDD+ projects as set out in the VCS Program document Jurisdictional and Nested REDD+ (JNR) Requirements.
- The scope of the VCS Program excludes projects that can reasonably be assumed to have generated GHG emissions primarily for the purpose of their subsequent reduction, removal or destruction.
 - The project activity related to generation of GHG emission reductions and removals, does not include carbon footprint assessments or carbon neutrality claims. The project activities supported by a methodology of VM0010 version 1.3 is approved under the VCS Program through the methodology approval process and approved under a VCS approved GHG program¹, not excluded under the terms of Verra approval.
 - The project is eligible under the scope of the VCS Program.

1.4 Project Design

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

Eligibility Criteria

¹<https://verra.org/methodologies/>

- N/A.

1.5 Project Proponent

Organization name	Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd
Contact person	Tan Hongtao
Title	General Manager
Address	No.45 Qiaoxi Road, Si'en Township, Huanjiang Maonan Autonomous County
Telephone	+86 18977823339
Email	hjl8870101@163.com

1.6 Other Entities Involved in the Project

Organization name	Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd
Role	Authorized Representative
Contact person	Qian Jian
Title	Vice General Manager
Address	Room 801, Pearl River International Building, No.112 Yuehua Road, Yuexiu District, Guangzhou, Guangdong Province, P.R.China
Telephone	+86 20 83173681
Email	info@gzguangtan.com

- Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd is a company specializing in developing AFOLU projects, established by a team that has been engaged in AFOLU projects for many years on 02-Jun-2016. The team's success cases include Facilitating Reforestation for Guangxi Watershed Management in Pearl River Basin Project (CDM), Guangxi Daguishan Afforestation Project (CCER), Inner Mongolia Keyihe IFM (conversion of logged to protected forest) Project (VCS), etc. As the project proponent, Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd need

commission a profession company to apply the emission reductions from their IFM project activity using VCS standard, so Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd commissioned Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd. According to the communication agreement signed by Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd and Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd, Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd is the Authorized Representative who is authorized to communicate and transact with Verra on behalf of Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd,

- The Authorized Representative is authorized to undertake the following scope of activities on behalf of the Registry Users with regard to the registration of the Project in, and submission of Project-related data to, the Registry:
- (a) communicating with and providing instructions to Verra;
- (b) registering Project in the Authorized Representative's Registry Account;
- (c) submitting the Project's activity and reports to the Registry;
- (d) requesting issuance of Instruments;
- (e) making transfers of Instruments;
- (f) making payments on behalf of Registry Users; and
- (g) submitting, discussing, amending and doing any other such necessary thing in relation to reports and documents required from Project Proponents under the Operative Documents as set out and amended from time to time on Verra's website.
- The project proponent will abide by any direction duly issued by Verra to the Authorized Representative.

1.7 Ownership

- The forests of this project are owned by many different owners, including stated-owned owners, privately-owned and collective-owned. According to the agreements signed by the owners, Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd and Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd, Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd, which is authorized by the forest owners will execute the corresponding power of distributing CERs revenue. Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd commissioned Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd to apply the emission reductions from their IFM project activity using VCS standard.

1.8 Project Start Date

- The project start date is 01-July-2016.²

²This is according to the Notice of Guangxi Huanjiang IFM (Conversion of Logged to Protected Forest) Project issued by Huanjiang Maonan Autonomous County Forestry Bureau on December 28, 2015

- This is according to the Notice of Guangxi Huanjiang IFM (Conversion of Logged to Protected Forest) Project issued by Huangjiang Maonan Autonomous County Forestry Bureau on 28-Dec-2015. The Notice stipulated that in order to implement Guangxi Huanjiang IFM (conversion of logged to protected forest) Project, commercial logging would be strictly forbidden and forest protection would be implemented from 01-July-2016. Since the project start date, the project activity includes the Improved Forest Management (IFM) of the forests are all converted to protected forests and prevent any commercial logging.

1.9 Project Crediting Period

- According to VCS Standard version 4.1, the start date of the project activity is 01-July-2016, which is indicated in the notice on the forbidding commercial logging was issued by Huangjiang Maonan Autonomous County Forestry Bureau on 28-December-2015. It is indicated in this notice issued by local forest authority that from 01-July-2016 the commercial timber harvest was strictly forbidden within the project boundary. Therefore, the project crediting period is from 01-July-2016 to 30-June-2036 with the total length of 20 years, indicated in the VCS development consultation and service agreement.
- According to the owner's forest ownership document, each owner had more than 60 years of ownership of forest in the project site since the project started. Therefore, the project lifetime can be considered as at least 30 years base on conservative principles.

1.10 Project Scale and Estimated GHG Emission Reductions or Removals

Project Scale	
Project	×
Large project	

Years	Estimated GHG emission reductions or removals (tCO ₂ e)	Estimated GHG emission reductions or removals with buffer deduction (tCO ₂ e)
01/07/2016-30/06/2017	111,450	85,816
01/07/2017-30/06/2018	117,601	90,553
01/07/2018-30/06/2019	134,392	103,482
01/07/2019-30/06/2020	150,033	115,525
01/07/2020-30/06/2021	149,287	114,950
01/07/2021-30/06/2022	89,151	68,645
01/07/2022-30/06/2023	89,151	68,645
01/07/2023-30/06/2024	89,151	68,645
01/07/2024-30/06/2025	89,151	68,645
01/07/2025-30/06/2026	89,151	68,645

01/07/2026-30/06/2027	81,368	62,653
01/07/2027-30/06/2028	73,779	56,809
01/07/2028-30/06/2029	65,201	50,205
01/07/2029-30/06/2030	55,787	42,955
01/07/2030-30/06/2031	47,513	36,585
01/07/2031-30/06/2032	47,513	36,585
01/07/2032-30/06/2033	47,513	36,585
01/07/2033-30/06/2034	47,513	36,585
01/07/2034-30/06/2035	47,513	36,585
01/07/2035-30/06/2036	47,513	36,585
Total estimated ERs	1,669,732	1,285,683
Total number of crediting years	20	
Average annual ERs	83,486	64,284

1.11 Description of the Project Activity

- Guangxi Huanjiang IFM (conversion of logged to protected forest) Project activity is located in Huanjiang Maonan Autonomous County, Hechi City, Guangxi Zhuang Autonomous Region of China. The annual mean temperature of the southern hills is 19.9 °C and the northern mountainous area is 15.7 °C. The annual mean precipitation of the southern area is 1389.1 mm and the northern area is 1750.0 mm.
- The project activity includes the Improved Forest Management (IFM) of the forests in 1,306 subcompartments spreading over Huashan forest farm, Chuanshan Town, Dongxing Town, Luoyang Town, Minglun Town, Shuiyuan Town, Si'en Town, Da'an Township, Lonyan Township, Tiancai Township, Xianan Township, Xunle Township, Changmei Township of Huanjiang Maonan Autonomous County by the conversion of logged to protected forest. All the subcompartments had the legal right to harvest issued by local forest bureau before the implementation of the project activity. Before 2016, they were all forests which the trees could be logged and sold once reached the cutting rotation age based on a timber harvest plan. After 01-July-2016, they are all converted to protected forests.
- Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd and Guangzhou Guangtan Carbon Emission Development & Investment Co., Ltd together have overall control responsibility for the project. The latter is also in charge of applying VCS project.
- The purpose of strata is to improve accuracy and reduce the sampling cost. The strata is usually based on the tree species, age and canopy density, but it does not mean all these factors should be considered for all projects, more strata means more workload and cost. For this project, the factor of species for strata could reduce the variation within the same stratum and reach the accuracy level of 90% under certain degree of freedom. So the strata are reasonable and feasible.
- All the subcompartments are divided into 3 strata based on the tree species.

Serial number of strata	Area (ha)	Tree species	Source
1	4,440.05	Broad-Leaved tree	Timber harvest plan issued by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team. The Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute.
2	2,736.96	Chinese Fir	
3	2,169.71	Pinus massoniana	
Total	9,346.72ha		

- The implementation of the project activity includes the conversion from logged to protected forests in the parcels mentioned above. After the activity, trees could be avoided to be logged and then the

carbon stocks could be increased. Therefore, net GHG emission reductions/removals resulting from the implementation of IFM projects aimed at the protection of forests that would be logged in the absence of carbon finance could be earned by the project activity.

- The project will promote local sustainable development by the conversion of logged to protected forest. Major contributions of the project are as follows:
 - 1) The implementation of the project will control soil and water erosion and land degradation in the project area.
 - 2) The implementation of the project will enhance biodiversity conservation by increasing forest cover and nature habitat connectivity.
 - 3) The implementation of the project will absorb and fix carbon dioxide every year by conversion of logged to protected forest, and reduce GHG emission.
 - 4) The implementation of the project will generate income for the local farmers by regular forest management. Local people's standard of living has been developed.
- When the project was implemented, the local forestry bureau would not issue cutting quotas to all forest-owners within the project area. The PP, Huanjiang Maonan Autonomous County Huashan Forestry Investment Co., Ltd would organize forest-owners to turn the personnel for logging into those for forest protection. In this case, the PP was responsible for the organization and coordination, the forest-owners or the employees were responsible for the implementation of management, protection and planting, and the local forestry bureau is responsible for the supervision
- When the project was implemented, the project was not located within a jurisdiction covered by a jurisdictional REDD+ program.
-

1.12 Project Location

- The project is located in Huanjiang Maonan Autonomous County, Hechi City, Guangxi Zhuang Autonomous Region of P.R.China. The geo-coordinate range of the project is $107^{\circ}51'E \sim 108^{\circ}43'E$ and $24^{\circ}44'N \sim 25^{\circ}33'N$. There are 1,306 subcompartments spreading over Huashan forest farm, Chuanshan Town, Dongxing Town, Luoyang Town, Minglun Town, Shuiyuan Town, Si'en Town, Da'an Township, Lonyan Township, Tiancai Township, Xianan Township, Xunle Township, Changmei Township of Huanjiang Maonan Autonomous County.
- The schematic diagram of the location of the project is shown in figure 1 below:



Guangxi Zhuang Autonomous Region



Hechi City



Huanjiang Maonan Autonomous County



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was 13-59, *Pinus massoniana* was 13-52. Before the implantation of the project, the usual type of management was clear cutting.

- The project is located in Huanjiang Maonan Autonomous County.
- The baseline scenario of the project is the same as the conditions existing prior to the project initiation. Refer to Section 3.4 (Baseline Scenario) for details.
- The project area is located in the southern edge of the central Guizhou plateau slope zone, the general terrain is high in the north and low in the south, the surrounding mountains are rolling, the central south is hilly, slightly basin, the west and northwest are mostly stone mountains, the northeast is more earthen mountains. The county can be divided into four geomorphologic types: north and northeast of the erosion of the middle and low mountain landforms, is a part of the Miaoling Mountains ninety thousand mountains, huge mountains, ravines and valleys, is the main forest distribution area in the county; The central and northern part of the land form is low mountain cluster; In the middle and south, there are middle and high mound erosion geomorphic areas. The southwest is the Karst landform area. County elevation between 400~1000 m, the highest peak for Biaoshan Village nameless peak, 1693 m above sea level; The lowest place is the riverbed of Bafu Village, Changmei Township, with an altitude of 149 m and a relative elevation difference of 1544 m. Throughout the county, geomorphic types are mainly low mountains and hills.
- Huanjiang County is a subtropical monsoon climate zone, mild climate, abundant rain, adequate sunshine, winter without cold, summer without heat, rain and heat in the same season, long frost-free period. The average annual temperature in the southern hilly area is 19.9 °C, and the northern mountainous area is 15.7 °C. The average temperature in January is 10.1 °C, the average temperature in July is 28 °C, and the lowest temperature in the past year is -5.2 °C. The frost-free period was 290 days, and the average annual sunshine duration was 145.1 hours. The annual solar radiation is 98.89 kcal /cm²; The annual average rainfall is 1750.0mm in the north and 1389.1mm in the south, concentrated in April to September, accounting for 70% of the annual rainfall. The minimum rainfall in the past year is 922.8mm, the evaporation is 1571.1mm, and the average relative humidity of air is 79%.
- Huanjiang County has two major rivers: the Great Huanjiang River and the Little Huanjiang River, both originating in Guizhou Province, running through the county from the north to the Longjiang River, and all the rivers of the county are emptying into the two rivers respectively. Dahuan River is 164.8 km in length, 147.2 km within the county, with a basin area of 8850 km², and an average annual flow of 62.4 m³/s. XiaohuanRiver is 136.5 km in length, 94.1 km in length within the county, with a basin area of 2338 km² and an average annual flow of 39.3 m³/s. There are 136 tributaries of the two rivers with a rainwater collecting area of more than 10 km², and the total length of the rivers in the county is 631.3 km. Within the scope of forest, it had a whole south Asia tropical mountain forest ecosystem. Prior to project implementation, the present ecosystem is emerging more and more fragile due to years of logging.
- The natural soils in Huanjiang County can be divided into six subtypes: red soil, yellow red soil, yellow soil, brown calcareous soil and black calcareous soil. The parent rock of the soil formation is sand

shale, limestone, sandstone and shale. Yellow soil is distributed in the middle and low mountains with an altitude of over 800 m. Yellow red soil is a transitional type from red soil to yellow soil, which is distributed at an altitude of 500~800 m. Yellow red soil and yellow red soil have obvious layers, high organic matter content, pH value between 5.5 and 6.8, deep soil layer, and strong natural fertility. Red soil is distributed in the hilly terrains or the middle and lower parts of the low mountains below 500 m, with obvious soil development levels. The pH value ranges from 4.3 to 5.5, and it is rich in organic matter. Calcareous soil is mainly distributed in limestone areas, with dark color, heavy texture, pH between 6.0 and 7.4, not obvious layers and high organic matter content. The project area used to be covered by dense primordial forest, the quantity and species of wild animals and plants were plentiful. Prior to project implementation, the quantity and species of wild animals and plants are less and less due to years of timber harvest.

- The implementation of project (conversion of logged to protected forest) will increase the stability of the ecosystem, enhance biodiversity conservation by increasing forest cover and nature habitat connectivity.

1.14 Compliance with Laws, Statutes and Other Regulatory Frameworks

- The project activity is in line with the Forest Law of People's Republic of China and Guangxi Zhuang Autonomous Region ecological public welfare forest management approach. According to the law, the local forestry bureau issued the forest right certificate and have the right to set out the cutting quota in the harvest plan, and the forest owner have the right to decide their harvest amount, which could not be more than the cutting quota. The project has complied with the above regulations and laws during construction period and will be under regular inspection by local government during the implementation of the project activity to ensure the continuous compliance.

1.15 Participation under Other GHG Programs

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

- The project has not been registered, or is seeking registration under any other GHG programs.

1.15.2 Projects Rejected by Other GHG Programs

- The project has not been rejected by any other GHG programs.

1.16 Other Forms of Credit

1.16.1 Emissions Trading Programs and Other Binding Limits

- N/A

1.16.2 Other Forms of Environmental Credit

- The project has neither intends to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program, nor any such credit has been or will be cancelled from the relevant program.

1.17 Additional Information Relevant to the Project

Leakage Management

- The total timber harvest volumes are based on the logging quotas which approved by local forest bureau. When the IFM project activity was implemented, there would be no logging quotas for the forests in the area of the project be approved. The country logging could not be increased without any logging quotas. Therefore, the IFM project activity was with no effect on timber harvest volumes, there is no leakage risk.
- The leakage factor is determined by 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.
- Therefore,
- $LF_{ME} = 0$
- If it can be demonstrated that no market-effects leakage will occur within national boundaries, that is if no new concessions are being assigned AND annual extracted volumes cannot be increased within existing national concessions AND illegal logging is absent (or deminimis) in the host country.

Commercially Sensitive Information

- There are no commercially sensitive information been excluded from the public version of the project description.

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 carbon sequestration and contribute to the environment (e.g. biodiversity conservation rocky desertification control and soil erosion control), thus contribute to sustainable development.

Further Information

- There is no additional relevant legislative, technical, economic, sectoral, social, environmental, geographic, site-specific and/or temporal information that may have a bearing on the eligibility of the project, the net GHG emission reductions or removals, or the quantification of the project's net GHG emission reductions or removals.

2 SAFEGUARDS

2.1 No Net Harm

- An Environmental Impact Assessment (EIA) is not required for logged to protected forest projects according to Construction project classification management of environmental impact assessment list. The key mitigation action of the project activity is avoiding the illegal harvest of the forest, which can protect and improve the surviving environment, keep the ecological balance, save the species resources and enhance homeland security.
- According to the guideline of the General Office of the State Council on improving the compensation mechanism for ecological protection³, the commercial logging subsidy and reward funds will be stopped, and the dynamic adjustment mechanism of forest compensation standards will be improved to improve the management and protection mechanism of forest, which mainly relies on government purchase of services. In this way, this will make up for the loss of timber harvest income for the foresters, as well as an additional income when the VCUs are sold.
- Therefore, there is no potential negative environmental or socio-economic impact due to the project.

2.2 Local Stakeholder Consultation

- Questionnaires were distributed by the project proponent to the the residents who lives in the community, officers of the local forestry bureau, staffs of Huashan Forestry farm, villagers committee, and other closely related to the project. The questions aimed to find out their concerns and opinions about the project. The questionnaires covered areas of economic, social benefit and environmental effect etc. The content of the questionnaire includes the following information :
 1. The purpose of the questionnaire
 2. Basic information of the participants
 3. Questions
 - 1) Do you know the proposed project?
 - 2) What do you think the proposed project will bring to you?
 - 3) Do you support the implementation of the proposed project?
 - 4) What is your concern about the proposed project?

³http://www.gov.cn/zhengce/content/2016-05/13/content_5073049.htm

5) What is your opinion and suggestion regarding the proposed project?

Basic information of the interviewee

Gender	Age	Education Level	Position
M	51	Primary Education	Forester
M	45	Middle School Degree	Staff of Huashan Forestry Farm
M	48	Middle School Degree	Staff of Huashan Forestry Farm
M	61	High School Degree	Villager committee
M	35	Middle School Degree	Forester
M	41	Middle School Degree	Forester
M	40	Middle School Degree	Forester
M	35	Middle School Degree	Staff of Huashan Forestry Farm
M	47	High School Degree	Forester
F	32	Bachelor Degree	Officer of Local Forestry Bureau
M	35	Middle School Degree	Staff of Huashan Forestry Farm
M	44	Middle School Degree	Forester
F	44	Middle School Degree	Forester
M	29	College Degree	Officer of Local Forestry Bureau
F	31	College Degree	Officer of Local Forestry Bureau
M	36	Bachelor Degree	Officer of Local Forestry Bureau
F	36	College Degree	Villager committee
M	65	Primary Education	Forester
F	29	Bachelor Degree	Villager committee
F	31	Bachelor Degree	Villager committee
M	52	Bachelor Degree	Officer of Local Forestry Bureau
M	30	Bachelor Degree	Villager committee
F	39	Bachelor Degree	Staff of Huashan Forestry Farm

F	27	College Degree	Staff of Huashan Forestry Farm
F	54	Middle School Degree	Forester
M	28	Bachelor Degree	Officer of Local Forestry Bureau
F	26	Bachelor Degree	Officer of Local Forestry Bureau
M	47	Middle School Degree	Forester
F	26	Bachelor Degree	Officer of Local Forestry Bureau
F	30	Bachelor Degree	Officer of Local Forestry Bureau
M	46	Middle School Degree	Forester
M	50	Middle School Degree	Forester
M	48	College Degree	Staff of Huashan Forestry Farm
M	50	College Degree	Staff of Huashan Forestry Farm
M	47	College Degree	Staff of Huashan Forestry Farm
F	40	College Degree	Villager committee
M	46	College Degree	Villager committee
M	39	Middle School Degree	Forester
F	36	High School Degree	Forester
M	40	High School Degree	Forester
M	40	Middle School Degree	Forester
M	38	High School Degree	Staff of Huashan Forestry Farm
F	25	College Degree	Staff of Huashan Forestry Farm
M	22	College Degree	Villager committee
F	25	College Degree	Villager committee
M	27	Bachelor Degree	Villager committee
F	30	Bachelor Degree	Villager committee
M	35	Middle School Degree	Forester
M	36	Middle School Degree	Forester
M	39	Middle School Degree	Forester

F	35	College Degree	Villager committee
M	40	Middle School Degree	Forester

- The Survey was conducted through distributing and collecting responses to a questionnaire in Dec 2015. Totally 50 questionnaires returned out of 50 with 100% response. The following is a summary of the key findings based on returned questionnaires.

1. Attitude towards the proposed project

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

2. The concern about the proposed project

- The project could reduce tree logging by more than 300,000m³ and manage forest effectively, so that it can control soil and water erosion and land degradation, prevent rocky desertification, enhance biodiversity conservation by increasing forest cover and nature habitat connectivity, absorb and fix carbon dioxide every year by conversion of logged to protected forest, and reduce GHG emission.
- At the same time, the project will provide thousands of employment opportunities for managing forest.

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.
- During the implementation of the project, the local forestry bureau would continue to conduct a questionnaire survey among stakeholders to understand their opinions. Since the project is running normally, local stakeholders have no opinion. The local forestry bureau also conducts regular training on ecological forest conservation for stakeholders to ensure better implementation of the project.
 - The project design and implementation, including the results of monitoring.
It will be announced by the local forestry bureau.
 - The risks, costs and benefits the project may bring to local stakeholders.
PP has entered into agreements with various local stakeholders of the project, which are supervised by the local forestry bureau.
 - All relevant laws and regulations covering workers' rights in the host country.
The local forestry bureau has publicized to the local stakeholders of the project.
 - The process of VCS Program validation and verification and the validation/verification body's site visit.
- The validation body's visit has completed in Nov, 2020. The process of validation will be completed before October, 2021
-

2.3 Environmental Impact

- An *Environmental Impact Assessment (EIA)* is not required for logged to protected forest projects according to Construction project classification management of environmental impact assessment list⁴. The key mitigation action of the project activity is avoiding the illegal harvest of the forest, which can protect and improve the surviving environment, keep the ecological balance, save the species resources and enhance homeland security.
- Therefore, the project has no negative impact on the environment.

2.4 Public Comments

- This project was open for public comment from 08–September–2020 to 08–October–2020. No comments were received.⁵

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2.5 AFOLU-Specific Safeguards

- *Local stakeholder identification process and a description of results.*
- The local stakeholder mainly include state-owned forest farms, collective-owned forestry owners and private forestry owners in Huanjiang Maonan Autonomous County who lives near by the project and the local government. Before start construction, project owner had distributed questionnaires for local stakeholder to investigate the suggestion of them on the construction of the project, including the impact on society, economy and life. 50 investigation questionnaires have been returned, of which, 36% are women, 58% are graduated from high school or inferior school, 100% are elder than twenty years old. According to Chapter II of the Labour Law of the People's Republic of China⁶, workers are not discriminated against in employment on the basis of their ethnic group, race, sex or religious belief. Women enjoy equal rights with men in employment, and employers are prohibited from recruiting minors under the age of 16. As the supervisor of the project, the local forestry Bureau supervised that all parties of the project did not violate laws during the implementation of the project, including labour and criminal laws, so as to avoid discrimination (gender/age/religion) and sexual harassment.
 - *Risks to local stakeholders due to project implementation and how the project will mitigate such risks.*
- According to agreement between PP and local stakeholders, there is no risk to local stakeholders due to the project implementation.
 - *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.*

⁴http://www.gov.cn/gongbao/content/2009/content_1265996.htm

⁵<https://registry.verra.org/app/projectDetail/VCS/2327>

⁶http://www.mohrss.gov.cn/SYRlzyhshbzb/zcfg/flfg/fl/201601/t20160119_232110.html

- Prior to the implementation of the project, the project proponent and local forestry Bureau held a mobilization meeting about the project activities. The local forestry bureau informed the representatives of each stakeholder to participate the meeting through the forestry stations of each township. The mobilization meeting was held in Jan 2016. The project proponent presented: what the project activity was, the benefit of the local stakeholders, the risks, costs and benefits the project might bring to local stakeholders, the relevant laws and regulations, the rights of workers, the process of VCS Program validation and verification and the validation/verification body's site visit, etc in the meeting. When the project implement, the local stakeholders could not get timber harvest. But according the agreements signed by the PP and the local stakeholders, the PP would apply the project to VCS project. Then the local stakeholders could live for selling VCU instead of selling timber harvest. Meanwhile, local forestry bureau would provide more jobs opportunities for the local stakeholders to manage and protect the forest, so as to ensure that the income of stakeholders was increased. So the project will not impact local stakeholder's property rights without the free, prior and informed consent. All the local stakeholders were excited and indicated that they would support the project activity.
 - *Processes to ensure ongoing communication and consultation with local stakeholders, including a grievance redress procedure to resolve any conflicts which may arise between the project proponent and local stakeholders.*
- Based on participatory rural appraisal tools such as field trips, questionnaires, community meetings and interviews with representative of the local stakeholders, the project activity was evaluated. The results showed that: The project activity could well reflect the livelihood development needs of local stakeholders, and would contribute not only to climate change mitigation, but also to community economic development and environmental protection. Relevant stakeholders such as farmers, communities and governments have put forward useful suggestions for the implementation of the project.
- PRA (Participatory Rural Appraisal) will be done every two years, and the local government resolves any conflicts which may arise between the project proponent and local stakeholder according to the relevant law.
-

3 APPLICATION OF METHODOLOGY

3.1 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 V2.1*
 - *Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities", V3.0*
 - *Tool for "AFOLU Non-Permanence Risk Analysis", V4.0*

3.2 Applicability of Methodology

- According to VM0010 version 1.3, Projects must fall within the AFOLU project category “IFM Logged to Protected Forest” as defined in the most recent version of the VCS AFOLU Guidance document. Therefore, specific conditions which can be applicable to the methodology are shown below:
 - ◆ *Forest management in the baseline scenario must be planned timberharvest;*
There is a planned timber harvest before the conversion of Logged to Protected Forest as the baseline scenario.
 - ◆ *Under the project scenario, forest use is limited to activities that do not result in commercial timber harvest or forestdegradation;*
Under the project scenario, there is no forest use for commercial timber harvest or forest degradation. Only forest tending and managing are allowed in the timber harvest plan, which has been strictly carried out by the project proponent.
 - ◆ *Planned timber harvest must be estimated using forest inventory methods that determine allowable offtake as volume of timber (m^3ha^{-1});*
There are regular forest inventory taken by forestry surveycompany and the local forestry bureau who is qualified, experienced for the forestry investigation. Then local forestry bureau uses these data, based mainly on the stock volume to estimate the planned timber harvest and then to determine allowable offtake as volume of timber (m^3ha^{-1}). In the project scenario, the planned timber harvest would not be cut, just be tended.
 - ◆ *The boundaries of the forest land must be clearly defined anddocumented;*
The boundaries of the forest land could be clearly defined and documented through the maps and the forest inventory data. The location of the forest is measured by GPS and draw map. Both the forest map and the Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, will be monitored periodically by the government according to the local laws andregulations.
 - ◆ *Baseline scenario cannot include conversion to managed plantations;*
According to the previously issued timber harvest plan, the project baseline scenario is planned timber harvest within the project area, which doesn't include conversion to managed plantations.
 - ◆ *Baseline scenario, project scenario and project case cannot include wetland or peatland*
According the Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, the baseline scenario, project scenario and project case don't include wetland or peatland.
 - ◆ *All applicability conditions of VCS and CDM tools used in conjunction with this methodology must bemet.*

The project meets all applicability conditions of VCS and CDM tools used in conjunction with this methodology.

- 1) CDM Tool for Calculation of the Number of Sample Plots for Measurements within A/R CDM Project Activities V2.1
This tool has no internal applicability conditions, so the project can use this tool to calculate the number of sample plots for measurements.
- 2) Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities”V3.0
The applicability conditions are:
 - a) AFOLU activities the same or similar to the proposed project activity on the land within the

proposed project boundary performed with or without being registered as the VCS AFOLU project shall not lead to violation of any applicable law even if the law is not enforced;
Yes, all projects are in conformity with law.

- b) The use of this tool to determine additionality requires the baseline methodology to provide for a stepwise approach justifying the determination of the most plausible baseline scenario. Project proponent(s) proposing new baseline methodologies shall ensure consistency between the determination of a baseline scenario and the determination of additionality of a project activity.

Yes, the baseline methodology uses a stepwise approach justifying the determination of the most plausible baseline scenario. And project proponent proposing new baseline methodologies ensure consistency between the determination of a baseline scenario and the determination of additionality of a project activity.

- 3) Tool for “AFOLU Non-Permanence Risk Analysis”, V4.0

The applicability conditions are the same as the methodology VM0010.

Eligibility

Legal Right to Harvest

According to Forest law of the People's Republic of China⁷ and Regulations of the People's Republic of China on Forestry Law⁸, the forest owner cannot increase timber harvest freely according to timber market without government approval. Baseline deforestation in the project area was planned by Forestry Investigation, Planning and Design Team who is qualified⁹. And the forest lands in the project area were legally permitted by local forestry bureau before the project started.

Intent to Harvest

According to the data of Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County¹⁰ taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, all the woodlands in the project are timber forests. Before 2016, all forests in the project area which the trees could be logged and sold once reached the cutting rotation age under Timber Harvest Agreements based on Forest Cutting Quota which approved by government of Guangxi.

Timber Resource

According to the Timber Harvest Plan, there are three timber species.

Timber species	Area (ha)	Volume	Source
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⁷ http://www.gov.cn/xinwen/2019-12/28/content_5464831.htm

⁸ http://www.gov.cn/zhengce/2020-12/26/content_5574381.htm

⁹ Attachment 1: Huanjiang Maonan Autonomous County 13th five years Forest Logging Area Timber Harvest Plan.

Attachment 2: Approval of Timber Harvest Plan

Attachment 5: Quality Certificate of Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team

¹⁰ Attachment 4: The data of Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County

Broad-Leaved tree	4,440.05	679106.66	Timber harvest plan issued by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team. The Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute,
Chinese Fir	2,736.96	316732.24	
Pinus massoniana	2,169.71	301062.35	
Total	9,346.72ha	1296901.25	

The project area only includes commercial forests, the ecological forests are excluded from the project boundary. The harvestable forests are listed into annual operating areas using clear felling¹¹. The product produced by cutting logs with vertical and horizontal sawing. Generally called sawnwood. Sawnwood products are mainly plank, square, sleepers and so on. They would be determined by the requirements of the customers.

3.3 Project Boundary

- According to VM0010 version 1.3, the spatial boundaries of the project activity so as to facilitate accurate measuring, monitoring, accounting, and verifying of the project's emissions reductions and removals is defined below:
- Geographical Boundaries
- When describing physical project boundaries, the information is shown in Figure 1 above. There are 1,306 subcompartments. The details of the subcompartments (e.g. compartment number, subcompartment number, local name, Unique identifier for each discrete land parcel used in the timber harvest plan, area, age, species, stock volume and geographic coordinates of each polygon vertex) are shown in timber harvest plan and the Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, as appendix submitted to DOE. The geographic boundaries of the project activity are fixed and thus do not change over the project lifetime.
- Following the VCS definition of market leakage the geographic boundaries for leakage from market effects are those of the country in which the project area occurs.
- Temporal Boundaries
- The following temporal boundaries shall be defined:
- The temporal boundaries are defined by the project start date and length of the project crediting period

¹¹ Attachment 3: Timber Harvest Schedule of Huanjiang of 13th Five-Year Plan

- According to VCS standard version 4.1, the start date of the project activity is 01-July-2016. The length of the project crediting period is 20 years.
- The minimum duration of a monitoring period is one year and the maximum duration is 10 years.
- The project proponent decides the periodicity of verifications at least every 5 years.
- Carbon Pools
- The carbon pools included or excluded from the project boundary are shown in the table below:

Carbon pools	Included/Optional/ Excluded	Justification / Explanation of choice
Aboveground trees	Included	The stock change in the aboveground tree biomass is estimated
Aboveground non- tree	Excluded	Exclusion is always conservative when forests remain as forest
Belowground	Excluded	Unlikely to change significantly in forests remaining as forests and is difficult to measure - omission is conservative
Dead wood (logging slash)	Included in the baseline	The dead wood (logging slash) carbon pool is expected to be larger in the baseline than in the project scenario, and therefore this pool must be included
Dead wood (naturally accumulated)	Excluded	Following IPCC guidelines, it is assumed that carbon stocks in the naturally occurring dead wood pool (both standing and lying) are equivalent in both the project and baseline scenario, and therefore this pool is conservatively excluded.
Harvested wood products	Included	Will be greater in baseline than project scenario and significant
Litter	Excluded	Insignificant and exclusion is conservative
Soil organic carbon	Excluded	Exclusion is always conservative when forests remain as forest

- Greenhouse Gases
- The emissions sources included in or excluded from the project boundary are shown in the table below.
- The project proponent has chosen to exclude to account for GHG emissions related to the combustion of fossil fuels, which is conservative.
- If the application of the most recent version of the CDM Tool for testing significance of GHG emissions in A/R CDM project activities leads to the conclusion that the emission source is insignificant. In addition, the sum of decreases in carbon pools and increases in emissions that may be neglected must be less than 5% of the total project GHG benefits.

Source		Gas	Included?	Justification/Explanation
Baseline	Combustion of fossil fuels (in vehicles, machinery and equipment)	CO ₂	Excluded	Conservative as emissions will be greater in the baseline scenario than in the project scenario.
		CH ₄	Excluded	Conservative as emissions will be greater in the baseline scenario than in the project scenario.
		N ₂ O	Excluded	Conservative as emissions will be greater in the baseline scenario than in the project scenario.
	Removal of herbaceous vegetation	CO ₂	Excluded	Based on CDM EB decision reflected in paragraph 11 of the report of the 23 rd session of the board: https://cdm.unfccc.int/Panels/ar/023/ ar_023_rep.pdf
	Burning of biomass	CH ₄	Included	Included as CO ₂ equivalent emission
		N ₂ O	Excluded	Potential emissions are negligible
	Nitrogen based fertilizer	N ₂ O	Excluded	Potential emissions are negligible. Following the VCS update to the Tool for AFOLU Methodological Issues and Guidance for AFOLU Projects, emissions through the use of fertilizer are considered insignificant and are not considered here.
Project	Combustion of fossil fuels (in vehicles, machinery and equipment)	CO ₂	Excluded	Conservative as emissions will be greater in the baseline scenario than in the project scenario.
		CH ₄	Excluded	Conservative as emissions will be greater in the baseline scenario than in the project scenario.
		N ₂ O	Excluded	Conservative as emissions will be greater in the baseline scenario than in the project scenario.
	Removal of herbaceous vegetation	CO ₂	Excluded	Based on CDM EB decision reflected in paragraph 11 of the report of the 23 rd session of the board: https://cdm.unfccc.int/Panels/ar/023/ ar_023_rep.pdf
	Burning of biomass	CH ₄	Included	Included as CO ₂ equivalent emission
		N ₂ O	Excluded	Potential emissions are negligible
	Nitrogen based fertilizer	N ₂ O	Excluded	Potential emissions are negligible. Following the VCS update to the Tool for AFOLU Methodological Issues and Guidance for AFOLU Projects, emissions through the use of fertilizer are considered insignificant and are not considered here.

3.4 Baseline Scenario

3.4.1 Selection of baseline

- According to VM0010, the “Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities” (version 3.0), the following steps are applied for the demonstration of the additionality for the project by project proponent:
 - a) Step 1. Identification of alternative land use scenarios to the proposed VCS AFOLU project activity
 - Sub-step 1a. Identify credible alternative land use scenarios to the proposed VCS AFOLU project activity
 - Sub-step 1b. Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations
 - Sub-step 1c. Selection of the baseline scenario
 - b) Step 2. Investment analysis
 - Sub-step 2a. Determine appropriate analysis method
 - Sub-step 2b. – Option I. Apply simple cost analysis
 - Sub-step 2b. – Option II. Apply investment comparison analysis
 - Sub-step 2b – Option III. Apply benchmark analysis
 - Sub-step 2c. Calculation and comparison of financial indicators (only applicable to options II and III)
 - Sub-step 2d. Sensitivity analysis (only applicable to options II and III)
 - c) Step 3. Barrier analysis
 - Sub-step 3a. Identify barriers that would prevent the implementation of the type of proposed project activity
 - Sub-step 3b. Show that the identified barriers would not prevent the implementation of at least one of the alternative land use scenarios (except the proposed project activity)
 - d) Step 4. Common practice analysis

This section focuses on how to determine the selection of baseline, so only sub-step 1a is mentioned in this section. The remaining steps (e.g. sub-step 1b, sub-step 1c, step 2, step 3, step 4) are expounded in section 3.5.
- a) Identify realistic and credible land-use scenarios that would have occurred on the land within the proposed project boundary in the absence of the AFOLU project activity under the VCS. The scenarios should be feasible for the project area taking into account relevant national and/or sectoral policies and circumstances, such as historical land uses, practices and economic trends. The identified land use scenarios at least include:
 - i) Continuation of the pre-project land use as the timber harvest plan;
 - ii) Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project;
 - iii) If applicable, activities similar to the proposed project activity on at least part of the land within the project boundary of the proposed VCS AFOLU project at a rate resulting from:
 - Legal requirements; or
 - Extrapolate similar activities in the geographical area under similar socioeconomic and ecological conditions to the proposed VCS AFOLU project activity which cover a period began a decade earlier than the project start date.

- For (ii), the NPV under this scenario is obviously not financially attractive compared to the scenario of logging.
- For (iii), According to the Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, the lands within the project boundary of the proposed VCS AFOLU project are all with the same legal requirements and are existed as forests more than ten years prior to the project start date. So (iii) is not applicable.
- Therefore, the baseline scenario is continuation of the pre-project land use as the timber harvest plan.
- The baseline is further confirmed by the timber harvest plan issued by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team and is determined in PD.

3.4.2 Modelling the baselinescenario

- According to VM0010 version 1.3, a historical baseline scenario is used for determining how to model the baseline management scenario as:
 1. Historical records of forest management exist for 5 years preceding the project start date;
 - The forest management plan for 2011-2015 is provided.
 2. Historical records indicate that the management practices have surpassed the legal requirements provided by conforming to all local and regional forest legislation;
 - It's according to the timber harvest plan, Forest law of the People's Republic of China¹², Regulations of the People's Republic of China on Forestry Law¹³, and the 13thFive-year Forest Harvest Limit issued by State Council (Guohan [2016] No.32)¹⁴, the maximum timber harvest volume in Guangxi Zhuang Autonomous Region during the period from 2016 to 2020 is $4460.9 \times 10^4 \text{ m}^3$ per year. Therefore, the maximum timber harvest is strictly controlled by the national forest authority, which not means forbidding timber harvest. Therefore, the project owner has the right to decide the quantity of logging within the authorized limit. (The project activity conversion of logged to protected forest on the land within the project boundary without being registered as the VCS AFOLU project) is not mandated by any systematically enforced law, statute or other regulatory framework, and is compliance with enforced mandatory applicable laws and regulations.
 3. Historical records that indicate that the historical management surpasses financial barriers by providing above average financial returns.
 - According to log-books of timber harvested before project start, and receipts of timer selling in the past, timber harvest could be sold 900RMB/m³. It's considerable timeber harvest income for the local stakeholders. There was no other income for the local stakeholders without timber harvest in the past.

¹²http://www.law-lib.com/law/law_view.asp?id=7

¹³http://www.gov.cn/zhengce/content/2016-02/16/content_5041486.htm

¹⁴ http://www.gov.cn/zhengce/content/2016-02/16/content_5041486.htm

Therefore, there were no financial barriers that prevented the harvesting when timber was harvested in the area in the past.

- A timber harvest plan including a detailed timber harvesting schedule based on the historical common practice and the academic research are provided. The timber harvest plan of the project and cross-checked with local forestry bureau, and confirm the timber harvest plan is reasonable and consistent with the applicable laws and regulations and as per the methodology as below box.

Box 1. Timber Harvest Plan

The description of harvesting in the form of a timber harvest plan forms the basis of the baseline scenario for greenhouse gas accounting.

The timber harvest plan describes the harvest of timber products:

- reference the forest volume inventory (see Section 8.1.1 – parameter $V_{j,i|BSL}$) to identify the relative number of trees per hectare potentially available for harvest by species in each stratum;
- delineate all non-harvest areas within the forest based on legally required exclusions for environmental features such as slope, swamp areas or conservation buffers;
- divide the harvestable forest into annual operating areas (referred to throughout this methodology as land parcels) using common practice;
- include a design and presentation of the forestry infrastructure to harvest, skid/haul, store and move harvested timber products from the land parcels to downstream processing or market entry points. Where the project proponent accounts for emissions from forestry infrastructure, the design and presentation must include all forest roads, skid trails and log landings that would be established under the baseline scenario as a georeferenced layer (shapefile or equivalent), and must list necessary harvest and transport machinery.
- The timber harvest plan must follow local best practice for timber harvest practices, including planning of roads, skid trails and log landings and the timber resource volume and extraction quotas defined in any legal requirements.

For the purpose of estimating the net annual changes in carbon stocks resulting from planned timber harvest in the baseline scenario a detailed planned timber harvesting schedule will be developed from the timber harvest plan, setting out details of harvest and forestry infrastructure establishment for each land parcel in the project area in terms of the following:

- the species to be harvested;
- the year (1,2,3...) in which timber harvest and/or forestry infrastructure establishment of each land parcel is scheduled to occur;
- the number of years each land parcel is in a post-harvest and/or forestry infrastructure establishment state during the project crediting period;
- the maximum and minimum diameters at breast height (DBH), at stump and at top for tree harvesting;
- the planned harvesting regime (clearfelling, specie/stratum-selective logging, area-selective logging);
- the fraction of merchantable timber volume from clearing of forest roads, skid trails and log landings that is to be processed into wood products (FV, INF, HWP). Based on this fraction, as well as forest inventory and forestry infrastructure data,

$V_{EX,INF,j,i|BSL}$ and $V_{notEX,INF,j,i|BSL}$ (see points 2 and 3 below) will be calculated.

- g) technical specifications for the categories of wood products to be harvested; and
- h) the total volumes or fractions to be harvested, broken down by categories of wood products defined as sawnwood, wood-based panels, other industrial roundwood, paper and paper board, and other.

The planned timber harvest schedule is determined ex ante to reflect the timber harvesting plan as stipulated in the legal right to harvest. The planned timber harvesting schedule will be developed for the Project Area to include all land parcels within the project boundary for the proposed IFM activity.

The output of the timber harvest plan and timber harvesting schedule must be:

The mean extracted volume of extracted merchantable timber per unit area by species in each stratum in each year ($V_{EX,j,i|BSL}$).

Where the project proponent accounts for forestry infrastructure, the mean volume of merchantable timber extracted for wood processing that is harvested during the process of forestry infrastructure establishment per unit area by species in each stratum in each year ($V_{EX,INF,j,i|BSL}$).

Where the project proponent accounts for forestry infrastructure, the mean volume of merchantable timber that is cleared during the process of forestry infrastructure establishment and NOT extracted for wood processing per unit area by species in each stratum in each year ($V_{notEX,INF,j,i|BSL}$).

The planned timber harvesting schedule will be submitted by the project proponent as part of the project documents.

Serial number of strata	Area (ha)	Tree species	Source
1	4,440.05	Broad-Leaved tree	Timber harvest plan issued by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team. The Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute,
2	2,736.96	Chinese Fir	
3	2,169.71	Pinus massoniana	
Total	9,346.72ha		

- The timber harvest and management plan describes the harvest of timber products and includes:
-

Demands	The project activity																
a) reference the forest volume inventory (see Section 8.1.1 – parameter $V_{j,i BSL}$) to identify the relative number of trees per hectare potentially available for harvest by species in eachstratum;	According to the forest volume inventory, the $V_{j,i BSL}$ is listed as follows: <table><tr><th>Dominant Species</th><th>Area(ha)</th><th>Volume (m³)</th><th>$V_{j,i BSL}$ (m³/ha)</th></tr><tr><td>Broad-leaved tree</td><td>4,440.05</td><td>679,106.66</td><td>152.98</td></tr><tr><td>Chinese fir</td><td>2,736.96</td><td>316,732.24</td><td>115.72</td></tr><tr><td>Pinus massoniana</td><td>2,169.71</td><td>301,062.35</td><td>138.76</td></tr></table>	Dominant Species	Area(ha)	Volume (m³)	$V_{j,i BSL}$ (m³/ha)	Broad-leaved tree	4,440.05	679,106.66	152.98	Chinese fir	2,736.96	316,732.24	115.72	Pinus massoniana	2,169.71	301,062.35	138.76
Dominant Species	Area(ha)	Volume (m³)	$V_{j,i BSL}$ (m³/ha)														
Broad-leaved tree	4,440.05	679,106.66	152.98														
Chinese fir	2,736.96	316,732.24	115.72														
Pinus massoniana	2,169.71	301,062.35	138.76														
b) demarcate all non-harvest areas within the forest based on legally required exclusions for environmental features such as slope, swamp areas or conservation buffers;	The project area only includes commercial forests, the ecological forests are excluded from the project boundary. Therefore, the legally required exclusions for environmental features such as slope, swamp areas or conservation buffer are obviously non- harvest areas, which are also excluded from the project boundary.																
c) divide the harvestable forest into annual operating areas (referred to throughout this methodology as land parcels) using commonpractice;	Yes, the harvestable forests are listed into annual operating areas using clear felling. The timber harvest plan is announced by Huanjiang Maonan Autonomous County Forestry Bureau in 2015 is a long-term plan of 5 years.																
d) include a design and presentation of the forestry infrastructure to harvest, skid/haul, store and move harvested timber products from the land parcels to downstream processing or market entry points. Where the project proponent accounts for emissions from forestry infrastructure, the design and presentation must include all forest roads, skidtrails and log landings that would be established under the baseline scenario as a georeferenced layer (shapefile or equivalent), and must list necessary harvest and transportmachinery.	Because the emission from forestry infrastructure is hard to calculate, and if it is accounted in the baseline scenario, the total emission reduction will be greater. Considering the cost effectiveness and conservative, the project proponent didn't account for emission from forestry infrastructure.																

e) the timber harvest plan must follow local best practice for timber harvest practices, including planning of roads, skidtrails and log landings-and the timber resource volume and extraction quotas defined in any legal requirements.	The timber harvest plan has followed local best practice for timber harvest practices. The planning of roads, skidtrails and log landings meet the related national regulations and standard. The timber resource volume and extraction quota is defined according to timber harvest plan, which comply with the legal requirements.
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- The timber harvest schedule :

Demands	The project activity
a) the species to be harvested;	The species within the project area are Broad-leaved tree (e.g. Castanopsis hystrix, Oak, Schima Wallichii, Acacia, Other soft Broad-leaved tree, etc), Chinese fir and Pinus massoniana
b) the year (1,2,3...) in which timber harvest and/or forestry infrastructure establishment of each land parcel is scheduled to occur;	The harvest plan has demonstrated the year in which timber harvest is scheduled to occur. According to the timber harvest plan, there are 199 wood depots would be built, 41 in 2016, 34 in 2017, 34 in 2018, 45 in 2019, 45 in 2020, considering of the shape of the logging area, the location of the logging subcompartment, the terrain, and the existing road.
c) the number of years each land parcel is in a post-harvest and/or forestry infrastructure establishment state during the project crediting period;	According to the timber harvest plan, the land parcel would be regenerated after timber harvest occurred, the post-harvest state during the project crediting period would be not more than a year.
d) the maximum and minimum diameters at breast height (DBH), at stump and at top for tree harvesting;	In baseline scenario, the maximum diameters at DBH were 45cm and the minimum were 6cm. The maximum diameters at stump were 50cm and the minimum were 8cm. The maximum diameters at top were 10m and the minimum were 1.5m.
e) the planned harvesting regime (clearfelling, specie/stratum-selective logging, area-selective logging);	The planned harvesting regime is clear felling for the project.

f) the fraction of merchantable timber volume from clearing of forest roads, skidtrails and log landings that is to be processed into wood products ($F_{V,INF,HWP}$). Based on this fraction, as well as forest inventory and forestry infrastructure data, $V_{EX,INF,j,i BSL}$ and $V_{notEX,INF,j,i BSL}$ (see points 2 and 3 below) will be calculated.	The fraction of merchantable timber volume from clearing of forest roads, skidtrails and log landings that is to be processed into wood products is very small and hard to calculate precisely, so we didn't take the $V_{EX,INF,j,i BSL}$ and $V_{notEX,INF,j,i BSL}$ into account for calculate the baseline scenario emission. As this is conservative for emission reduction of the project, so it is reasonable.
g) technical specifications for the categories of wood products to be harvested; and	Sawnwood The product produced by cutting logs with vertical and horizontal sawing. Generally called sawnwood. Sawnwood products are mainly plank, square, sleepers and so on. They wouldbe determined by the requirements of the customers
h) the total volumes or fractions to be harvested, broken down by categories of wood products defined as sawnwood, wood-based panels, other industrial roundwood, paper and paper board, and other.	The total volume to be harvested is 1,296,901.25 m ³ . The wood product of the project is only sawnwood, there is no others such as wood- based panels, other industrial roundwood, paper and paper board, etc.

●

3.4.3 Stratification

- 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. The details of the subcompartments (e.g. area, age, species, stock volume and location) are shown in the Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County taken by Guangxi Zhuang Autonomous Region forestry survey and design Institute, as appendix submitted to DOE.
- 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. The purpose of strata is to improve accuracy and reduce the sampling cost. The strata is usually based on the tree species, age and canopy density, but it does not mean all these factors should be considered for all projects, more strata means more workload and cost. For this project, the factor of species for strata could reduce the variation within the same stratum and reach the accuracy level of 90% under certain degree of freedom. So the strata are reasonable and feasible.
- Table 2 shows the 3 strata specified based on the tree species.

Table 2: Tree strata

Serial number of strata	Area (ha)	Tree species	Source
1	4,440.05	Broad-Leaved tree	The Forest Resources Planning and Design Survey Report of Huanjiang Maonan Autonomous County made by Guangxi Zhuang Autonomous Region Forestry Survey and Design Institute.
2	2,736.96	Chinese Fir	
3	2,169.71	Pinus massoniana	
Total	9,346.72ha		

●

3.5 Additionality

- According to VM0010 version 1.3, the additionality of the project is demonstrated using the VCS “Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities” version 3.0.
- The following four steps are applied for the project:

3.5.1 Step 1: Identification of alternative land use scenarios to the AFOLU project activity;

Sub-step 1a: Identify credible alternative land use scenarios to the proposed VCS AFOLU project activity

- a) Identify realistic and credible land-use scenarios that would have occurred on the land within the proposed project boundary in the absence of the AFOLU project activity under the VCS.

The scenarios should be feasible for the project area taking into account relevant national and/or sectoral policies and circumstances, such as historical land uses, practices and economic trends.

The identified land use scenarios shall at least include:

- Continuation of the pre-project land use as the timber harvest plan as analysed in section 4.4;
- Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project.
- If applicable, activities similar to the proposed project activity on at least part of the land within the project boundary of the proposed VCS AFOLU project at a rate resulting from:
 - Legal requirements; or
 - Extrapolate similar activities in the geographical area under similar socioeconomic and ecological conditions to the proposed VCS AFOLU project activity which cover a period began a decade earlier than the project start date.

For (iii), the lands within the project boundary of the proposed VCS AFOLU project are all with the same legal requirements and are existed as forests more than ten years prior to the project start date. So (iii) is not applicable.

Pre-project land use scenario is the timber forest which is the common practice in China, it is feasible for the project area taking into account Forest Law of People's Republic of China. And there is no land within the project boundary performed being registered as the VCS AFOLU project.

- b) All identified land use scenarios must be credible. All land-uses within the boundary of the proposed VCS AFOLU project that are currently existing or that existed at some time in the period beginning ten years prior to the project start date but no longer exist, may be deemed realistic and credible. For all other land use scenarios, credibility shall be justified. The justification shall include elements of spatial planning information (if applicable) or legal requirements and may include assessment of economic feasibility of the proposed land use scenario.

The (i) and (ii) identified land-use scenarios that would have occurred on the land within the proposed project boundary in the absence of the AFOLU project activity under the VCS are realistic and credible, as all land-uses within the boundary of the project activity that existed in the period beginning ten years prior to the project start date but no longer exist. Therefore, it is deemed realistic and credible.

- c) **Outcome of Sub-step 1a:** List of credible alternative land use scenarios that could have occurred on the land within the project boundary of the VCS AFOLU project.

The identified land use scenarios include the two below:

- i) Continuation of the pre-project land use as the timber harvest plan as analysed in section 3.4;
- ii) Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project.

Sub-step 1b: Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations

The scenarios are feasible for the project area taking into account Forest Law of People's Republic of China. Therefore, the 2 identified realistic and credible alternative land used scenarios that could have occurred on the land within the project boundary of the VCS AFOLU project are listed below. The identified land use scenarios include the two below:

- i) Continuation of the pre-project land use as the timber harvest plan as analysed in section 3.4;
- ii) Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project.

Sub-step 1c. Selection of the baseline scenario:

The baseline methodology that would use this tool shall provide for a stepwise approach justifying the selection and determination of the most plausible baseline scenario.

The identified land use scenarios include the two below:

- i) Continuation of the pre-project land use as the timber harvest plan as analysed in section 3.4;
- ii) Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project.

3.5.2 Step 2: Investment analysis to determine that the proposed project activity is not the most economically or financially attractive of the identified land use scenarios; or

- This section will determine whether the proposed project activity, without the revenue from the sale of GHG credits is economically or financially less attractive than at least one of the other land use scenarios. To conduct the investment analysis, use the following sections.

Sub-step 2a: Determine appropriate analysis method

- Determine whether to apply simple cost analysis, investment comparison analysis or benchmark analysis. If the VCS AFOLU project generates no financial or economic benefits other than VCS related income, then apply the simple cost analysis (Option I). Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Note, that Options I, II and III are mutually exclusive hence, only one of them can be applied.
- According to the tool, Option I is not applicable for the proposed project since the project will generate other financial and economic benefits (e.g. income from tending and managing instead of commercial harvest) other than VCS related income.
- The bench mark analysis is not applicable for the proposed project since there is neither practical nor public available standard benchmark for forest industry within the project area.
- Therefore, the project will use the investment comparison analysis (Option II) since the 2 alternatives identified in step 1 both have cost and benefit separately.

Sub-step 2b: Option II. Apply investment comparison analysis

- As the PP should compare to determine which one is more economic attractive in the 2 scenarios identified in step 1, NPV will be used as the financial indicator to calculate the discounting in 20 years for decision-making context.

Sub-step 2c: Calculation and comparison of financial indicators (only applicable to options II and III): NPV

- a) Calculate the suitable financial indicator for the proposed VCS AFOLU project without the financial benefits from the VCS for the 2 alternatives identified in step 1. Include all relevant costs and revenues, and, as appropriate, non-market cost and benefits in the case of public investors.

Basic Parameters					
Series	Item	Unit	Baseline value	Project value	Data source
Revenue					
1	Broad-leaved tree Price	RMB/m ³	900	0	Historical Records of Agreements and Sales Receipts
2	Chinese fir Price	RMB/m ³		0	
3	Pinus massoniana Price	RMB/m ³		0	

4	Other timber product from tending and managing instead of commercial harvest	RMB/m ³	300	300	
Extracted Volume					
1	Broad-leaved tree	m ³	679,106.66	0	Timber Harvest Plan
2	Chinese fir	m ³	316,732.24	0	
3	Pinus massoniana	m ³	301,062.35	0	
4	Other timber product from tending and managing instead of commercial harvest	m ³ /year	9346.79	9346.79	
5	Total Extracted Volume	m ³	1,296,901.25	0	
6	Total Area	Mu	140201.80	140201.80	
Cost					
1	A/R cost	RMB/Mu	300	0	Historical Records of Agreements and Sales Receipts
2	Harvest cost	RMB/m ³	180	0	
3	Management Fee	RMB/Mu	120	120	
4	Additional maintenance cost for protected forest	RMB/Mu/working day	0	0.1	

- b) Present the investment analysis in a transparent manner and provide all the relevant assumptions in the VCS AFOLU projectdescription.

The NPV before and after the conversion of logged to protected forest is shown in the table below. The NPV under the scenario of logging is ¥19,090*10⁴RMB with the discount rate of 8%.

However, the NPV under the scenario of protected forest is ¥ -17,206*10⁴ RMB with the discount rate of 8%, which is lower than the scenario of logging. Therefore, the NPV under the scenario of protected forest is obviously not financially attractive compared to the scenario of logging. By taking into account the VCU's revenue, the NPV under the scenario of protected forest is increased to be ¥ -16,114*10⁴RMB. With revenue from VCS at the assumed price level, the project would be more financially attractive. Table 3 shows the comparison of the NPV between project and baseline scenario.

Table 3: Comparison of NPV at different scenarios

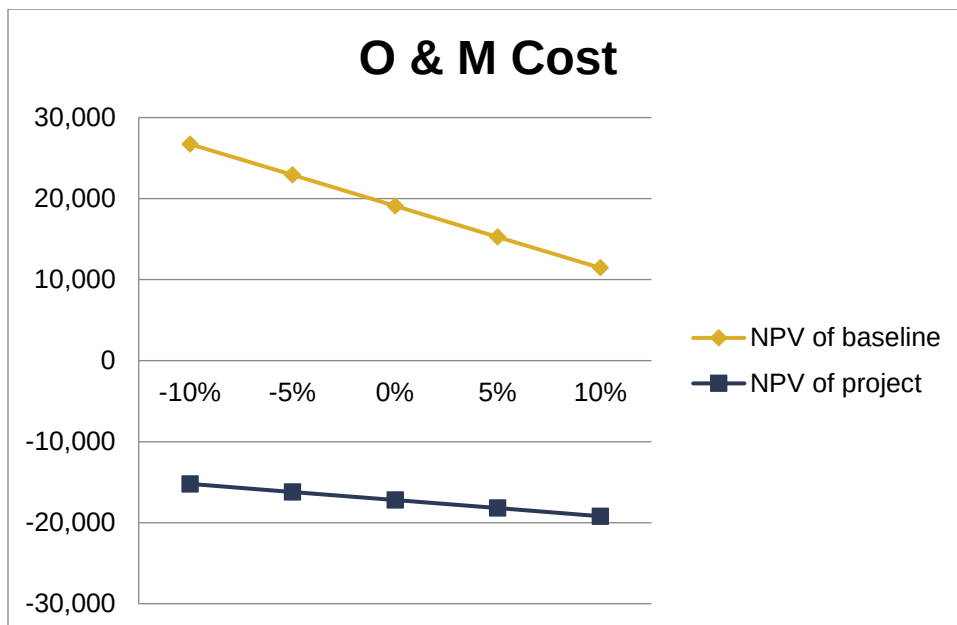
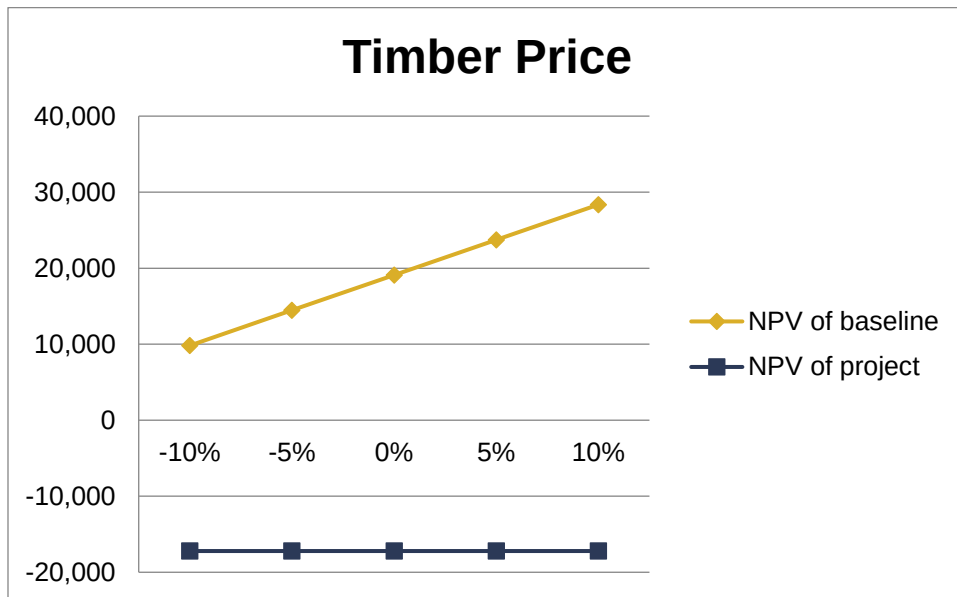
	NPV (10 ⁴ RMB)
Scenario of Logging	¥19,090
Scenario of protected	¥ -17,206

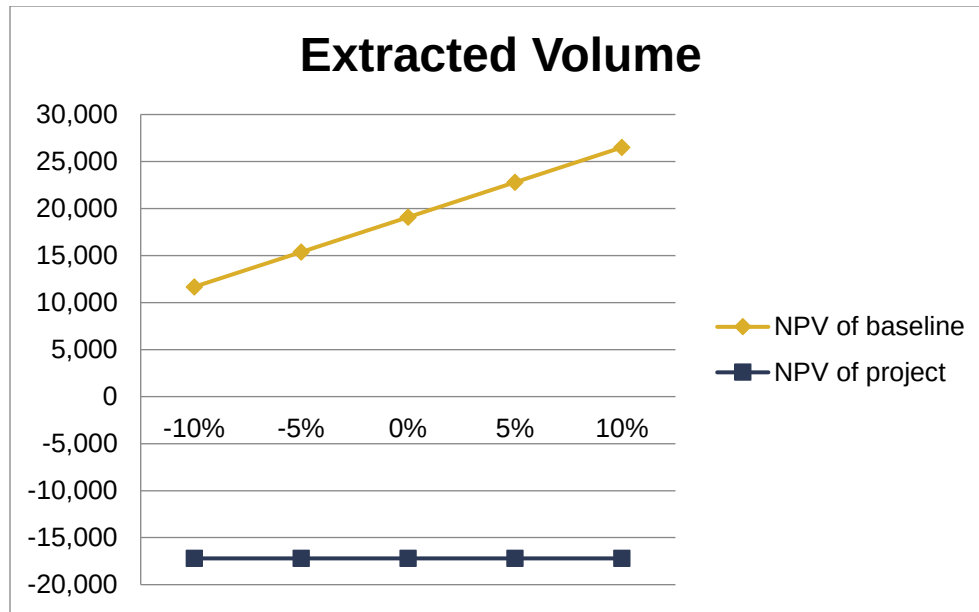
Sub-step 2d: Sensitivity analysis

- The objective of the sensitivity analysis is to show whether the conclusion regarding the financial attractiveness is robust to reasonable variations in the critical assumptions. The investment analysis provides a valid argument in favour of additionality only if it consistently supports (for a realistic range of assumptions) the conclusion that the proposed VCS AFOLU project without the financial benefits from the VCS is unlikely to be financially attractive.
- For the project, the key parameters of Price of the trees, the O&M cost, and the extracted volume will be taken into account of the sensitivity analysis. Results of the 3 parameters are shown in the table 4 and figure 2 below:
- Table 4: NPV comparison sensitivity analysis of the project

Key parameters	NPV of baseline scenario (10 ⁴ RMB)					NPV of project scenario (10 ⁴ RMB)				
	-10%	-5%	0%	5%	10%	-10%	-5%	0%	5%	10%
Price of the trees	9,821	14,455	19,090	23,724	28,358	-17,206	-17,206	-17,206	-17,206	-17,206
O&M cost	26,725	22,907	19,090	15,272	11,454	-15,210	-16,208	-17,206	-18,204	-19,202

Volume of the extracted trees	11,675	15,382	19,090	22,797	26,505	-	-	-	-	-
						17,206	17,206	17,206	17,206	17,206





- By referring to the Figures above, the NPV under protected scenario will not exceed the baseline scenario if the price, the O&M cost and the extracted volume varies within $\pm 10\%$.
- In the baseline scenario, the project receives revenue from both the commercial harvest and timber products derived from tending and managing. The latter covers a very small fraction. Under the project scenario, all the commercial harvest has been cancelled and only tending and managing is allowed, the only revenue of the project scenario is the very little income from the selling of the timber products from tending and managing, which remains the same amounts as the baseline scenario. It is obvious that the revenue of the project is only a small part of the baseline scenario, which would not be influenced by the variation of the timber price and extracted volume. On the other hand, the cost in the project scenario will increase due to the more cost on tending and maintenance. Therefore, it is impossible for the NPV of the project scenario to reach to the baseline scenario no matter how the two parameters vary.
- In order to show the opportunity of the NPV under protected scenario exceeding the baseline scenario is very little, the analysis of critical assumption is conducted as below. That is, for the three parameters, to what extent, the NPV of the project scenario can reach to that of the baseline scenario.

Parameters	Range Extent (When the NPV of the project scenario reached to the baseline scenario)
Timber price	1,318.3%
O&M cost	-181.85%
Extracted Volume	1,318.3%

-

1) Timber price

- It is assumed that only when the timber product price for tending and managing increased 1,318.39%, the nominal NPV of the project scenario could reach to $19,090 \times 10^4 \text{RMB}$. Since the timber price for

the project scenario and the baseline scenario remains the same. Therefore, the project scenario will not become equal to the baseline scenario.

2) O&M cost

- The NPV of the Project will reach to $19,090 \times 10^4$ RMB if the O&M cost reduced by 181.85%, and it is obvious that when the O&M cost reduced by 100%, it would become zero, that is impossible to occur for the normal project operating, not even to mention the decrease of 181.85%. In fact, the cost of labor index has increased recently according to the data of National Bureau of Statistics of China¹⁵.

3) Extracted Volume

- It is assumed that only when the extracted volume for tending and managing increased 1,318.39%, the nominal NPV of the project scenario could reach to $19,090 \times 10^4$ RMB. As the extracted volume of the project is determined in the timber production plan issued by the forestry authority based on the forest survey, it is also impossible to increase 1,318.39%. Therefore, it is impossible for the NPV of the project scenario to reach to the baseline scenario within the crediting period.
- Therefore, the result of the sensitivity analysis confirms that the project is financially unattractive.
- According to the tool, if after the sensitivity analysis it is concluded that the proposed VCS AFOLU project without the financial benefits from the VCS is unlikely to be financially most attractive (Option II and Option III), then proceed directly to Step 4 (Common practice analysis).

3.5.3 Step 3. Barrieranalysis

- Not applicable.

3.5.4 Step 4. Common practiceanalysis

- According to the “Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities” (version 3.0). “Similar activities are defined as that which are of similar scale, take place in a comparable environment, inter alia, with respect to the regulatory framework and are undertaken in the relevant geographical area, subject to further guidance by the underlying methodology”. China has a vast territory, the development policies and economic environment for projects in each province of China are not same. The investment climate varies considerably from province to province depending on the local conditions. The Project is located in Guangxi Zhuang Autonomous Region. However, the geographic and geomorphic conditions are totally different in the whole province. Therefore, only activities in Guangxi Zhuang Autonomous Region are included in the analysis.
- By searching the VCS, CDM websites and so on, we found that Guangxi Jinxiu IFM (Conversion of logged to Protected Forest Project in Guangxi Zhuang Autonomous Region has been under validation¹⁶. And

¹⁵<http://data.stats.gov.cn/easyquery.htm?cn=B01&zb=A0602&sj=2017B>

¹⁶ <https://registry.terra.org/app/search/VCS>

there is no similar project without applying the VCS, CDM¹⁷ or other voluntary emission reduction project.¹⁸

- Therefore, according to the analysis above, the similar activities which haven't applied for the VCS are not common practice in Hechi City. So the proposed project is additional.

3.6 Methodology Deviations

- N/A
-

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

- Calculation of baseline emissions for all land parcels under both the historical and common practice baseline scenarios requires the application of the equations presented in Sections 8.1.1 to Section 8.1.6 of the methodology.
- Baseline projections are calculated ex-ante and are not adjusted through-out the project lifetime.
- According to the methodology, Section 8.1.1 serves to calculate carbon stocks in commercial timber volumes. Next, baseline emissions are estimated based on the calculation of deadwood (logging slash) generated in the process of timber harvest and establishment of forestry infrastructure (Section 8.1.2), the emissions resulting from production and subsequent retirement of wood products derived from timber harvesting (including timber harvesting from the establishment of forestry infrastructure (Section 8.1.3), the combustion of fossil fuels in forestry machinery including mechanized felling, skidding / forwarding /hauling, loading and transporting inside the project area, and processing (Section 8.1.5), minus the rates of forest regrowth post- timber harvest (Section 8.1.6).
- The following table lists the baseline emissions modelled by the methodology:

Included in modelling
1. Emission from wood product conversion
2. Decomposition of deadwood from harvested trees
3. Emissions from wood product retirement
4. Stock change due to regrowth following timber harvest

¹⁷<http://cdm.unfccc.int/>

¹⁸<http://cdm.ccchina.org.cn/ccer.aspx>

5. Decomposition of trees incidentally killed during tree felling Where project proponent accounts for forest infrastructure:
6. Decomposition of trees killed through skid trail creation
7. Decomposition of trees killed through road construction Optional (as omission is conservative)
8. Emissions from fossil fuels burned in baseline harvesting practices. Conservatively excluded from modeling
9. Emissions through subsequent forest re-entry

- The options of 5 to 9 are hard to calculate and tiny in baseline scenario, so we exclude those from baseline emissions modelling considered of cost. As emission is conservative so it is reasonable to exclude those from baseline emissions modelling.
- Baseline commercial timber volumes must be derived for development of the timber harvest plan and for ex-post accounting of emissions resulting from natural forest disturbance.
- The equations below calculate the total emissions across the project crediting period for each emission source. Total emissions are averaged across the crediting period to give annual emissions and are multiplied by t^* , time elapsed since the start of project activity. EX-post, t^* is updated so baseline projections are available for each proposed future verification date.
- Data for input into these carbon stock change calculations for the baseline scenario shall be established from the same data used to create the timber harvest plan.
- According to VM0010 version 1.3, the baseline emissions are calculated in the sections below:

4.1.1 Calculation of carbon stocks in commercial timber volumes

- This section calculates $C_{HB,j,i|BSL}$, the mean carbon stock in total harvested biomass in $tC\text{-ha}^{-1}$ and $C_{EX,j,i|BSL}$, the mean carbon stock in extracted timber (merchantable timber that leaves the forest) in $tC\text{-ha}^{-1}$.
- The pre-existing forest inventory data are used for this purpose provided that the pre-existing data:
 - a) represents the project strata;
 - b) is not more than 10 years old.
- These inventory data used the method of sample plot inventory. These data were carried out through field surveys which were finished at the end of 2015 by who is qualified, experienced for the forestry investigation. The project involves 3 strata and 1,306 subcompartments. For each stratum, mean volume is estimated from sample plot size of 0.04 ha and at least 1 sample plot will be selected in 1 subcompartment within the project area using standard forest inventory assessment methods, which satisfies the number of sample plots required by the Tool for Calculation of the Number of Sample Plots for Measurements within A/R CDM Project Activities (version 02.1.0) as stated in section 5.3.5.
- The estimate of merchantable volume for each species j at the sample plot level will be calculated as:

$$V_{j,i,sp} = \sum_{l=1}^L V_{l,j,i,sp} \quad (1)$$

Where:

$V_{j,i,sp}$	merchantable volume for species j in stratum i in sample plot sp, m^3 ;
$V_{l,j,i,sp}$	merchantable volume for tree l of species j in stratum i in sample plot sp, m^3 ;
l	1, 2, 3 ...L sequence of individual trees in sampleplot;
i	1, 2, 3 ...Mstrata;
sp	1, 2, 3 ...SP sample plots;and
j	1, 2, 3 ...J treespecies.

- Therefore, the merchantable volume per unit area of species j in stratum i will be calculated as the mean merchantable volume in all sample plots in stratum i :

$$V_{j,i|BSL} = \frac{1}{SP} * \sum_{sp=1}^{SP} \frac{V_{j,i,sp}}{A_{sp}} \quad (2)$$

Where:

$V_{j,i BSL}$	mean merchantable volume per unit area of species j in stratum i in the baseline scenario, $m^3 \cdot ha^{-1}$;
$V_{j,i,sp}$	merchantable volume for species j in stratum i in sample plot sp ; m^3 ;
A_{sp}	area of sample plot sp , ha;
i	1, 2, 3 ...M strata;
sp	1, 2, 3 ...SP sample plots; and
j	1, 2, 3 ...J tree species.

- Therefore, the carbon stock of timber harvested per unit area for species j in stratum i will be calculated from this mean volume of extracted timber:

$$C_{HB,j,i|BSL} = V_{EX,j,i|BSL} * BCEF_R * C_j \quad (3)$$

Where:

$C_{HB,j,i BSL}$	mean carbon stock of harvested biomass per unit area for species j in stratum i, tC ha ⁻¹ ;
$V_{EX,j,i BSL}$	mean volume of extracted timber per unit area for species j in stratum i, m ³ ha ⁻¹ ;
$BCEF_R$	biomass conversion and expansion factor applicable to wood removals in the project area, t.d.m m ⁻³ ;
CF_j	carbon fraction of biomass for species j, tC t d.m ⁻¹ ;
i	1, 2, 3 ...M strata; and
j	1, 2, 3 ...J tree species.

- Not all of the harvested biomass leaves the forest because the timber harvested has two components: 1) wood removed to market (extracted timber) and, 2) wood remaining in the forest as a result of harvest.
- Therefore, the mean carbon stock of extracted timber per unit area for species j in stratum i will be calculated from the mean volume of extracted timber multiplied by density and carbon fractions:

$$C_{EX,j,i|BSL} = V_{EX,j,i|BSL} * D_j * CF_j \quad (4)$$

Where:

$C_{EX,j,i BSL}$	mean carbon stock of extracted timber per unit area for species j in stratum i; tC ha ⁻¹ ;
$V_{EX,j,i BSL}$	mean volume of extracted timber per unit area for species j in stratum i, m ³ ha ⁻¹ ;
D_j	basic wood density of species j; t d.m. m ⁻³ ;
CF_j	carbon fraction of biomass for species j, tC t d.m ⁻¹ ;
i	1, 2, 3 ...M strata; and
j	1, 2, 3 ...J tree species.

4.1.2 Calculation of dead wood (logging slash) generated in the process of timber harvest

- This section calculates $\Delta C_{DWSLASH,i,p|BSL}$, the change in carbon stock in dead wood resulting from timber harvest in stratum i in land parcel p , using $C_{EX,j,i|BSL}$ and $C_{HB,j,i|BSL}$ as calculated in section 4.1.1.
- The simplifying assumption is made that dead wood created during timber harvest is emitted in the year of harvest.
- Therefore, the change in carbon stock in the dead wood pool in stratum i in land parcel p will be calculated as the difference between the total carbon stock of the harvested biomass and the carbon stock of the extracted timber:

$$\Delta C_{DWSLASH,i,p|BSL} = [\sum_{j=1}^J (C_{HB,j,i|BSL} - C_{EX,j,i|BSL})] \quad (5)$$

Where:

$\Delta C_{DWSLASH,i,p BSL}$	change in carbon stock of dead wood as logging slash resulting from timber harvest per unit area in stratum i in land parcel p , in tCh^{-1} ;
$C_{HB,j,i BSL}$	mean carbon stock of harvested biomass per unit area for species j in stratum i , tCh^{-1} ;
$C_{EX,j,i BSL}$	mean carbon stock of extracted timber per unit area for species j in stratum i , tCh^{-1} ;
i	1, 2, 3 ...M strata; and
j	1, 2, 3 ...J tree species.
p	1, 2, 3 ...P land parcels.

4.1.3 Calculation of baseline carbon sequestered in woodproducts

- The carbon stock of extracted timber across species is calculated as:

$$C_{EX,i|BSL} = \sum_{j=1}^J C_{EX,j,i|BSL} \quad (6)$$

Where:

$C_{EX,i BSL}$	change in carbon stock of extracted wood products resulting from timber harvest per unit area in stratum i in land parcel p , tCh^{-1} ;
$C_{EX,j,i BSL}$	mean carbon stock of extracted timber per unit area for species j in stratum i , tCh^{-1} ;
i	1, 2, 3 ...M strata; and
j	1, 2, 3 ...J tree species.

- In accordance with the VCS AFOLU Requirements, the amount of carbon stored in wood products that would decay within 3 years after harvest (ie, the Wood Waste (WW) and the ShortLived Fraction (SLF)), are assumed to be emitted at the time of harvest.
- Wood products that are retired between 3 and 100 years after harvest (ie, the Additional Oxidised Fraction, OF), must be accounted according to a 20 years linear decay function. This decay function is applied when the net greenhouse gas emissions/removals are calculated on an annual basis in equations 9 and 10.
- All other wood product pools are considered to permanently store carbon.
- Therefore, the carbon stock of extracted timber that is immediately emitted to the atmosphere at the time of harvest is calculated as

$$C_{WPO,i|BSL} = \sum_k C_{EX,i,k|BSL} * (WW_k + SLF_k) \quad (7)$$

Where:

$C_{WPO,i BSL}$	carbon stock of extracted timber from stratum i that is assumed to be emitted immediately at the time of harvest, in tC _{ha} ⁻¹ ;
$C_{EX,i BSL}$	mean carbon stock of extracted timber per unit area in stratum i, for wood product type k, tC _{ha} ⁻¹ ;
WW_k	fraction of biomass carbon from wood waste that is assumed to be emitted to the atmosphere immediately at the time of harvest for wood product k, dimensionless;
SLF_k	fraction of biomass carbon from the short lived wood product pool that is assumed to that be emitted to the atmosphere immediately at the time of harvest for wood product k, dimensionless;
i	1, 2, 3 ...M strata; and
k	Wood products (sawnwood, wood base products, etc).

- The amount of extracted carbon stock that is assumed to enter the wood products pool that is not immediately emitted at harvest is calculated as per equation 8 below:

$$C_{WP,i|BSL} = \sum_k C_{EX,i,k|BSL} - C_{WPO,i|BSL} \quad (8)$$

Where:

$C_{WP,i BSL}$	carbon stock of extracted timber from stratum i that is assumed to enter the wood products pool that is not immediately emitted at the time of harvest ,in tC _{ha} ⁻¹ ;
$C_{EX,i BSL}$	mean carbon stock of extracted timber per unit area in stratum i, for wood product type k, tC _{ha} ⁻¹ ;

$C_{WP0,i BSL}$	carbon stock of extracted timber from stratum i that is assumed to be emitted immediately at the time of harvest, in tC $\cdot$ ha $^{-1}$;
i	1, 2, 3 ...M strata; and
k	Wood products (sawnwood, wood base products, etc).

- Therefore, the carbon stock of wood products assumed to be retired between 3 -100 years following harvest is calculated as:

$$C_{WP100,i|BSL} = C_{WP,i|BSL} * OF_k \quad (9)$$

Where :

$C_{WP100,i,p BSL}$	Amount of carbon stored in wood products that are assumed to be retired between 3-100 years after harvest from stratum i in land parcel p, tC $\cdot$ ha $^{-1}$;
$C_{WP,i BSL}$	carbon stock of extracted timber from stratum i that is assumed to enter the wood products pool that is not immediately emitted at the time of harvest,in tC $\cdot$ ha $^{-1}$;
OF_k	fraction of biomass carbon for wood product type k that is assumed to be emitted to the atmosphere between 3 and 100 years of timber harvest, dimensionless; and
i	1, 2, 3 ...M strata

4.1.4 Change in carbon stocks due to forest regrowth afterharvest

- The carbon sequestration in the baseline resulting from forest regrowth after timber harvest up to year t is equal to the forest regrowth rate of each stratum.
- Therefore, carbon sequestration resulting from forest regrowth after timber harvest is calculated as:

$$C_{RG,i,p|BSL} = \sum_i RGR_i \quad (10)$$

Where:

$C_{RG,i,p BSL}$	carbon sequestration resulting from forest regrowth after timber harvest in stratum i in land parcel p, tC ha $^{-1}$ yr $^{-1}$;
RGR_i	regrowth rate of forest post timber harvest for stratum i, tC $\cdot$ ha $^{-1}$ yr $^{-1}$;
i	1, 2, 3 ...M strata

4.1.5 Calculation of baseline scenario greenhouse gas emissions from changein carbonstocks

- 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 (ie, years since harvest in the baseline).
- 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:

$$\Delta C_{NET|BSL(1)} = \sum_{i,p} A_{1,i,p} * \sum_{i=1}^M (C_{DWSLASH,i,p|BSL}/10) + C_{WPO,i,p|BSL} + (C_{WP100,i,p|BSL}/20) \quad (11)$$

Where:

$\Delta C_{NET BSL(1)}$	net change in carbon stock across all parcels in the baseline scenario in the first year since harvest in the baseline scenario, in tC;
$\Delta C_{DWSLASH,i,p BSL}$	change in carbon stock of dead wood as logging slash resulting from timber harvest per unit area in stratum i in land parcel p, in tC ha ⁻¹ ;
$\Delta C_{WPO,i,p BSL}$	change in carbon stock resulting from wood product conversion and retirement from stratum i in land parcel p, that is assumed to be emitted in the first year of harvest in the baseline tC ha ⁻¹ ;
$\Delta C_{WP100,i,p BSL}$	Amount of carbon stored in wood products that is assumed to be retired between 3-100 years after harvest from stratum i in land parcel p, tC ha ⁻¹ ;
$A_{1,i,p}$	the area of stratum i in land parcel p that was harvested 1 year ago, ha;
i	1, 2, 3 ...M strata; and
p	1, 2, 3 ...P land parcels harvested within the project crediting period.

-
- 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:

$$\Delta C_{NET|BSL(2-10)} = \sum_{i,p} A_{2-10,i,p} * \sum_{i=1}^M (C_{DWSLASH,i,p|BSL}/10) + (C_{WP100,i,p|BSL}/20) \quad (12)$$

Where:

$\Delta C_{NET BSL(2-10)}$	net change in carbon stock across all parcels in the baseline scenario in years 2-10 since harvest in the baseline scenario, in tC;
$\Delta C_{DWSLASH,i,p BSL}$	change in carbon stock of dead wood as logging slash resulting from timber harvest per unit area in stratum i in land parcel p, in tC ha ⁻¹ ;

$\Delta C_{WP100,i,p\backslash BSL}$	Amount of carbon stored in wood products that is assumed to be retired between 3-100 years after harvest from stratum i in land parcel p, tC ha ⁻¹ ;
$A_{2-10,i,p}$	the area of stratum i in land parcel p that was harvested 2 and 10 years ago, ha;
i	1, 2, 3 ...M strata; and
p	1, 2, 3 ...P land parcels harvested within the project crediting period.

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

$$\Delta C_{NET|BSL(11-20)} = \sum_{i,p} A_{11-20,i,p} * \sum_{i=1}^M (C_{WP100,i,p\backslash BSL} / 20) \quad (13)$$

Where:

$\Delta C_{NET BSL(11-20)}$	net change in carbon stock across all parcels in the baseline scenario in years 11-20 since the start of the project activity, in tC;
$\Delta C_{WP100,i,p\backslash BSL}$	Amount of carbon stored in wood products that is assumed to be retired between 3-100 years after harvest from stratum i in land parcel p, tCha ⁻¹ ;
$A_{11-20,i,p}$	the area of stratum i in land parcel p that was harvested 11 and 20 years ago, ha;
i	1, 2, 3 ...M strata; and
p	1, 2, 3 ...P land parcels harvested within the project crediting period.

-
- The net change (sequestration) in carbon stock due to forest regrowth across all parcels in all years since harvest in the baseline scenario is calculated according to equation 14 below. Note that there will be no more emissions quantified from decay of logging slash or wood products.

$$\Delta C_{NET|BSL(1+)} = \sum_i A_{t*} * \sum_{i=1}^M (-\Delta C_{RG,i,p\backslash BSL}) \quad (14)$$

Where:

$\Delta C_{NET BSL(1+)}$	net change in carbon stock due to forest regrowth in all parcels that have been harvested in the baseline scenario, in tC;
$\Delta C_{RG,i,p\backslash BSL}$	carbon sequestration resulting from forest regrowth after timber harvest in stratum i in land parcel p, tC ha ⁻¹

A_{t^*}	Cumulative area harvested until time t^* , ha;
i	1, 2, 3 ...M strata; and
p	1, 2, 3 ...P land parcels harvested within the project crediting period.

●

- 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:

$$\Delta C_{NET|BSL,t^*} = \sum_{p=1}^P \Delta C_{NET|BSL(1)} + \Delta C_{NET|BSL(2-10)} + \Delta C_{NET|BSL(11-20)} + \Delta C_{NET|BSL(1+)} \quad (15)$$

Where:

$\Delta C_{NET BSL,t^*}$	net change in carbon stock across all parcels in the baseline scenario in the year t^* since the start of the project activity, in tC;
$\Delta C_{NET BSL(1)}$	net change in carbon stock in the baseline scenario for all parcels p that are within 1 year of harvest in the baseline scenario, in tC;
$\Delta C_{NET BSL(2-10)}$	net change in carbon stock in the baseline scenario for all parcels p , that were harvested between 2-10 years ago in the baseline scenario, in tC;
$\Delta C_{NET BSL(11-20)}$	net change in carbon stock in the baseline scenario in parcel p , that were harvested between 11-20 years ago in the baseline scenario, in tC;
$\Delta C_{NET BSL(1+)}$	net change in carbon stock due to forest regrowth in the baseline scenario for all parcels p that have been harvested in the baseline scenario, in tC;
t^*	time elapsed since the start of the project, in years; and
p	1, 2, 3 ...P land parcels harvested within the project crediting period.

- The net carbon stock change in the baseline scenario must be converted to net greenhouse gas emissions and is calculated as:

$$GHG_{NET|BSL,t^*} = \Delta C_{NET|BSL,t^*} * \frac{44}{12} \quad (16)$$

Where:

$GHG_{NET BSL,t^*}$	net greenhouse gas emissions in the baseline scenario in the year t^* since the start of the project activity, tCO ₂ e;
$\Delta C_{NET BSL}$	net change in carbon stock across all parcels in the baseline scenario in the year t^* since the start of the project activity, tC; and
44/12	ratio of molecular weights of carbon dioxide and carbon, tCO ₂ -etC ⁻¹ .

4.1.6 Carbon stock of other timber product from tending and managing instead of commercial harvest in baseline scenario

- Because carbon stock of other timber product from tending and managing instead of commercial harvest in baseline scenario was same as in project scenario, they offset each other.

4.2 Project Emissions

4.2.1 Ongoing forest growth in the project scenario

- This section calculates $\Delta C_{AB,t|PRJ}$ annual carbon stock change in aboveground biomass of trees in the project scenario, in tCO₂e.

Allometry

- Select the appropriate allometric equation for forest type/group of species j (e.g. tropical humid forest or tropical dry forest) or for each species or family j (group of species) found in the inventory (hereafter referred to as species group) that converts tree dimensions from field timber inventories on sample plots to aboveground biomass of trees.

Measurements

- Only the individual trees, species and strata which were to be harvested in the baseline scenario are to be measured. Any minimum values employed in inventories are held constant for the duration of the project.

Determining Sample Plot Carbon Stocks

- The carbon stock in aboveground biomass for each individual tree of species group j in the sample plot located in stratum i will be estimated using the selected allometric equation applied to the tree dimensions resulting from section 4.2.1.2.
- Therefore, the sum of the carbon stock in each sample plot will be calculated as:

$$C_{AB,j,i,t,sp|PRJ} = \sum_{l=1}^{L_{j,i,sp,t}} f_j(X, Y \dots) * CF_j \quad (17)$$

Where:

$C_{AB,j,i,t,sp PRJ}$	carbon stock in aboveground biomass of trees of species j in plot sp in stratum i at time t in the project scenario, tC
CF_j	carbon fraction of biomass for tree group j, tC t d.m. ⁻¹ ;

$f_i(X,Y,...)$	aboveground biomass of trees based on allometric equation for species group j based on measured tree variable(s), t. d.m. tree-1;
i	1, 2, 3, ...M strata;
j	1, 2, 3 ... J tree species;
l	1, 2, 3, ... $L_{j,i,t,sp}$ sequence number of individual trees of species group j in stratum i at time t in sample plot sp;
t	0, 1, 2, 3, ...t* years elapsed since start of the project activity; and
sp	1, 2, 3 ...SP sample plots.

Determining Stratum Carbon Stocks

- The total carbon stock in the aboveground biomass of all trees present in sample plot sp in stratum i at time t, must be calculated as:

$$C_{AB,i,t,sp|PRJ} = \sum_{j=1}^J C_{AB,j,i,t,sp|PRJ} \quad (18)$$

Where:

$C_{AB,i,t,sp PRJ}$	aboveground biomass carbon stock of all trees of stratum i at time t in sample plot sp in the project scenario, tC;
$C_{AB,j,i,t,sp PRJ}$	carbon stock in aboveground biomass of trees of species j in stratum i at time t in plot sp in the project scenario,tC;
i	1, 2, 3, ...M strata;
j	1, 2, 3 ... J tree species; and
t	0, 1, 2, 3 ...t* years elapsed since the start of the project activity.

●

Determining Mean Carbon Stocks

- Therefore, the mean carbon stock in aboveground biomass for each stratum per unit area is calculated as:

●

$$C_{AB,i,t|PRJ} = \frac{1}{SP} * \sum_{sp=1}^{SP} \left(\frac{C_{AB,i,t,sp|PRJ}}{A_{sp}} \right) \quad (19)$$

Where:

$C_{AB,i,t PRJ}$	mean aboveground biomass carbon stock of trees in stratum i at time t, tC^{-1} ;
$C_{AB,i,t,sp PRJ}$	aboveground biomass carbon stock of trees in stratum i at time t in sample plot sp, tC ;
A_{sp}	area of sample plot sp, ha;
sp	1, 2, 3 ... SP sample plots;
i	1, 2, 3 ... M strata; and
t	0, 1, 2, 3 ... t^* years elapsed since the start of the project activity.

Determining Carbon Stock Changes

- The annual carbon stock change in aboveground biomass of trees in year t is the difference in mean carbon stock in aboveground biomass between sampling events and, when expressed in tCO_2e , is calculated as:

$$\Delta C_{AB,t|PRJ} = \left(\sum_{i=1}^M (A_i * \frac{C_{AB,i,t2|PRJ} - C_{AB,i,t1|PRJ}}{T}) \right) * \frac{44}{12} \quad (20)$$

Where:

$\Delta C_{AB,t PRJ}$	annual carbon stock change in aboveground biomass of trees in year t, $tCO_2e yr^{-1}$;
$C_{AB,i,t PRJ}$	mean aboveground biomass carbon stock of trees in stratum i at time t , tC^{-1} ;
A_i	area covered by stratum i, ha;
sp	1, 2, 3 ... SP sample plots;
T	number of years between monitoring time t1 and t2 ($T=t_2 - t_1$); years;
i	1, 2, 3 ... M strata; and
t	0, 1, 2, 3 ... t^* years elapsed since the start of the project activity; and
44/12	ratio of molecular weights of carbon dioxide divided carbon, $tCO_2e tC^{-1}$.

- The carbon stock change in aboveground biomass of trees ($\Delta C_{AB,t|PRJ}$) is the output of this section and is necessary to calculate net greenhouse gas emissions in the project scenario.

4.2.2 Forest disturbance in the project scenario

- This section calculates $\Delta C_{DIST_FR,t|PRJ}$, carbon stock change due to fire disturbance in the project scenario; tCO_2-e , $\Delta C_{DIST,t|PRJ}$, carbon stock change due to non-fire natural disturbance in the project scenario; tCO_2-e

Natural disturbance

- 4.2.2.1a Natural Disturbance – Fire
- Where fires occur ex post in the project area, the area burned shall be delineated. Therefore, based on the IPCC 2006 Inventory Guidelines, estimation of greenhouse gas emissions from biomass burning shall be calculated as:

$$\Delta C_{DIST_{FR,t}|PRJ} = \sum_{i=1}^M A_{burn,i,t} * B_{i,t}|PRJ * COMF_i * G_{g,i} * 10^{-3} * GWP_{CH4} \quad (21)$$

Where:

$\Delta C_{DIST_{FR,t} PRJ}$	net greenhouse gas emissions resulting from fire disturbance in year t , tCO ₂ ^e ;
$A_{burn,i,t}$	area burnt for stratum i at time t , ha;
$B_{i,t} PRJ$	average aboveground biomass stock present in the project scenario but absent in the baseline scenario before burning stratum i , time t ; t d. m. ha ⁻¹ ;
$COMF_i$	combustion factor for stratum i , dimensionless;
$G_{g,i}$	emission factor for stratum i for methane, g kg ⁻¹ dry matter burnt;
GWP_{CH4}	global warming potential for CH ₄ (IPCC default: 21), tCO ₂ ^e tCH ₄ ⁻¹ ;
i	1, 2, 3 ... M strata; and
t	1, 2, 3, ... t^* years elapsed since the start of the IFM project activity.

-
- The average aboveground biomass stock present in the project scenario but absent in the baseline scenario before burning for a particular stratum shall be calculated as:

$$B_{i,t}|PRJ = \sum_{j=1}^J \{V_{EX,i,j}|BSL * BCEF_R\} \quad (22)$$

Where:

$B_{i,t} PRJ$	average aboveground biomass stock present in the project scenario but absent in the baseline before burning for stratum i , time t , t d. m.ha ⁻¹ ;
$V_{EX,j,i} BSL$	mean volume of extracted timber per unit area for species j in stratum i , m ³ ·ha ⁻¹ ;
$BCEF_R$	biomass conversion and expansion factor applicable to wood removals in the project area, t.d.m m ⁻³ ;
i	1, 2, 3 ... M strata;
j	1, 2, 3 ... J tree species;and

t 1, 2, 3, ... t^* years elapsed since the start of the IFM project activity.

- 4.2.2.1b Natural Disturbance – Non-Fire
- There are no fire disturbance occurred in the project area, therefore, $\Delta C_{DIST_FR,t|PRJ}=0$
- Where non-fire natural disturbances occur ex post in the project area, the area disturbed must be delineated.

$$\Delta C_{DIST,t|PRJ} = \sum_{i=1}^M \left(A_{dist,i,t} * \sum_{j=1}^J \{C_{AB,j,i|BSL}\} \right) * \frac{44}{12} \quad (23)$$

Where:

$\Delta C_{DIST,t PRJ}$	net greenhouse gas emissions resulting from non-fire natural disturbance in year t , tCO ₂ e;
$A_{dist,i,t}$	area disturbed for stratum i at time t , ha;
$C_{AB,i BSL}$	carbon stock in aboveground biomass per unit area in stratum i , tC·ha ⁻¹ ;
$44/12$	ratio of molecular weights of carbon dioxide and carbon, tCO ₂ e tC ⁻¹ ;
i	1, 2, 3 ... M strata;
j	1, 2, 3 ... J tree species; and
t	1, 2, 3, ... t^* years elapsed since the start of the IFM project activity.

- There are non-fire natural disturbances occur ex post in the project area, therefore, $\Delta C_{DIST,t|PRJ}=0$

Illegal logging

- 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:

- $$\Delta C_{DIST-IL,t|PRJ} = \sum_{i=1}^M \left(A_{DIST-IL,i} * \frac{C_{DIST-IL,i,t|PRJ}}{AP_i} \right) \quad (24)$$

Where:

$\Delta C_{DIST-IL,t PRJ}$	net carbon stock changes as a result of illegal logging at time t , tCO ₂ e;
$A_{DIST-IL,i}$	area potentially impacted by illegal logging in stratum i , ha;
$C_{DIST-IL,i,t PRJ}$	biomass carbon of trees cut and removed through illegal logging in stratum i at time t , tCO ₂ e;
AP_i	total area of illegal logging sample plots in stratum i , ha;

- i 1, 2, 3 ...M strata in the in the project case; and
- t 1, 2, 3, ... t years elapsed since the projected start of the project activity.

- There are no degradation occurred indicated in Participatory Rural Appraisal (PRA) and limited sampling, therefore, $\Delta C_{DIST_IL,t|PRJ} = 0$

4.2.3 Net greenhouse gas emissions in the project scenario

- This section calculates $\Delta C_{NET,t|PRJ}$, the net greenhouse gas emissions in the project scenario in year t, in tCO₂e.
- The net greenhouse gas emissions in the project scenario are the sum of net greenhouse gas emissions resulting from fire and non-fire forest disturbance, plus any carbon stock changes that occur as a result of illegal logging, minus the annual carbon stock change in the aboveground biomass of trees due to forest growth.
- Therefore, net greenhouse gas emissions in the project scenario in year t, is calculated as:

$$\Delta C_{NET,t|PRJ} = (\Delta C_{DIST-FR,t|PRJ} + \Delta C_{DIST,t|PRJ} + \Delta C_{DIST-IL,t|PRJ}) - \Delta C_{AB,t|PRJ} \quad (25)$$

Where:

$\Delta C_{NET,t PRJ}$	net greenhouse gas emissions in the project scenario in year t, tCO ₂ e
$\Delta C_{DIST-FR,t PRJ}$	net greenhouse gas emissions resulting from fire disturbance in year t, tCO ₂ e
$\Delta C_{DIST,t PRJ}$	net greenhouse gas emissions resulting from non-fire natural disturbance in year t, tCO ₂ e
$\Delta C_{DIST-IL,t PRJ}$	Net carbon stock changes as a result of illegal logging at time t, tCO ₂ e
$\Delta C_{AB,t PRJ}$	annual carbon stock change in aboveground biomass of trees in year t, tCO ₂ e/yr ⁻¹ ; and
t	1, 2, 3, t* years elapsed since start of the project activity.

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

$$GHG_{NET|PRJ} = \sum_{t=1}^{t^*} \Delta C_{NET,t|PRJ} \quad (26)$$

Where:

$GHG_{NET PRJ}$	net greenhouse gas emissions in the project scenario since the start of the project activity, tCO ₂ e
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$\Delta C_{NET,t PRJ}$	net greenhouse gas emissions in the project scenario in year t, tCO ₂ e; and
t	1, 2, 3, t* years elapsed since start of the project activity.

4.2.4 Carbon stock of other timber product from tending and managing instead of commercial harvest in project scenario

- Because carbon stock of other timber product from tending and managing instead of commercial harvest in project scenario was same as in baseline scenario, they offset each other.

4.3 Leakage

4.3.1 Activity shifting leakage

- The project does not involve in the activity shifting leakage. 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.
- Therefore, for the project activity, the PP have no right to harvest more in other parcels outside the project activity and the project does not involve in the activity shifting leakage.

4.3.2 Market leakage

- Leakage due to market effects is equal to the net emissions from planned timber harvest activities in the baseline scenario multiplied by an appropriate leakage factor:

$$GHG_{LK|LtPF} = LF_{ME} * GHG_{NET|BSL,t*} \quad (27)$$

Where:

$GHG_{LK LtPF}$	is total market leakage as a result of IFM LtPF activities, tCO ₂ e;
LF_{ME}	is the dimensionless leakage factor for market-effects calculations;
$GHG_{NET BSL,t*}$	net greenhouse gas emissions in the baseline scenario in the year t* since the start of the project activity, tCO ₂ e.

- The leakage factor is determined by considering where in the country logging will be increased as a result of the decreased timber supply caused by the project.
- Leakage factor calculation

- The leakage factor is determined by 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.
- Therefore,
- $LF_{ME} = 0$
- If it can be demonstrated that no market-effects leakage will occur within national boundaries, that is if no new concessions are being assigned AND annual extracted volumes cannot be increased within existing national concessions AND illegal logging is absent (or de minimis) in the host country.
- The amount of leakage is determined by where in the country's forest estate harvesting would likely be displaced. If harvesting is displaced to forests where a lower proportion of forest biomass is merchantable material from harvestable species than in the project area, then in order to extract a given volume higher emissions should be expected as more trees will need to be cut to supply the same volume.
- In contrast if a higher proportion of the total biomass of commercial species is merchantable in the displacement forest than in the project forests, then a smaller area would have to be harvested and lower emissions would result.
- 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}).
- The following deduction factors (LF_{ME}) shall be used:

PML_{FT} is equal ($\pm 15\%$) to PMP_i

$LF_{ME} = 0.4$

PML_{FT} is $> 15\%$ less than PMP_i

$LF_{ME} = 0.7$

PML_{FT} is $> 15\%$ greater than PMP_i

$LF_{ME} = 0.2$

Where:

PML_{FT} : mean merchantable biomass as a proportion of total aboveground tree biomass for each forest type, %;

PMP_i : merchantable biomass as a proportion of total aboveground tree biomass for stratum i within the project boundaries, %; and

LF_{ME} : Leakage factor for market-effects calculations; dimensionless.

- Where sufficient variation exists in PMP_i relative to PML_{FT} that multiple values of LF_{ME} result, then an area weighted final value for LF_{ME} shall be calculated. The area of stratum i as a proportion of the total project area shall be multiplied by LF_{ME} . All values are then summed to arrive at the area weighted final value of LF_{ME} .
- For the project,
- According to the 13th Five-year Forest Harvest Limit issued by State Council (Guohan [2016] No.32)¹⁹, the total harvest volume limit from 2016 to 2020 is $25,403.6 \times 10^4 \text{ m}^3$ each year, and the total harvest volume limit of Guangxi Zhuang Autonomous Region from 2016 to 2020 is $4,460.9 \times 10^4 \text{ m}^3$ each year. The harvest volume when the proposed project absent is 25.94×10^4 per year m^3 from 2016 to 2020, extremely low compared to provincial level and far below the country level in the same time period. The harvest volume in the baseline is only 0.58% of the total harvest volume in Guangxi Zhuang Autonomous Region and 0.10% 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 Guangxi Zhuang Autonomous Region. Therefore, the project activities will not lead to change in the balance of supply and market demand. The stability of timber prices can also prove this view. According to GUANGXI STATISTICAL YEARBOOK 2020²⁰, the timber price index from 2016 to 2018 was 101.6%, 101.5% and 102.3% (of preceding year) respectively, indicating the price is stable with slightly increasing.
- China's annual extracted volumes are allocated by the country to the provinces and then to the counties and cities which 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 heavy. Regulations of the People's Republic of China on forestry law Article 38 and Article 39 clearly stipulate 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

¹⁹http://www.gov.cn/zhengce/content/2016-02/16/content_5041486.htm

²⁰ <http://tjj.gxzf.gov.cn//tjsj/tjnj/material/tjnj20200415/2020/zk/indexch.htm>

in Table 3 to the net change in carbon stock associated with the activity that reduces timber harvest to determine market leakage”.

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- Guangxi Huanjiang 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 Guangxi Zhuang Autonomous Region which is located in the subtropical area with subtropical 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 set 3 stratum based on the tree species which are Broad-leaved Tree, Chinese Fir and Pinus Massoniana for the project.
- Hence, the calculation is below, in the base year:
- $PMP_{\text{Broad-leaved trees}} = 124791^{21} \text{ m}^3 / 9,914,981^{22} \text{ m}^3 = 1.26\%$
- $PMP_{\text{Chinese Fir}} = 62676^{23} \text{ m}^3 / 5891553^{24} \text{ m}^3 = 1.06\%$
- $PMP_{\text{Pinus Massoniana}} = 62716^{25} \text{ m}^3 / 1774702^{26} \text{ m}^3 = 3.53\%$ ²⁷
-

²¹ Extracted volume of broad-leaved trees in the base year in the project, data sourced from the Timber Harvest Plan.

²² From the data of the Forest Resources Planning and Design Survey Report made by Guangxi Zhuang Autonomous Region Forestry Survey and Design Institute.

²³ Extracted volume of Chinese fir in the base year in the project, data sourced from the Timber Harvest Plan.

²⁴ From the data of the Forest Resources Planning and Design Survey Report made by Guangxi Zhuang Autonomous Region Forestry Survey and Design Institute.

²⁵ Extracted volume of pinus massoniana in the base year in the project, data sourced from the Timber Harvest Plan.

²⁶ From the data of the Forest Resources Planning and Design Survey Report made by Guangxi Zhuang Autonomous Region Forestry Survey and Design Institute.

²⁷ From ER calculation sheet

- $PML_{\text{Subtropical humid forest}} = 4460.9^{28} \times 10^4 \text{ m}^3 / 22272.16^{29} \times 10^4 \text{ m}^3 = 20.03\%^{30}$
- $PML_{\text{Subtropical humid forest}}$ is $1491.4\%^{31}$ greater than $PMP_{\text{Broad-leaved trees}}$
- $PML_{\text{Subtropical humid forest}}$ is $1782.7\%^{32}$ greater than $PMP_{\text{Chinese Fir}}$
- $PML_{\text{Subtropical humid forest}}$ is $466.8\%^{33}$ greater than $PMP_{\text{Pinus Massoniana}}$
- PMP data was calculated by the data sourced from the Timber Harvest Plan and the data of the Forest Resources Planning and Design Survey Report. And PML data comes from 2016 China Forestry Statistical Yearbook³⁴. 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. Therefore, whether according to VCS Standard table 3 or VCS Methodology, the market leakage discount factor is 20%.
In summary, $LF_{ME} = 0.2$
- 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.

4.4 Estimated Net GHG Emission Reductions and Removals

4.4.1 Net Project Greenhouse Gas Emission Reductions

- According to VM0010 version 1.3, the Net Project Greenhouse Gas Emission Reductions are calculated as:

$$GHG_{CREDITS|LTPF,t^*} = GHG_{NET|BSL,t^*} - GHG_{NET|PR,t^*} - GHG_{LK|LTPF,t^*} \quad (28)$$

Where:

$GHG_{CREDITS|LTPF,t^*}$ project greenhouse gas credits associated with the implementation of improved forest management (IFM) activities in the year t^* since the start of the project activity, in the project scenario, tCO_2e

²⁸ From the 13th Five-year Forest Harvest Limit

²⁹ From 2016 China Forestry Statistical Yearbook

³⁰ <https://navi.cnki.net/knavi/yearbooks/YCSRT/detail>

³¹ From ER calculation sheet

³² From ER calculation sheet

³³ From ER calculation sheet

³⁴ <https://navi.cnki.net/knavi/yearbooks/YCSRT/detail>

$GHG_{NET BSL,t^*}$	net greenhouse gas emissions in the baseline scenario in the year t^* since the start of the project activity, tCO_2e
$GHG_{NET PRJ,t^*}$	net greenhouse gas emissions in the project scenario in the year t^* since the start of the project activity, tCO_2e ; and
$GHG_{LK LtPF,t^*}$	total greenhouse gas emissions due to leakage arising outside the project boundary as a result of the implementation of improved forest management (IFM) activities in the year t^* since the start of the project activity, in the project scenario, tCO_2e

4.4.2 Project Verified Carbon Units

- The number of Verified Carbon Units (VCUs) for each year t in the project crediting period is the greenhouse gas emission reductions and removals adjusted for uncertainty and risk.

4.4.2.1 Adjustment 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 LtPF project is calculated as:

$$U_{TOTAL|LtPF} = \sqrt{U_{PRJ}^2 + U_{BSL}^2} \quad (29)$$

Where:

$U_{total|LtPF}$ total uncertainty for LtPF Project, dimensionless;

$U_{ PRJ}$	total uncertainty for the improved forest management activities in the project scenario, dimensionless; and
$U_{ BSL}$	total uncertainty for the baseline scenario, dimensionless.

- Project proponents must justify the selection of uncertainty propagation in the VCS-PD. According to section 4.4.4 of the VCS-PD, PP have justified that no deduction will result for uncertainty.
- If $U_{total|LtPF} \leq 0.15$ 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:

$$Credits_{total|LtPF} = GHG_{credits|LtPF} \cdot (1 - U_{total|LtPF}) \quad (30)$$

Where:

$Credits_{total LtPF}$	total greenhouse gas credits adjusted for uncertainty for each year t in the project crediting period;
$GHG_{credits LtPF}$	project greenhouse gas credits associated with the implementation of improved forest management (IFM) activities in the project scenario, $tCO_2e/year^{-1}$; and
$U_{total LtPF}$	total uncertainty for LtPF Project, dimensionless.

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4.4.2.2 Calculation of verified carbonunits

- The amount of greenhouse gas credits estimated at section 4.4.2.1 above shall be adjusted to account for risk.
- They shall be subject to deductions based on application of the most recent version of the VCS Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination.
- Therefore, the amount of VCU's that can be issued at time $t=t_2$ (the date of verification) for monitoring period $T=t_2-t_1$, is calculated as:

$$VCU_{net|LtPF} = (Credits_{total,t2|LtPF} - Credits_{total,t1|LtPF}) - Bu_{|IFM-VCS} \quad (31)$$

Where:

$VCU_{net LtPF}$	number of verified carbon units; dimensionless;
$Credits_{total,t1 LtPF}$	net anthropogenic greenhouse gas removals by sinks, as estimated for $t^*=t_1$ in tCO_2e ;

$Credits_{total,t2 L_tPF}$	net anthropogenic greenhouse gas removals by sinks, as estimated for $t^*=t_2$ in tCO_2e ; and
$Bu_{ IFM-VCS}$	total number of credits withheld in VCS buffer account

4.4.3 The calculation process

4.4.3.1 The calculation process of baseline emission

- Therefore, for the calculation of $GHG_{NET|BSL}$, according to section 4.1, the process is shown below:

Table 5: Basic Parameter of Baseline Emission

Basic Parameter		Value	Data Unit	Data Source
Total Area of Stratum	Broad-leaved tree	4,440.05	ha	Timber harvest plan taken by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team
	Chinese fir	2,736.96	ha	
	Pinus massoniana	2,169.71	ha	
$V_{j,l,BSL}$	Broad-leaved tree	152.95	m ³ /ha	
	Chinese fir	115.72	m ³ /ha	
	Pinus massoniana	138.76	m ³ /ha	
$V_{EX,j,i BSL,y}$	Refer to ER sheet		m ³ /ha	"Land Use Change and Forestry GHG Inventory(2013)" of "Second National Information Notification on China Climate Change"
$A_{i,p,y}$	Refer to ER sheet		ha	
D_j	Broad-leaved tree	0.482	t d.m. m ⁻³	
	Chinese fir	0.307	t d.m. m ⁻³	
	Pinus massoniana	0.380	t d.m. m ⁻³	
BEF	Broad-leaved tree	1.514	dimensionless	
	Chinese fir	1.634	dimensionless	
	Pinus massoniana	1.472	dimensionless	
$BCEFR$	Broad-leaved tree	0.730	t d.m. m ⁻³	calculated by BEF and D_j
	Chinese fir	0.502	t d.m. m ⁻³	
	Pinus massoniana	0.559	t d.m. m ⁻³	
CF_j	Broad-leaved tree/ Chinese	0.5	tC t d.m. ⁻¹	

	fir/ Pinus massoniana			VM0010 version 1.3
WW	Broad-leaved tree/ Chinese fir/ Pinus massoniana	24%	kg kg ⁻¹	
SLF	Broad-leaved tree/ Chinese fir/ Pinus massoniana	0.12	kg kg ⁻¹	
OF	Broad-leaved tree/ Chinese fir/ Pinus massoniana	0.86	kg kg ⁻¹	
Regrowth rate in baseline scenario	Broad-leaved tree	2.06	m ³ .ha ⁻¹ .yr ⁻¹	IPCC Guidelines for National Greenhouse Gas Inventories (2006), Table4.9
	Chinese fir	2.99	m ³ .ha ⁻¹ .yr ⁻¹	
	Pinus massoniana	2.68	m ³ .ha ⁻¹ .yr ⁻¹	

Table 6: The baseline emission during the crediting period

Year	ΔCNET BSL (tCO ₂ e)	GHGNET BSL(tCO ₂ e)
01/07/2016-30/06/2017	22,203	81,411
01/07/2017-30/06/2018	24,300	89,099
01/07/2018-30/06/2019	30,024	110,088
01/07/2019-30/06/2020	35,356	129,639
01/07/2020-30/06/2021	35,102	128,707
01/07/2021-30/06/2022	14,601	53,537
01/07/2022-30/06/2023	14,601	53,537
01/07/2023-30/06/2024	14,601	53,537
01/07/2024-30/06/2025	14,601	53,537
01/07/2025-30/06/2026	14,601	53,537
01/07/2026-30/06/2027	11,948	43,808
01/07/2027-30/06/2028	9,360	34,322
01/07/2028-30/06/2029	6,436	23,600
01/07/2029-30/06/2030	3,227	11,832
01/07/2030-30/06/2031	406	1,489
01/07/2031-30/06/2032	406	1,489
01/07/2032-30/06/2033	406	1,489
01/07/2033-30/06/2034	406	1,489
01/07/2034-30/06/2035	406	1,489

01/07/2035-30/06/2036	406	1,489
Total	253,398	929,126
Average	12,669	46,456

4.4.3.2 The calculation of project emission

- The ex-ante estimation of project emission of the proposed project is as follows:

Table 7: Basic Parameter of Project Emission

Basic Parameter		Value	Data Unit	Data Source
Total Area of Stratum	Broad-leaved tree	4,440.05	ha	Timber harvest plan issued by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team
	Chinese fir	2,736.96	ha	
	Pinus massoniana	2,169.71	ha	
D _j	Broad-leaved tree	0.482	t d.m. m ⁻³	"Land Use Change and Forestry GHG Inventory(2013)" of "Second National Information Notification on China Climate Change"
	Chinese fir	0.307	t d.m. m ⁻³	
	Pinus massoniana	0.380	t d.m. m ⁻³	
BEF	Broad-leaved tree	1.514	dimensionless	
	Chinese fir	1.634	dimensionless	
	Pinus massoniana	1.472	dimensionless	
BCEFR	Broad-leaved tree	0.730	t d.m. m ⁻³	calculated by BEF and D
	Chinese fir	0.502	t d.m. m ⁻³	
	Pinus massoniana	0.559	t d.m. m ⁻³	
CF _j	Broad-leaved tree/ Chinese fir/ Pinus massoniana	0.5	tC t d.m. ⁻¹	VM0010 version 1.3
Ongoing growth rate in project scenario	Broad-leaved tree	3.55	m ³ .ha ⁻¹ .yr ⁻¹	The statement on the growth volume in Huanjiang issued by Huanjiang Maonan Autonomous County Forestry Bureau
	Chinese fir	4.96	m ³ .ha ⁻¹ .yr ⁻¹	
	Pinus massoniana	5.73	m ³ .ha ⁻¹ .yr ⁻¹	

- Because the forest inventory conducted by Huanjiang Maonan Autonomous County Forestry Bureau didn't include the detail of each tree in the subcompartment, so we didn't use

allometric equation to estimate the project emission here. And according to the methodology, it is acceptable to use pre-existing forest inventory data for this purpose, so we use the ongoing growth rate to predict the project emission.

- On-going growth rate is certified by Huanjiang Maonan Autonomous County Forestry Bureau. based on the historical data, so the emissions of each year during the whole crediting period are same. In the monitoring report, the actual stock volume will be measured, then re-calculate the emission within the crediting period.

Table 8: The project emission during the crediting period

Year	$\Delta C_{AB,t PRJ}$	$\Delta C_{DIST_FR,t PRJ}$	$\Delta C_{DIST,t PRJ}$	$\Delta C_{DIST_IL,t PRJ}$	$\Delta C_{NET,t PRJ}$
01/07/2016-30/06/2017	46,321	0	0	0	-46,321
01/07/2017-30/06/2018	46,321	0	0	0	-46,321
01/07/2018-30/06/2019	46,321	0	0	0	-46,321
01/07/2019-30/06/2020	46,321	0	0	0	-46,321
01/07/2020-30/06/2021	46,321	0	0	0	-46,321
01/07/2021-30/06/2022	46,321	0	0	0	-46,321
01/07/2022-30/06/2023	46,321	0	0	0	-46,321
01/07/2023-30/06/2024	46,321	0	0	0	-46,321
01/07/2024-30/06/2025	46,321	0	0	0	-46,321
01/07/2025-30/06/2026	46,321	0	0	0	-46,321
01/07/2026-30/06/2027	46,321	0	0	0	-46,321
01/07/2027-30/06/2028	46,321	0	0	0	-46,321
01/07/2028-30/06/2029	46,321	0	0	0	-46,321
01/07/2029-30/06/2030	46,321	0	0	0	-46,321
01/07/2030-30/06/2031	46,321	0	0	0	-46,321
01/07/2031-30/06/2032	46,321	0	0	0	-46,321

01/07/2032- 30/06/2033	46,321	0	0	0	-46,321
01/07/2033- 30/06/2034	46,321	0	0	0	-46,321
01/07/2034- 30/06/2035	46,321	0	0	0	-46,321
01/07/2035- 30/06/2036	46,321	0	0	0	-46,321
Total	926,420	0	0	0	-926,420
Average	46,321	0	0	0	-46,321

- Forest disturbance in the project scenario:
- According to the analysis in section 4.2, $\Delta C_{DIST_FR,t|PRJ}$, $\Delta C_{DIST,t|PRJ}$ and $\Delta C_{DIST_IL,i,t|PRJ}$ are all = 0.
- Therefore,
- $GHG_{LK|LTPF} = 0$

4.4.4 Uncertainty for the baseline scenario:

- According to IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories³⁵, 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:

$$U_{total} = \frac{\sqrt{(U_1 \times E_1)^2 + (U_2 \times E_2)^2 + \dots + (U_n \times E_n)^2}}{E_1 + E_2 + \dots + E_n} \quad (32)$$

Where:

³⁵IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories, Chapter 6, Quantifying Uncertainties in Practice

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

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- 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:

$$U_{total} = \sqrt{U_1^2 + U_2^2 + \dots + U_n^2} \quad (33)$$

Where:

U_{total} is the percentage uncertainty in the product of the quantities (half the 95% confidence interval divided by the total 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 Broad-leaved tree:

Uncertainty of BCEF-Broad-leaved tree		3.02%	
Uncertainty of BEF Broad-leaved tree	2.99%	Uncertainty of D- Broad-leaved tree	0.42%
BEF		D	
Sample size	153	Sample size	189
Sample mean (BEF)	1.514	Sample mean (D)	0.443
Standard deviation	0.283	Standard deviation	0.013
Average error	0.023	Average error	0.001
Confidence level	0.95	Confidence level	0.95
Degree of freedom	152	Degree of freedom	188
Two-sided Student's t-value	1.976	Two-sided Student's t-value	1.973
Allowable error	0.045	Allowable error	0.002
Lower confidence limit	1.469	Lower confidence limit	0.441
Upper confidence limit	1.559	Upper confidence limit	0.445
Confidence interval	0.045	Confidence interval	0.002

- For Chinese fir:

Uncertainty of BCEF-Chinese fir		2.21%	
Uncertainty of BEF- Chinese fir	2.06%	Uncertainty of D- Chinese fir	0.80%
BEF		D	
Sample size	71	Sample size	54
Sample mean (BEF)	1.323	Sample mean (D)	0.307
Standard deviation	0.115	Standard deviation	0.009
Average error	0.014	Average error	0.001
Confidence level	0.95	Confidence level	0.95
Degree of freedom	70	Degree of freedom	53
Two-sided Student's t-value	1.994	Two-sided Student's t-value	2.006
Allowable error	0.027	Allowable error	0.002
Lower confidence limit	1.296	Lower confidence limit	0.305
Upper confidence limit	1.350	Upper confidence limit	0.309
Confidence interval	0.027	Confidence interval	0.002

- For Pinus massoniana:

Uncertainty of BCEF-Pinus massoniana		2.38%	
Uncertainty of BEF- Pinus massoniana	1.82%	Uncertainty of D- Pinus massoniana	1.54%
BEF		D	
Sample size	68	Sample size	43
Sample mean (BEF)	1.305	Sample mean (D)	0.380
Standard deviation	0.098	Standard deviation	0.019

Average error	0.012	Average error	0.003
Confidence level	0.95	Confidence level	0.95
Degree of freedom	67	Degree of freedom	42
Two-sided Student's t-value	1.996	Two-sided Student's t-value	2.018
Allowable error	0.024	Allowable error	0.006
Lower confidence limit	1.281	Lower confidence limit	0.374
Upper confidence limit	1.329	Upper confidence limit	0.386
Confidence interval	0.024	Confidence interval	0.006

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 (32):

Uncertainty of carbon stock- Broad-leaved tree	4.25%	Uncertainty of carbon stock- Chinese fir	5.32%	Uncertainty of carbon stock- Pinus massoniana	4.24%
Uncertainty of volume- Broad-leaved tree	2.99%	Uncertainty of volume – Chinese fir	4.84%	Uncertainty of volume – Pinus massoniana	3.51%
carbon stock- Broad-leaved tree	274488.36	carbon stock- Chinese fir	115567.36	carbon stock- Pinus massoniana	109849.82
Area(ha)	4440.05	Area(ha)	2736.96	Area(ha)	2169.71
Sample size	646	Sample size	310	Sample size	349
Sample mean (m ³ /ha)	152.95	Sample mean (m ³ /ha)	115.72	Sample mean (m ³ /ha)	138.76
Standard deviation	59.40	Standard deviation	50.30	Standard deviation	46.50
Average error	2.34	Average error	2.86	Average error	2.49
Confidence level	0.95	Confidence level	0.95	Confidence level	0.95
Degree of freedom	645	Degree of freedom	309	Degree of freedom	348
Two-sided Student's t-value	1.96	Two-sided Student's t-value	1.96	Two-sided Student's t-value	1.96
Allowable error	4.58	Allowable error	5.60	Allowable error	4.88
Lower confidence limit	148.37	Lower confidence limit	110.12	Lower confidence limit	133.88
Upper confidence limit	157.53	Upper confidence limit	121.32	Upper confidence limit	143.64
Confidence interval	4.58	Confidence interval	5.60	Confidence interval	4.88

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 $U_{\text{Broad-leaved tree|BSL}}$, $U_{\text{Chinese fir|BSL}}$ and $U_{\text{Pinus massoniana BSL}}$ are shown below:

Stratum	Parameter	Area(Ha)	$V_{EX,j,i BSL}$ (m ³ /ha)	BEF	D(tdm/m ³)	$BCEFR$ (tdm/m ³)	CFj(tc/tdm)	$C_{HB,j,i BSL}$ (tC /ha)	$C_{EX,j,i BSL}$ (tC 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
								$U_g = \sqrt{U_b^2 + U_e^2}$	$U_h = \sqrt{U_b^2 + U_d^2}$	$U_i = \frac{\sqrt{(E_g * U_g)^2 + (E_h * U_h)^2}}{(E_g + E_h)}$
Broad-leaved tree	E	4440.05	152.95	1.514	0.482	0.730	0.5	55.81	36.86	18.95
	U	0.00%	2.99%	2.99%	0.42%	3.02%		4.25%	3.02%	2.83%
Chinese fir	E	2736.96	115.72	1.634	0.307	0.502	0.5	29.03	17.76	11.26
	U	0.00%	4.84%	2.06%	0.80%	2.21%		5.32%	4.90%	3.79%
Pinus massoniana	E	2169.71	138.76	1.472	0.380	0.559	0.5	38.81	26.36	12.44
	U	0.00%	3.51%	1.82%	1.54%	2.38%		4.24%	3.83%	2.96%

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Stratum	Parameter	WW _k	SLF _k	$C_{WP,0 BSL}$ (tc/ha)	$C_{WP,i BSL}$ (tc/ha)	OF _k	$\Delta C_{WP,100 BSL}$ (tc/ha)	A _{i,p} (ha)	$\Delta C_{NET BSL(1)}(tC)$
		j	k	l=h*(j+k)	m=h-l	n	o=m*n	p	q=(i/10+l+o/20)*p
				$U_l = U_h$	$U_m = \frac{\sqrt{(E_h * U_h)^2 + (E_l * U_l)^2}}{(E_h + E_l)}$		$U_o = U_m$	$U_p = 0$	$U_m = \frac{\sqrt{(E_l * U_l)^2 + (E_i * U_i)^2 + (E_o * U_o)^2}}{(E_l + E_i + E_o)}$
Broad-leaved tree	E	24%	0.12	13.27	23.59	0.86	20.29	4440.05	71835.71
	U			3.02%	2.36%		2.36%	0.00%	1.57%
Chinese fir	E	24%	0.12	6.39	11.37	0.86	9.78	2736.96	21923.01
	U			4.90%	3.83%		3.83%	0.00%	2.36%
Pinus massoniana	E	24%	0.12	9.49	16.87	0.86	14.51	2169.71	24866.79
	U			3.83%	3.00%		3.00%	0.00%	1.86%

Stratum	Parameter	$\Delta C_{NET BSL(2-10)}(tC)$	$\Delta C_{NET BSL(11-20)}(tC)$	regrowth rate (m ³ /ha/yr)	$\Delta C_{NET BSL,t^*}(tC)$	$\Delta C_{NET, i, P BSL}$
		$r=(i/10+o/20)*p$	$s=o/20*p$	t	$v=e*f*p*t$	$w=q+r+s-v$
		$U_i = \frac{\sqrt{(E_i * U_i)^2 + (E_o * U_o)^2}}{(E_i + E_o)}$	$U_s = U_o$	$U_t = 10\%$	$U_v = \sqrt{U_s^2 + U_t^2}$	$U_w = \frac{\sqrt{(E_q * U_q)^2 + (E_r * U_r)^2 + (E_s * U_s)^2 + (E_v * U_v)^2}}{(E_q + E_r + E_s + E_v)}$
Broad-leaved tree	E	116247.77	35931.73	2.06	56536.19	167479.02
	U	1.83%	2.36%	10.00%	10.44%	2.29%
Chinese fir	E	39783.46	10445.76	2.99	34500.32	37651.91
	U	2.70%	3.83%	10.00%	10.24%	3.52%
Pinus massoniana	E	38467.10	12491.63	2.68	27558.44	48267.08
	U	2.11%	3.00%	10.00%	10.28%	2.91%
					U_{BSL}	1.70%

●

Therefore, as there are 3 strata in the project activity, the uncertainty across combined strata is calculated with the revised equation below:

$$U_{|BSL} = \sqrt{\frac{(U_{Broad-leaved Tree|BSL} \times E_{Broad-leaved Tree|BSL})^2 + (U_{Chinese fir|BSL} \times E_{Chinese fir|BSL})^2 + (U_{Pinus massoniana|BSL} \times E_{Pinus massoniana|BSL})^2}{E_{Broad-leaved Tree|BSL} + E_{Chinese fir|BSL} + E_{Pinus massoniana|BSL}}} \quad (34)$$

After calculation, $U_{|BSL}$ is 0.92% for the baseline scenario

- After calculation, $U|_{BSL}$ is 0.92% for the baseline scenario.

●

Uncertainty for the project scenario:

Stratum	Parameter	Area(Ha)	BEF	D(tdm/m ³)	BCEFR _t (tdm/m ³)	CFj (tc/tdm)	ongoing growth rate (m3/ha/yr)	$\Delta C_{AB,t PRJ}(tCO_2)$
		a	b	c	d=b*c	e	f	$g=f*a*d*e*44/12$
							$U_i=10\%$	$U_i = \sqrt{U_d^2 + U_f^2}$
Broad-leaved tree	E	4440.05	1.514	0.482	0.730	0.5	3.55	21087.77
	U	0.00%	2.99%	0.42%	3.02%		10.00%	10.44%
Chinese fir	E	2736.96	1.634	0.307	0.502	0.5	4.96	12484.81
	U	0.00%	2.06%	0.80%	2.21%		10.00%	10.24%
Pinus massoniana	E	2169.71	1.472	38.00%	0.559	0.5	5.73	12749.38
	U	0.00%	1.82%	1.54%	2.38%		10.00%	10.28%
							U_{PRJ}	6.18%

Total uncertainty:

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

$$U_{Total|LtPF} = \sqrt{U_{PRJ}^2 + U_{BSL}^2} = \sqrt{1.70\%^2 + 6.18\%^2} = 6.41\% = 0.0641$$

- According to the methodology, if $U_{total,LtPF} \leq 0.15$ then no deduction will result for uncertainty, as $U_{total} < 0.15$, then no deduction will result from uncertainty.

4.4.5 Calculation of verified carbon units

- Leakage due to market effects is equal to the net emissions from planned timber harvest activities in the baseline scenario multiplied by an appropriate leakage factor:

$$GHG_{LK|LtPF} = LF_{ME} * GHG_{NET|BSL,t}$$

Where:

$GHG_{LK|LtPF}$ is total market leakage as a result of IFM LtPF activities, tCO₂e;

LF_{ME} is the dimensionless leakage factor for market-effects calculations;

$GHG_{NET|BSL,t^*}$

net greenhouse gas emissions in the baseline scenario in the year t^* since the start of the project activity, tCO_2e .

- According to the section 4.3.2 of the PD, $LF_{ME} = 0.2$.
- Therefore, the leakage emission detail is listed:

Year	Estimated baseline emissions or removals (tCO_2e)	Estimated leakage emissions (tCO_2e)
01/07/2016-30/06/2017	81,411	16,282
01/07/2017-30/06/2018	89,099	17,819
01/07/2018-30/06/2019	110,088	22,017
01/07/2019-30/06/2020	129,639	25,927
01/07/2020-30/06/2021	128,707	25,741
01/07/2021-30/06/2022	53,537	10,707
01/07/2022-30/06/2023	53,537	10,707
01/07/2023-30/06/2024	53,537	10,707
01/07/2024-30/06/2025	53,537	10,707
01/07/2025-30/06/2026	53,537	10,707
01/07/2026-30/06/2027	43,808	8,761
01/07/2027-30/06/2028	34,322	6,864
01/07/2028-30/06/2029	23,600	4,720
01/07/2029-30/06/2030	11,832	2,366

01/07/2030-30/06/2031	1,489	297
01/07/2031-30/06/2032	1,489	297
01/07/2032-30/06/2033	1,489	297
01/07/2033-30/06/2034	1,489	297
01/07/2034-30/06/2035	1,489	297
01/07/2035-30/06/2036	1,489	297
Total	929,126	185,814
Average	46,456	9,290

-
- Based on the analysis in NON-PERMANENCE RISK REPORT, the overall risk rating is 23, then 23% of the total emission reductions should be deducted.
- Therefore, the emission reduction detail is listed:

Year	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)	Estimated net GHG emission reductions or removals with buffer deduction (tCO ₂ e)
01/07/2016-30/06/2017	81,411	-46,321	16,282	111,450	85,816
01/07/2017-30/06/2018	89,099	-46,321	17,819	117,601	90,553
01/07/2018-30/06/2019	110,088	-46,321	22,017	134,392	103,482
01/07/2019-30/06/2020	129,639	-46,321	25,927	150,033	115,525
01/07/2020-30/06/2021	128,707	-46,321	25,741	149,287	114,950

01/07/2021-30/06/2022	53,537	-46,321	10,707	89,151	68,645
01/07/2022-30/06/2023	53,537	-46,321	10,707	89,151	68,645
01/07/2023-30/06/2024	53,537	-46,321	10,707	89,151	68,645
01/07/2024-30/06/2025	53,537	-46,321	10,707	89,151	68,645
01/07/2025-30/06/2026	53,537	-46,321	10,707	89,151	68,645
01/07/2026-30/06/2027	43,808	-46,321	8,761	81,368	62,653
01/07/2027-30/06/2028	34,322	-46,321	6,864	73,779	56,809
01/07/2028-30/06/2029	23,600	-46,321	4,720	65,201	50,205
01/07/2029-30/06/2030	11,832	-46,321	2,366	55,787	42,955
01/07/2030-30/06/2031	1,489	-46,321	297	47,513	36,585
01/07/2031-30/06/2032	1,489	-46,321	297	47,513	36,585
01/07/2032-30/06/2033	1,489	-46,321	297	47,513	36,585
01/07/2033-30/06/2034	1,489	-46,321	297	47,513	36,585
01/07/2034-30/06/2035	1,489	-46,321	297	47,513	36,585
01/07/2035-30/06/2036	1,489	-46,321	297	47,513	36,585
Total	929,126	926,420	185,814	1,669,732	1,285,683
Average	46,456	46,321	9,290	83,486	64,284

5 MONITORING

5.1 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:	Timber harvest plan issued taken by Huanjiang Maonan Autonomous County Forestry Investigation, Planning and Design Team
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_i
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Data unit:	tCtd.m. ⁻¹
Description:	Carbon fraction of dry matter for species j
Source of data:	According to VM0010 version 1.3, the default value 0.5 tCt 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:	<table border="1"> <thead> <tr> <th>Tree species</th><th>D_j</th></tr> </thead> <tbody> <tr> <td>Broad-leaved tree</td><td>0.482</td></tr> <tr> <td>Chinese fir</td><td>0.307</td></tr> <tr> <td>Pinus massoniana</td><td>0.380</td></tr> </tbody> </table>	Tree species	D _j	Broad-leaved tree	0.482	Chinese fir	0.307	Pinus massoniana	0.380
Tree species	D _j								
Broad-leaved tree	0.482								
Chinese fir	0.307								
Pinus massoniana	0.380								

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:	$f_j(X, Y...)$
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 continentalregions); 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. <i>Oecologia</i> 145: 87- 99. f) Species-, genus- and family-specific allometric equations may notalways 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). The source of data was chosen as a) National species-, genus-, family-specific.
Value applied:	As for the project tree species, there are no allometric equation applied in

	the project area, the average annual growth is adopted for the estimated calculation of carbon stock change. The average annual growth is determined as 3.55, 4.96 and 5.73 m³/ha/year for broad-leaved trees, Chinese fir and pinus massonina respectively, which is adopted from the statement by the local forest authority. During the monitoring period, the average annual growth will be monitored by the total growth divided by the length of the monitoring period.
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 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 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
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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 border="1"> <thead> <tr> <th>Tree species</th><th>BCEFR</th></tr> </thead> <tbody> <tr> <td>Broad-leaved tree</td><td>0.730</td></tr> <tr> <td>Chinese fir</td><td>0.502</td></tr> <tr> <td>Pinus massoniana</td><td>0.559</td></tr> </tbody> </table>	Tree species	BCEFR	Broad-leaved tree	0.730	Chinese fir	0.502	Pinus massoniana	0.559
Tree species	BCEFR								
Broad-leaved tree	0.730								
Chinese fir	0.502								
Pinus massoniana	0.559								
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 load (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. 1998 indicate that the proportion of extracted biomass that is oxidized (burning or decaying) from the production of commodities to be equal to 19% for developed countries, 24% for developing countries. Short-lived fraction (SLF) Winjumetal 1998 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:

	<table><tr><th rowspan="2">Wood Product Class</th><th colspan="3">OF</th></tr><tr><th>Boreal</th><th>Temperate</th><th>Tropical</th></tr><tr><td>Sawnwood</td><td>0.39</td><td>0.62</td><td>0.86</td></tr><tr><td>Woodbase panels</td><td>0.62</td><td>0.86</td><td>0.98</td></tr><tr><td>Other industrial roundwood</td><td>0.86</td><td>0.98</td><td>0.99</td></tr><tr><td>Paper and paperboard</td><td>0.39</td><td>0.62</td><td>0.99</td></tr></table>	Wood Product Class	OF			Boreal	Temperate	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
Wood Product Class	OF																							
	Boreal	Temperate	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 rowspan="3">Broad-leaved tree/ Chinese fir/ Pinus massoniana</td><td>0.86</td></tr><tr><td>SLF</td><td>0.12</td></tr><tr><td>WW</td><td>24%</td></tr></table>	Parameters	Species	Value	OF	Broad-leaved tree/ Chinese fir/ Pinus massoniana	0.86	SLF	0.12	WW	24%													
Parameters	Species	Value																						
OF	Broad-leaved tree/ Chinese fir/ Pinus massoniana	0.86																						
SLF		0.12																						
WW		24%																						
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:	According to VM0010 version 1.3, 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> <td>Broad-leaved tree</td><td>0.75</td></tr> <tr> <td>Chinese fir</td><td>0.75</td></tr> <tr> <td>Pinus massoniana</td><td>0.75</td></tr> </table>	Broad-leaved tree	0.75	Chinese fir	0.75	Pinus massoniana	0.75
Broad-leaved tree	0.75						
Chinese fir	0.75						
Pinus massoniana	0.75						

Justification of choice of data or description of measurement methods and procedures applied:	Method c is applied. The average annual regrowth is from the IPCC default values for aboveground net biomass growth in natural forests in IPCC Guidelines for National Greenhouse Gas Inventories (2006), Table 4.9
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:	Data of timber harvest plan
Value applied:	See the ER sheet
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:	$A_{1,i,p}$
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Data unit:	Ha
Description:	The area of stratum i in land parcel p that was harvested 1 year ago
Source of data:	Data of timber harvest plan
Value applied:	See the ER sheet
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:	$A_{2-10,i,p}$
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:	Data of timber harvest plan
Value applied:	See the ER sheet
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:	$A_{11-20,i,p}$
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:	Data of timber harvest plan
Value applied:	See the ER sheet
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*}
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Data unit:	Ha
Description:	Cumulative area harvested until time t^*
Source of data:	Data of timber harvest plan
Value applied:	See the ER sheet
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 s_p
Source of data:	Recording and archiving of size of sample plots, in the monitoring Manual issued by Shenzhen Huanong gardening Co., Ltd who is qualified
Value applied:	0.04
Justification of choice of data or description of measurement methods and procedures applied:	Standard procedures for plot delineation in forest timber inventory surveys is the actual selection for ex ante value
Purpose of Data	Calculation of baseline emissions
Comments:	Ex-ante the size of the plots shall be defined and recorded in the monitoring plan.

5.2 Data and Parameters Monitored

Data / Parameter:	Illegal Logging PRA Results
Data unit:	Dimensionless
Description:	N/A
Source of data:	PRA

Description of measurement methods and procedures to be applied:	The PRA must evaluate whether timber harvest may be occurring in the project area and shall consist of semi-structured interviews / questionnaires. If $\geq 10\%$ 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 applied:	Ex-ante as 0
Monitoring equipment:	Monitoring System and forest authority.
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 applied:	Ex-ante as 0
Monitoring equipment:	Monitoring System and forest authority.
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.
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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 applied:	Ex-ante as 0
Monitoring equipment:	Monitoring System and forest authority.
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 from the IPCC GPG LULUCF 2003, is recommended.
Purpose of Data	Calculation of project emissions
Calculation method:	N/A
Comments:	Ex ante estimations of areas burnt 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 applied:	Ex-ante as 0

Monitoring equipment:	Monitoring System and forest authority.
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 disturbed must be based on historic incidence of fire in the Project region

Data / Parameter:	ADIST_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 applied:	Ex-anteas0
Monitoring equipment:	Monitoring System and forest authority.
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 limited survey can be used to determine a likely depth of degradation penetration

Data / Parameter:	CDIST_IL,i,t PRJ
Data unit:	tCO ₂ e
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 (ADIST_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 applied:	Ex-ante 0
Monitoring equipment:	Monitoring System and forest authority.
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 from 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 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 applied:	Not applicable. As for the project area, illegal logging is unlikely to happen,

	the $C_{DIST_IL,i,t PRJ}$ is ex- ante zero, there is no need for the illegal logging sampling.
Monitoring equipment:	Not applicable
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 applied:	Not applicable, as the leakage factor of this project is zero, it is unnecessary to calculate PMP_i .
Monitoring equipment:	Not applicable
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:	A _i		
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.		
Value applied:	Serial number of strata	Area (ha)	Tree species
	1	4,440.05	Broad-leaved tree
	2	2,736.96	Chinese fir
	3	2,169.71	Pinus massoniana
	Total	9,346.72	
Monitoring Equipment:	Tape Measure, GPS device		
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 from the IPCC GPG LULUCF 2003, is recommended.		
Purpose of Data	For the calculation of the baseline and project emissions.		
Calculation method:	N/A		
Comments	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 delineated as a separate stratum for the purpose of monitoring the carbon stock changes.		

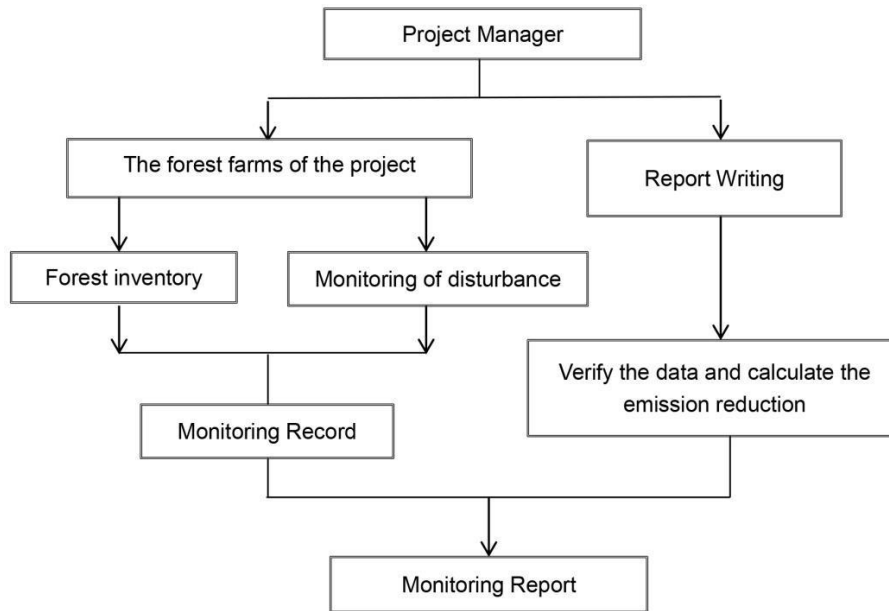
Data / Parameter:	DBH
Data unit:	cm
Description	Diameter at breast height of tree
Source of data	On site measuring on the sample plots

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:	N/A
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 from 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.

5.3 Monitoring Plan

5.3.1 Scope of monitoring and the 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.

5.3.2 General requirements for monitoring

- 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-CO₂ GHG and corresponding calculation spreadsheets;
- GIS products; and
- Copies of the measuring and monitoring reports.

5.3.3 Monitoring of project implementation

- 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.

5.3.4 Stratification

- An ex ante stratification of the project area in the project scenario is developed by project proponents through sampling in the project area according to the species.
- Sampling to adjust the number and boundaries of the strata defined ex ante where an update is required because of
 - a) unexpected disturbances occurring during the project crediting period affecting differently various parts of an originally homogeneous stratum and/or
 - b) forest management activities that are implemented in a way that affects the existing stratification in the project scenario.
- Established strata may also be merged if the reasons for their establishment have disappeared.

5.3.5 Monitoring of actual carbon stock changes

- 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
 - The sample plot will be 0.04 ha and at least 3 sample plots will be selected in 1 stratum. As the sample size should be less than 100, then the total sample plot area should be less than 4 ha, which is small than 5% of the total project area ($9,346.72 \times 5\% = 476.3$ ha).
 - So we can conclude that the area sampled will be less than 5% of the project area, which means a small sampling fraction.
 - Therefore, the following simplified equation can be used for estimating the number of sample plots according to the CDM tool:

$$n = \left(\frac{t_{VAL}}{E} \right)^2 * (\sum_i \omega_i * S_i)^2 \quad (36)$$

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
- ω_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)
- 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:

$$n_i = n * \frac{\omega_i * S_i}{\sum_i \omega_i * S_i} \quad (37)$$

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
- ω_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)
- 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 is shown in table 10 below:

Table 9: The estimation of number of sample plots required

Strata No	Stratum Name	Area (ha)	Mean tonnes C/ha	Standard Deviation (t C/ha)	Plot size (ha)	Wi	Wi* Si
Strata 1	Broad-leaved tree	4,440.05	55.81	21.7	0.04	0.48	10.4
Strata 2	Chinese fir	2,736.96	42.22	18.35	0.04	0.29	5.3
Strata 3	Pinus massoniana	2,169.71	50.63	16.97	0.04	0.23	3.9

STRATA NO.	Stratum Name	Number of Plots	
		Plot Quantity	Rounded Plot Quantity
Total Sample Size			
Strata 1	Broad-leaved tree	31.8	32
Strata 2	Chinese fir	16.3	17
Strata 3	Pinus massoniana	11.9	12
TOTAL NUMBER OF PLOTS			61

- * 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.
- Carbon stock changes over time shall be estimated by taking measurements in plots at each monitoring event. Monitoring events shall take place at intervals of 5, or preferably 3 years. Including monitoring all the parameters needed. Monitoring reports can use such extrapolated parameter values for the determination of net emissions by sources and removals resulting from the project.
- The design of the sampling regime will be determined by the number of strata and timber harvest the baseline case.

5.3.6 Conservative approach and uncertainty

- Project proponent will also apply all relevant equations for the ex-ante calculation of net anthropogenic GHG removals by sinks with care and provide transparent estimations for the parameters that are monitored during the project crediting period. These estimates shall be based on measured or existing published data where possible and project proponents should retain a conservative approach; that is, if different values for a parameter are equally plausible, a value that does not lead to over-estimation of net anthropogenic GHG removals by sinks must be selected.
- An uncertainty analysis is required for all estimates from monitoring related to change in area, change in carbon stocks and emissions for both the baseline and project case.

APPENDIX 1< GEOGRAPHICAL COORDINATES OF PROJECT >

Serial No.	Township	Village	Compartment	Subcompartment	East to	South to	West to	North to
1	Xia'nan	Yifeng	0400	0009	108°5'15.785"E24°59'8.468"N	108°5'7.982"E24°59'1.589"N	108°5'1.076"E24°59'8.823"N	108°5'8.111"E24°59'11.605"N
2	Xia'nan	Yifeng	0400	0014	108°5'13.573"E24°58'57.422"N	108°5'4.633"E24°58'44.212"N	108°4'50.049"E24°58'56.981"N	108°5'11.774"E24°59'3.530"N
3	Huashan Forest Farm	Huanshan Branch Farm	1300	0076	108°15'24.200"E25°5'19.036"N	108°15'11.112"E25°5'7.386"N	108°15'9.563"E25°5'8.060"N	108°15'24.200"E25°5'19.036"N
4	Huashan Forest Farm	Dashabo Branch Farm	1800	0021	108°9'47.409"E25°9'28.250"N	108°9'36.599"E25°9'20.742"N	108°9'30.954"E25°9'22.199"N	108°9'36.363"E25°9'31.651"N
5	Huashan Forest Farm	Yalong Branch Farm	0500	0041	108°34'22.338"E25°1'29.402"N	108°34'19.056"E25°1'25.149"N	108°34'12.444"E25°1'27.754"N	108°34'21.838"E25°1'30.212"N
6	Huashan Forest Farm	Yalong Branch Farm	0700	0010	108°34'49.175"E25°1'9.888"N	108°34'40.349"E25°1'0.354"N	108°34'25.341"E25°1'6.264"N	108°34'37.725"E25°1'14.939"N
7	Huashan Forest Farm	Yalong Branch Farm	0700	0019	108°34'42.912"E25°1'0.818"N	108°34'24.032"E25°0'53.428"N	108°34'19.134"E25°1'2.583"N	108°34'28.294"E25°1'6.678"N
8	Huashan Forest Farm	Yalong Branch Farm	0700	0025	108°33'19.991"E25°1'4.408"N	108°33'12.920"E25°0'57.491"N	108°33'3.323"E25°1'1.544"N	108°33'15.261"E25°1'5.314"N
9	Da'an	Huanjie	0400	0004	108°19'27.350"E25°1'0.396"N	108°19'13.932"E25°0'44.318"N	108°19'11.247"E25°0'49.408"N	108°19'22.812"E25°1'4.292"N
10	Da'an	Huanjie	1100	0005	108°17'42.396"E24°59'38.561"N	108°17'40.277"E24°59'34.400"N	108°17'32.348"E24°59'39.366"N	108°17'38.775"E24°59'44.237"N
11	Da'an	Jinqiao	0700	0014	108°24'39.401"E25°1'32.432"N	108°24'37.025"E25°1'26.143"N	108°24'14.919"E25°1'43.077"N	108°24'28.322"E25°1'49.429"N
12	Tiancai	Tongjin	0300	0011	108°18'57.524"E24°46'49.540"N	108°18'54.351"E24°46'42.879"N	108°18'46.878"E24°46'50.381"N	108°18'48.306"E24°46'57.729"N
13	Tiancai	Tongjin	0500	0030	108°20'7.668"E24°47'39.653"N	108°19'56.287"E24°47'27.142"N	108°19'49.655"E24°47'34.790"N	108°20'6.568"E24°47'39.978"N
14	Chuanshan	Xiafeng	0400	0030	108°4'26.809"E25°4'19.239"N	108°4'21.892"E25°4'10.615"N	108°4'17.150"E25°4'17.018"N	108°4'23.012"E25°4'23.052"N
15	Chuanshan	Hedun	1000	0003	108°6'58.868"E25°9'9.460"N	108°6'48.533"E25°8'59.777"N	108°6'46.763"E25°9'2.621"N	108°6'54.125"E25°9'11.139"N
16	Shuiyuan	Lila	1000	0009	108°6'38.770"E24°56'1.280"N	108°6'36.313"E24°55'44.543"N	108°6'22.357"E24°56'0.114"N	108°6'23.855"E24°56'9.400"N
17	Shuiyuan	Lila	1100	0034	108°7'25.576"E24°56'37.763"N	108°7'17.639"E24°56'30.545"N	108°7'7.219"E24°56'37.378"N	108°7'13.244"E24°56'48.786"N
18	Luoyang	Yuhe	0300	0049	108°14'56.122"E25°4'12.635"N	108°14'42.037"E25°4'3.952"N	108°14'37.005"E25°4'9.098"N	108°14'43.975"E25°4'16.180"N
19	Changmei	Neitong	2700	0025	108°26'59.865"E24°59'24.862"N	108°26'54.078"E24°59'16.747"N	108°26'42.017"E24°59'34.155"N	108°26'46.598"E24°59'41.396"N
20	Longyan	Jiule	1000	0036	108°28'17.543"E25°17'32.285"N	108°27'53.705"E25°17'12.472"N	108°27'53.232"E25°17'12.495"N	108°28'9.803"E25°17'46.040"N
21	Longyan	Chenghuang	0200	0058	108°21'57.689"E25°23'35.561"N	108°21'49.005"E25°23'30.598"N	108°21'43.410"E25°23'36.804"N	108°21'46.457"E25°23'41.200"N

22	Longyan	Chenghuang	1000	0035	108°24'15.327"E25°22'26.841"N	108°24'4.920"E25°22'21.059"N	108°24'2.365"E25°22'21.484"N	108°24'14.032"E25°22'30.056"N
23	Longyan	Chenghuang	1000	0053	108°24'32.174"E25°22'19.073"N	108°24'24.515"E25°22'14.355"N	108°24'17.747"E25°22'18.170"N	108°24'29.460"E25°22'19.320"N
24	Longyan	Anshan	0200	0023	108°31'55.976"E25°15'45.716"N	108°31'54.173"E25°15'45.027"N	108°31'43.566"E25°15'51.999"N	108°31'52.326"E25°15'57.046"N
25	Longyan	Dadong	0300	0022	108°27'47.856"E25°26'51.993"N	108°27'36.309"E25°26'46.753"N	108°27'33.178"E25°26'48.035"N	108°27'36.394"E25°26'55.014"N
26	Longyan	Huangzhong	0200	0008	108°24'4.367"E25°27'25.455"N	108°23'57.514"E25°27'12.935"N	108°23'48.212"E25°27'20.727"N	108°24'4.127"E25°27'26.023"N
27	Longyan	Huangzhong	0200	0045	108°24'19.208"E25°27'0.038"N	108°24'2.246"E25°26'46.516"N	108°24'0.810"E25°26'50.765"N	108°24'16.300"E25°27'1.851"N
28	Longyan	Huangzhong	0800	0070	108°25'36.153"E25°26'11.023"N	108°25'26.086"E25°26'8.278"N	108°25'25.237"E25°26'9.235"N	108°25'35.762"E25°26'16.995"N
29	Longyan	Huangzhong	1700	0123	108°25'17.419"E25°24'11.170"N	108°24'56.061"E25°24'4.839"N	108°24'46.980"E25°24'12.776"N	108°25'4.728"E25°24'21.668"N
30	Longyan	Huangzhong	1900	0124	108°26'22.767"E25°24'21.524"N	108°26'16.559"E25°24'20.879"N	108°26'13.677"E25°24'25.577"N	108°26'16.550"E25°24'28.562"N
31	Longyan	Huangzhong	1900	0145	108°26'44.378"E25°24'9.246"N	108°26'28.580"E25°24'6.503"N	108°26'26.773"E25°24'10.834"N	108°26'28.806"E25°24'13.762"N
32	Huashan Forest Farm	Huanshan Branch Farm	1300	0083	108°15'1.324"E25°5'7.416"N	108°14'49.549"E25°4'57.268"N	108°14'49.249"E25°4'57.449"N	108°15'1.324"E25°5'7.416"N
33	Xia'nan	Yifeng	0300	0014	108°4'47.330"E24°58'48.249"N	108°4'36.065"E24°58'45.301"N	108°4'35.881"E24°58'45.598"N	108°4'44.445"E24°58'50.249"N
34	Dongxing	Dongxing	1000	0025	108°32'46.212"E25°9'30.417"N	108°32'31.264"E25°9'18.754"N	108°32'25.758"E25°9'21.102"N	108°32'43.211"E25°9'31.305"N
35	Dongxing	Dongxing Forest Farm	0100	0044	108°34'33.130"E25°10'12.336"N	108°34'32.084"E25°10'12.292"N	108°34'11.621"E25°10'22.309"N	108°34'17.326"E25°10'28.909"N
36	Dongxing	Weicai	0500	0044	108°32'42.629"E25°12'54.877"N	108°32'27.602"E25°12'50.241"N	108°32'24.184"E25°12'59.325"N	108°32'34.580"E25°12'59.857"N
37	Dongxing	Weicai	0600	0050	108°33'47.377"E25°12'46.744"N	108°33'29.466"E25°12'26.040"N	108°33'23.006"E25°12'28.087"N	108°33'47.327"E25°12'46.749"N
38	Dongxing	Jiudeng	1500	0027	108°34'27.379"E25°7'58.560"N	108°34'18.101"E25°7'47.097"N	108°34'17.103"E25°7'48.620"N	108°34'26.385"E25°8'0.791"N
39	Dongxing	Jiudeng	1500	0066	108°35'13.120"E25°7'34.660"N	108°35'11.126"E25°7'30.265"N	108°34'52.919"E25°7'32.659"N	108°34'58.889"E25°7'42.601"N
40	Dongxing	Jiudeng	1700	0039	108°36'34.666"E25°7'35.890"N	108°36'22.342"E25°7'32.082"N	108°36'8.285"E25°7'51.429"N	108°36'8.984"E25°7'52.188"N
41	Dongxing	Jiaxing	0700	0023	108°32'50.485"E25°5'5.941"N	108°32'46.327"E25°5'2.247"N	108°32'11.579"E25°5'8.823"N	108°32'35.725"E25°5'18.203"N
42	Dongxing	Jiaxing	0800	0032	108°32'36.702"E25°4'34.149"N	108°32'30.942"E25°4'30.248"N	108°32'5.723"E25°4'38.534"N	108°32'18.688"E25°4'41.223"N
43	Dongxing	Jiaxing	1000	0015	108°32'25.515"E25°3'39.887"N	108°32'9.105"E25°3'28.740"N	108°32'5.657"E25°3'30.396"N	108°32'12.763"E25°3'45.237"N
44	Dongxing	Jiaxing	1300	0052	108°30'38.701"E25°4'32.888"N	108°30'19.997"E25°4'29.585"N	108°30'15.340"E25°4'36.181"N	108°30'25.954"E25°4'39.011"N
45	Dongxing	Cailie	0500	0021	108°31'48.651"E25°7'1.689"N	108°31'43.626"E25°6'59.392"N	108°31'32.188"E25°7'16.620"N	108°31'32.188"E25°7'16.620"N
46	Dongxing	Biaoshan	0900	0050	108°34'10.190"E25°13'22.821"N	108°33'59.820"E25°13'20.676"N	108°33'53.175"E25°13'25.756"N	108°34'3.296"E25°13'34.593"N
47	Dongxing	Biaoshan	2000	0031	108°33'43.178"E25°11'25.294"N	108°33'38.188"E25°11'17.937"N	108°33'21.102"E25°11'36.688"N	108°33'26.848"E25°11'38.807"N
48	Dongxing	Biaoshan	2800	0014	108°34'42.009"E25°12'1.988"N	108°34'21.018"E25°11'53.902"N	108°34'10.870"E25°12'1.081"N	108°34'23.139"E25°12'8.423"N

49	Dongxing	Duya	0100	0024	108°27'21.426"E25°4'15.560"N	108°27'15.943"E25°4'12.246"N	108°27'9.532"E25°4'14.685"N	108°27'14.835"E25°4'20.316"N
50	Dongxing	Duya	0700	0030	108°29'13.824"E25°3'32.457"N	108°29'13.824"E25°3'32.457"N	108°29'2.536"E25°3'41.591"N	108°29'6.854"E25°3'46.813"N
51	Dongxing	Duya	1000	0006	108°27'7.374"E25°4'9.444"N	108°26'34.330"E25°3'54.965"N	108°26'31.804"E25°3'56.517"N	108°27'6.033"E25°4'11.085"N
52	Dongxing	Duya	1300	0007	108°27'16.515"E25°3'0.772"N	108°27'11.507"E25°2'53.579"N	108°26'57.524"E25°2'56.018"N	108°27'12.983"E25°3'2.760"N
53	Dongxing	Duya	1300	0117	108°27'9.969"E25°2'4.176"N	108°27'0.040"E25°1'57.166"N	108°26'49.934"E25°2'3.926"N	108°27'5.569"E25°2'15.926"N
54	Dongxing	Duya	2000	0012	108°32'22.845"E25°2'34.571"N	108°32'19.342"E25°2'21.635"N	108°31'56.095"E25°2'34.532"N	108°32'10.574"E25°2'41.612"N
55	Dongxing	Duya	2000	0044	108°32'45.324"E25°2'23.920"N	108°32'39.111"E25°2'22.439"N	108°32'24.088"E25°2'27.301"N	108°32'33.100"E25°2'28.865"N
56	Dongxing	Duya	2200	0091	108°31'53.854"E25°1'31.608"N	108°31'45.032"E25°1'23.024"N	108°31'34.522"E25°1'31.145"N	108°31'36.037"E25°1'35.809"N
57	Dongxing	Chashan	0400	0041	108°37'46.065"E25°16'45.872"N	108°37'38.655"E25°16'31.022"N	108°37'31.838"E25°16'34.529"N	108°37'44.011"E25°16'47.471"N
58	Dongxing	Chashan	1100	0006	108°36'9.616"E25°15'57.347"N	108°36'3.884"E25°15'47.975"N	108°35'58.133"E25°15'58.093"N	108°35'59.572"E25°16'1.918"N
59	Dongxing	Chashan	2500	0001	108°34'6.228"E25°14'28.216"N	108°33'51.811"E25°14'22.882"N	108°33'33.934"E25°14'30.117"N	108°33'51.973"E25°14'43.409"N
60	Dongxing	Daxing	0100	0008	108°36'45.126"E25°7'32.929"N	108°36'30.984"E25°7'16.580"N	108°36'25.483"E25°7'27.951"N	108°36'39.177"E25°7'37.008"N
61	Dongxing	Daxing	0100	0054	108°37'13.053"E25°6'58.932"N	108°36'50.495"E25°6'48.772"N	108°36'46.513"E25°6'58.368"N	108°36'59.552"E25°7'2.350"N
62	Dongxing	Daxing	0800	0007	108°35'41.561"E25°6'48.533"N	108°35'32.332"E25°6'43.014"N	108°35'31.702"E25°6'53.381"N	108°35'37.366"E25°7'4.757"N
63	Dongxing	Daxing	0800	0022	108°36'31.781"E25°6'51.439"N	108°36'21.968"E25°6'47.965"N	108°36'6.591"E25°6'52.583"N	108°36'12.733"E25°6'59.725"N
64	Dongxing	Daxing	1000	0004	108°35'9.070"E25°7'5.892"N	108°34'56.343"E25°6'46.898"N	108°34'55.861"E25°6'50.315"N	108°35'7.472"E25°7'6.524"N
65	Dongxing	Daxing	1100	0015	108°34'13.521"E25°6'38.789"N	108°33'49.408"E25°6'26.204"N	108°33'47.144"E25°6'31.301"N	108°33'50.936"E25°6'46.399"N
66	Dongxing	Daxing	1200	0002	108°35'3.195"E25°6'39.527"N	108°34'56.879"E25°6'30.882"N	108°34'36.420"E25°6'43.489"N	108°34'37.954"E25°6'46.806"N
67	Dongxing	Daxing	1600	0015	108°37'9.168"E25°5'39.655"N	108°36'58.008"E25°5'30.588"N	108°36'55.488"E25°5'37.841"N	108°37'1.001"E25°5'44.963"N
68	Dongxing	Longcheng	1000	0014	108°34'7.436"E25°4'58.843"N	108°33'54.335"E25°4'50.161"N	108°33'38.757"E25°5'0.036"N	108°33'51.947"E25°5'6.706"N
69	Dongxing	Longcheng	1300	0004	108°32'52.295"E25°4'22.780"N	108°32'44.341"E25°4'0.682"N	108°32'37.125"E25°4'6.901"N	108°32'50.910"E25°4'26.152"N
70	Dongxing	Longcheng	1500	0085	108°33'46.557"E25°2'22.964"N	108°33'37.802"E25°2'19.450"N	108°33'15.310"E25°2'26.981"N	108°33'29.680"E25°2'40.769"N
71	Dongxing	Longcheng	1900	0045	108°34'22.395"E25°2'25.479"N	108°34'19.122"E25°2'21.841"N	108°34'3.228"E25°2'29.867"N	108°34'6.231"E25°2'35.336"N
72	Huashan Forest Farm	Yalong Branch Farm	0100	0008	108°34'8.237"E25°6'14.053"N	108°33'52.102"E25°6'6.389"N	108°33'43.448"E25°6'11.097"N	108°33'57.315"E25°6'23.432"N
73	Huashan Forest Farm	Yalong Branch Farm	0600	0001	108°35'34.572"E25°2'23.188"N	108°35'18.779"E25°1'59.562"N	108°35'4.959"E25°2'5.509"N	108°35'31.584"E25°2'24.890"N
74	Da'an	Jinqiao	1300	0017	108°18'41.975"E25°1'53.737"N	108°18'32.069"E25°1'47.943"N	108°18'30.263"E25°1'48.192"N	108°18'39.121"E25°2'1.658"N
75	Da'an	Jinqiao	1400	0037	108°20'2.624"E25°1'6.598"N	108°19'50.474"E25°0'57.342"N	108°19'45.743"E25°1'16.497"N	108°19'46.904"E25°1'17.085"N

76	Tiancai	Tongjin	1000	0044	108°19'59.846"E24°44'44.221"N	108°19'49.687"E24°44'25.747"N	108°19'43.596"E24°44'34.617"N	108°19'59.401"E24°44'46.407"N
77	Chuanshan	Xiafeng	0200	0024	108°4'0.233"E25°4'57.073"N	108°3'35.176"E25°4'43.592"N	108°3'32.260"E25°4'47.710"N	108°3'59.013"E25°4'57.873"N
78	Chuanshan	Xiafeng	0500	0106	108°2'58.375"E25°4'29.776"N	108°2'42.829"E25°4'15.327"N	108°2'41.036"E25°4'18.200"N	108°2'52.018"E25°4'33.067"N
79	Chuanshan	Xiafeng	0600	0073	108°2'36.046"E25°3'5.529"N	108°2'25.301"E25°2'59.767"N	108°2'18.172"E25°3'4.697"N	108°2'28.846"E25°3'11.674"N
80	Chuanshan	Hedun	0400	0043	108°6'17.104"E25°10'46.054"N	108°5'48.993"E25°10'31.734"N	108°5'44.794"E25°10'33.865"N	108°6'5.846"E25°10'55.137"N
81	Chuanshan	Hedun	0800	0023	108°6'14.911"E25°8'31.313"N	108°6'0.393"E25°8'25.209"N	108°5'53.706"E25°8'39.810"N	108°6'6.327"E25°8'47.124"N
82	Chuanshan	Hedun	1100	0027	108°7'39.609"E25°9'55.247"N	108°7'33.667"E25°9'48.187"N	108°7'29.337"E25°9'54.491"N	108°7'36.220"E25°10'1.061"N
83	Chuanshan	Hedun	1200	0010	108°9'11.656"E25°10'35.536"N	108°8'53.742"E25°10'27.166"N	108°8'53.177"E25°10'27.272"N	108°9'3.046"E25°10'40.189"N
84	Chuanshan	Gubin	0100	0087	108°9'51.032"E25°5'19.562"N	108°9'43.078"E25°5'16.330"N	108°9'31.085"E25°5'17.681"N	108°9'43.801"E25°5'25.379"N
85	Chuanshan	Tongban	0100	0074	108°3'36.597"E25°1'8.720"N	108°3'34.186"E25°1'7.237"N	108°3'26.550"E25°1'9.548"N	108°3'33.530"E25°1'12.228"N
86	Chuanshan	Tongban	0200	0008	108°4'5.344"E25°1'7.922"N	108°3'57.169"E25°1'1.659"N	108°3'54.010"E25°1'4.241"N	108°4'1.212"E25°1'11.348"N
87	Chuanshan	Tongban	0200	0016	108°4'3.573"E25°0'58.183"N	108°3'49.223"E25°0'52.946"N	108°3'48.484"E25°0'53.875"N	108°4'0.227"E25°1'1.219"N
88	Chuanshan	Tongban	0300	0042	108°4'41.102"E25°0'56.166"N	108°4'33.541"E25°0'52.052"N	108°4'31.546"E25°0'53.794"N	108°4'37.094"E25°1'0.123"N
89	Chuanshan	Tongban	0400	0008	108°4'54.837"E25°0'46.627"N	108°4'50.758"E25°0'42.489"N	108°4'41.840"E25°0'43.489"N	108°4'54.521"E25°0'47.328"N
90	Chuanshan	Tongban	0700	0008	108°5'14.578"E24°59'49.650"N	108°5'10.821"E24°59'47.571"N	108°5'1.655"E24°59'55.917"N	108°5'2.563"E24°59'58.587"N
91	Chuanshan	Tangwan	0100	0064	108°2'23.535"E25°1'30.389"N	108°2'15.743"E25°1'26.395"N	108°2'13.839"E25°1'31.853"N	108°2'19.158"E25°1'32.483"N
92	Chuanshan	Tangwan	0600	0019	108°2'4.419"E24°59'53.333"N	108°1'55.548"E24°59'45.563"N	108°1'48.001"E24°59'49.907"N	108°1'58.284"E24°59'57.614"N
93	Chuanshan	Linlang	0700	0009	108°6'19.636"E25°0'40.113"N	108°6'5.843"E25°0'32.369"N	108°5'47.260"E25°0'44.629"N	108°5'55.133"E25°0'54.444"N
94	Chuanshan	Linlang	0700	0040	108°5'51.913"E25°0'30.054"N	108°5'46.938"E25°0'26.125"N	108°5'43.755"E25°0'33.947"N	108°5'47.654"E25°0'36.172"N
95	Chuanshan	Youdong	0300	0053	108°5'32.192"E25°3'43.710"N	108°5'21.011"E25°3'40.529"N	108°5'18.242"E25°3'47.409"N	108°5'28.463"E25°3'48.941"N
96	Chuanshan	Youdong	0500	0079	108°4'32.021"E25°3'19.141"N	108°4'22.590"E25°3'14.591"N	108°4'21.839"E25°3'17.302"N	108°4'29.449"E25°3'21.150"N
97	Chuanshan	Baidan	0300	0008	108°2'0.946"E25°7'12.283"N	108°1'57.086"E25°7'4.704"N	108°1'21.010"E25°7'19.789"N	108°1'21.340"E25°7'21.412"N
98	Chuanshan	Baidan	0300	0015	108°2'9.385"E25°6'49.269"N	108°2'6.321"E25°6'46.863"N	108°1'36.887"E25°7'4.755"N	108°1'42.739"E25°7'6.805"N
99	Chuanshan	Baidan	0800	0068	108°2'8.829"E25°4'51.277"N	108°2'1.060"E25°4'41.373"N	108°1'57.272"E25°4'50.678"N	108°1'59.709"E25°4'53.378"N
100	Chuanshan	Shacun	2800	0044	108°5'43.307"E25°6'45.407"N	108°5'28.503"E25°6'38.524"N	108°5'22.867"E25°6'39.824"N	108°5'42.895"E25°6'48.272"N
101	Chuanshan	Shacun	2800	0121	108°5'17.163"E25°5'58.308"N	108°5'6.949"E25°5'43.114"N	108°5'0.576"E25°5'55.315"N	108°5'12.676"E25°6'1.577"N
102	Chuanshan	Chajiang	0200	0008	108°2'36.299"E25°2'57.816"N	108°2'28.125"E25°2'50.786"N	108°2'23.408"E25°2'53.500"N	108°2'30.991"E25°2'58.083"N

103	Chuanshan	Chajiang	0200	0056	108°2'32.374"E25°2'29.318"N	108°2'19.528"E25°2'24.597"N	108°2'16.553"E25°2'26.731"N	108°2'20.606"E25°2'32.373"N
104	Si'en	Sanle	0300	0022	108°14'30.513"E24°50'51.335"N	108°14'28.037"E24°50'48.064"N	108°14'18.720"E24°50'52.863"N	108°14'21.559"E24°50'55.735"N
105	Si'en	Zhongxing	0400	0012	108°12'26.004"E24°52'0.143"N	108°12'21.446"E24°51'53.480"N	108°12'12.776"E24°52'0.135"N	108°12'24.231"E24°52'6.600"N
106	Si'en	Zhongxing	0600	0010	108°12'18.363"E24°51'20.992"N	108°12'15.001"E24°51'18.019"N	108°12'0.556"E24°51'21.753"N	108°12'8.335"E24°51'28.131"N
107	Si'en	Renhe	1100	0028	108°18'37.609"E24°51'35.577"N	108°18'24.890"E24°51'20.853"N	108°18'7.960"E24°51'38.318"N	108°18'9.490"E24°51'41.295"N
108	Si'en	Chengguan	0500	0063	108°16'25.893"E24°49'7.416"N	108°16'24.554"E24°49'6.754"N	108°16'17.849"E24°49'19.094"N	108°16'24.740"E24°49'26.194"N
109	Si'en	Anliang	0100	0007	108°16'21.554"E24°53'21.513"N	108°16'13.008"E24°53'11.426"N	108°16'9.246"E24°53'13.420"N	108°16'18.402"E24°53'23.642"N
110	Si'en	Anliang	0100	0027	108°16'18.985"E24°53'1.305"N	108°16'15.895"E24°52'56.970"N	108°16'1.536"E24°53'6.133"N	108°16'10.264"E24°53'11.138"N
111	Si'en	Anliang	0700	0049	108°17'23.320"E24°51'23.086"N	108°17'22.175"E24°51'13.708"N	108°17'13.164"E24°51'17.773"N	108°17'19.309"E24°51'25.741"N
112	Si'en	Wenhua	0100	0010	108°17'51.428"E24°49'51.254"N	108°17'49.208"E24°49'46.436"N	108°17'37.708"E24°49'55.582"N	108°17'49.432"E24°49'59.517"N
113	Si'en	Qingtian	0100	0031	108°18'40.877"E24°47'15.618"N	108°18'40.076"E24°47'15.212"N	108°18'20.617"E24°47'28.522"N	108°18'23.660"E24°47'31.449"N
114	Si'en	Naihe	0300	0065	108°12'49.596"E24°49'29.634"N	108°12'42.078"E24°49'21.887"N	108°12'39.808"E24°49'24.920"N	108°12'49.070"E24°49'30.425"N
115	Si'en	Chenshuang	1100	0101	108°15'12.094"E24°52'40.868"N	108°15'6.674"E24°52'35.761"N	108°15'1.057"E24°52'44.124"N	108°15'3.090"E24°52'46.343"N
116	Minglun	Jixiang	0200	0001	108°27'15.705"E25°11'25.347"N	108°27'7.292"E25°11'19.459"N	108°26'49.098"E25°11'28.196"N	108°26'56.263"E25°11'30.482"N
117	Minglun	Minglun	2100	0015	108°20'39.119"E25°10'30.180"N	108°20'31.233"E25°10'16.887"N	108°20'30.272"E25°10'19.626"N	108°20'35.304"E25°10'31.945"N
118	Minglun	Minglun	2200	0022	108°20'51.009"E25°10'50.406"N	108°20'41.155"E25°10'41.365"N	108°20'38.151"E25°10'47.739"N	108°20'47.963"E25°10'53.609"N
119	Minglun	Minglun	2200	0052	108°20'47.981"E25°10'1.547"N	108°20'30.909"E25°9'35.365"N	108°20'25.987"E25°9'36.460"N	108°20'38.654"E25°10'7.081"N
120	Minglun	Baixiang	0700	0017	108°25'35.284"E25°9'18.585"N	108°25'21.153"E25°9'8.640"N	108°25'17.096"E25°9'12.643"N	108°25'32.297"E25°9'20.766"N
121	Minglun	Cuishan	0200	0035	108°22'5.913"E25°19'21.143"N	108°21'58.194"E25°19'2.966"N	108°21'55.745"E25°19'4.095"N	108°22'2.046"E25°19'24.129"N
122	Minglun	Haodong	0100	0009	108°21'11.388"E25°9'22.973"N	108°21'7.128"E25°9'20.924"N	108°20'51.603"E25°9'26.835"N	108°20'56.359"E25°9'34.937"N
123	Minglun	Haodong	0500	0009	108°24'41.928"E25°8'36.375"N	108°24'22.773"E25°8'22.352"N	108°24'18.291"E25°8'24.247"N	108°24'41.282"E25°8'36.701"N
124	Minglun	Haodong	0700	0002	108°21'40.294"E25°8'56.551"N	108°21'31.674"E25°8'45.951"N	108°21'19.092"E25°8'53.271"N	108°21'24.588"E25°8'57.784"N
125	Shuiyuan	Sanmei	0200	0005	108°8'2.672"E24°52'39.353"N	108°7'53.722"E24°52'28.870"N	108°7'38.682"E24°52'37.560"N	108°7'54.572"E24°52'41.025"N
126	Shuiyuan	Sanmei	0400	0021	108°9'16.382"E24°51'13.368"N	108°9'11.241"E24°51'10.138"N	108°8'57.591"E24°51'22.335"N	108°9'2.195"E24°51'26.449"N
127	Shuiyuan	Zhongjian	0200	0041	108°11'38.662"E24°55'22.629"N	108°11'35.303"E24°55'12.195"N	108°11'23.972"E24°55'20.849"N	108°11'28.623"E24°55'25.325"N
128	Shuiyuan	Zhongjian	0200	0053	108°11'7.589"E24°55'19.358"N	108°11'2.749"E24°55'14.170"N	108°11'1.030"E24°55'18.061"N	108°11'4.732"E24°55'21.806"N
129	Shuiyuan	Zhongjian	0700	0052	108°11'0.377"E24°52'23.537"N	108°10'56.670"E24°52'19.301"N	108°10'50.038"E24°52'29.260"N	108°10'51.967"E24°52'30.820"N

130	Shuiyuan	Zhongjian	0900	0042	108°10'5.560"E24°51'50.265"N	108°10'1.326"E24°51'46.355"N	108°9'51.398"E24°51'51.695"N	108°9'55.730"E24°51'54.143"N
131	Shuiyuan	Heping	0600	0012	108°9'2.797"E24°55'54.245"N	108°8'58.819"E24°55'46.278"N	108°8'54.155"E24°55'50.062"N	108°8'59.964"E24°55'57.666"N
132	Shuiyuan	Heping	0700	0054	108°8'44.057"E24°55'35.624"N	108°8'40.528"E24°55'29.153"N	108°8'31.241"E24°55'34.257"N	108°8'34.402"E24°55'40.122"N
133	Shuiyuan	Shuiyuan	0300	0030	108°7'30.374"E24°54'31.716"N	108°7'23.531"E24°54'24.757"N	108°7'18.157"E24°54'34.477"N	108°7'28.706"E24°54'37.135"N
134	Shuiyuan	Shuiyuan	0700	0114	108°9'52.538"E24°53'20.981"N	108°9'42.530"E24°53'16.905"N	108°9'40.339"E24°53'22.484"N	108°9'47.934"E24°53'26.323"N
135	Shuiyuan	Shuiyuan	1100	0052	108°7'47.794"E24°53'28.074"N	108°7'40.515"E24°53'15.299"N	108°7'35.941"E24°53'25.007"N	108°7'46.835"E24°53'30.431"N
136	Shuiyuan	Lila	1100	0016	108°7'46.128"E24°56'57.079"N	108°7'38.814"E24°56'49.810"N	108°7'30.317"E24°56'58.822"N	108°7'41.584"E24°57'5.700"N
137	Luoyang	Guchang	0200	0009	108°15'37.680"E25°2'38.830"N	108°15'28.682"E25°2'33.287"N	108°15'24.913"E25°2'36.608"N	108°15'32.716"E25°2'44.619"N
138	Luoyang	Guchang	0500	0048	108°15'40.770"E25°1'29.535"N	108°15'37.158"E25°1'21.785"N	108°15'33.589"E25°1'31.499"N	108°15'34.059"E25°1'32.042"N
139	Luoyang	Tuanjie	0400	0179	108°10'7.770"E24°55'48.945"N	108°9'59.137"E24°55'45.942"N	108°9'56.229"E24°55'49.719"N	108°10'0.533"E24°55'54.607"N
140	Luoyang	Dimeng	0600	0099	108°12'51.272"E25°5'49.171"N	108°12'37.025"E25°5'47.506"N	108°12'27.028"E25°5'55.319"N	108°12'28.505"E25°5'57.551"N
141	Luoyang	Dimeng	0700	0041	108°12'3.877"E25°5'47.023"N	108°12'0.600"E25°5'38.657"N	108°11'50.265"E25°6'3.433"N	108°11'50.265"E25°6'3.433"N
142	Luoyang	Dimeng	1000	0016	108°11'58.340"E25°4'35.972"N	108°11'52.742"E25°4'29.980"N	108°11'39.142"E25°4'44.641"N	108°11'45.629"E25°4'51.420"N
143	Luoyang	Dimeng	1100	0019	108°13'7.231"E25°4'46.514"N	108°12'39.420"E25°4'32.184"N	108°12'36.530"E25°4'41.203"N	108°13'4.790"E25°4'49.055"N
144	Luoyang	Dimeng	1200	0050	108°13'53.232"E25°4'33.670"N	108°13'42.945"E25°4'21.902"N	108°13'39.454"E25°4'28.596"N	108°13'42.564"E25°4'35.725"N
145	Luoyang	Miaoshi	0200	0032	108°9'28.186"E25°1'26.657"N	108°9'12.656"E25°1'1.201"N	108°9'9.921"E25°1'19.912"N	108°9'22.253"E25°1'27.803"N
146	Luoyang	Miaoshi	0700	0014	108°9'32.708"E25°0'48.759"N	108°9'22.744"E25°0'39.760"N	108°9'3.525"E25°0'46.937"N	108°9'20.181"E25°0'54.551"N
147	Luoyang	Miaoshi	0900	0010	108°10'41.871"E24°59'30.995"N	108°10'35.869"E24°59'23.520"N	108°10'30.356"E24°59'27.990"N	108°10'36.765"E24°59'34.879"N
148	Luoyang	Wenya	1500	0019	108°18'14.844"E25°12'24.798"N	108°18'13.708"E25°12'16.339"N	108°18'1.439"E25°12'30.294"N	108°18'4.178"E25°12'32.169"N
149	Luoyang	Wenya	2000	0073	108°16'25.689"E25°15'25.434"N	108°16'19.438"E25°15'6.395"N	108°15'58.322"E25°15'32.180"N	108°16'0.760"E25°15'32.479"N
150	Luoyang	Yong'an	0300	0016	108°12'16.055"E25°10'16.692"N	108°12'10.388"E25°10'6.726"N	108°12'5.933"E25°10'8.597"N	108°12'12.659"E25°10'21.185"N
151	Luoyang	Yong'an	0600	0037	108°12'41.767"E25°8'46.145"N	108°12'28.272"E25°8'38.755"N	108°12'26.153"E25°8'44.458"N	108°12'31.069"E25°8'50.999"N
152	Luoyang	Yongquan	2200	0026	108°17'19.128"E25°8'12.813"N	108°17'17.586"E25°8'11.016"N	108°17'10.564"E25°8'28.808"N	108°17'11.236"E25°8'28.824"N
153	Luoyang	Yongquan	2600	0025	108°20'18.025"E25°6'35.926"N	108°19'58.767"E25°6'23.697"N	108°19'58.542"E25°6'24.604"N	108°20'4.009"E25°6'45.202"N
154	Luoyang	Jiangkou	0700	0012	108°12'54.814"E25°1'32.641"N	108°12'26.613"E25°1'17.144"N	108°12'24.482"E25°1'18.134"N	108°12'54.204"E25°1'32.687"N
155	Luoyang	Jiangkou	0700	0035	108°12'46.457"E25°1'23.916"N	108°12'30.994"E25°1'10.191"N	108°12'26.146"E25°1'13.658"N	108°12'44.522"E25°1'25.277"N
156	Luoyang	Luoyang	0100	0058	108°11'0.989"E24°58'32.062"N	108°10'47.915"E24°58'22.548"N	108°10'45.878"E24°58'26.736"N	108°10'57.955"E24°58'36.353"N

157	Luoyang	Yuhe	0300	0047	108°14'39.221"E25°3'54.952"N	108°14'32.516"E25°3'43.979"N	108°14'22.331"E25°4'3.740"N	108°14'25.860"E25°4'16.966"N
158	Luoyang	Yuhe	0400	0075	108°15'4.295"E25°3'51.171"N	108°14'58.796"E25°3'45.384"N	108°14'51.030"E25°3'47.699"N	108°14'58.907"E25°3'54.393"N
159	Changmei	Bafu	1000	0006	108°26'46.382"E24°53'20.449"N	108°26'43.438"E24°53'17.556"N	108°26'32.477"E24°53'27.669"N	108°26'36.253"E24°53'32.105"N
160	Changmei	Guan'an	0300	0053	108°24'26.935"E24°57'29.134"N	108°24'19.649"E24°57'21.145"N	108°24'17.709"E24°57'36.141"N	108°24'23.917"E24°57'40.327"N
161	Changmei	Neidian	0400	0010	108°25'27.994"E24°54'48.871"N	108°25'23.294"E24°54'47.533"N	108°25'9.647"E24°54'50.937"N	108°25'25.188"E24°54'56.738"N
162	Changmei	Neitong	0100	0051	108°27'12.681"E25°1'20.734"N	108°27'10.936"E25°1'19.208"N	108°27'0.482"E25°1'25.580"N	108°27'2.903"E25°1'27.779"N
163	Changmei	Neitong	0100	0059	108°27'41.747"E25°1'0.552"N	108°27'39.572"E25°0'57.043"N	108°27'8.045"E25°1'18.482"N	108°27'20.624"E25°1'20.158"N
164	Changmei	Neitong	0400	0009	108°29'43.966"E25°1'49.171"N	108°29'38.582"E25°1'47.295"N	108°29'33.272"E25°1'48.733"N	108°29'40.373"E25°1'52.866"N
165	Changmei	Neitong	0800	0015	108°32'39.532"E25°0'50.751"N	108°32'30.355"E25°0'43.468"N	108°32'23.505"E25°0'45.663"N	108°32'32.141"E25°1'0.292"N
166	Changmei	Neitong	0900	0010	108°33'10.114"E25°0'27.798"N	108°32'52.536"E25°0'20.150"N	108°32'44.767"E25°0'29.132"N	108°33'6.370"E25°0'37.232"N
167	Changmei	Neitong	1900	0008	108°27'43.672"E25°0'55.972"N	108°27'38.573"E25°0'38.458"N	108°27'16.116"E25°0'55.236"N	108°27'25.919"E25°0'58.864"N
168	Xunle	Quan'an	0300	0014	108°18'58.419"E25°24'4.277"N	108°18'51.080"E25°23'49.899"N	108°18'43.047"E25°23'57.345"N	108°18'55.590"E25°24'8.445"N
169	Xunle	Quan'an	0300	0016	108°19'8.867"E25°24'0.859"N	108°18'57.060"E25°23'48.521"N	108°18'55.319"E25°23'49.578"N	108°19'4.582"E25°24'6.490"N
170	Xunle	Quan'an	0500	0064	108°20'29.363"E25°24'42.626"N	108°20'16.113"E25°24'35.332"N	108°20'12.784"E25°24'37.236"N	108°20'25.834"E25°24'47.113"N
171	Xunle	Quan'an	0500	0082	108°20'35.860"E25°24'28.785"N	108°20'25.816"E25°24'20.364"N	108°20'21.433"E25°24'28.802"N	108°20'32.026"E25°24'31.924"N
172	Xunle	Quan'an	1600	0100	108°20'14.057"E25°20'59.247"N	108°20'2.873"E25°20'42.584"N	108°20'2.799"E25°20'42.729"N	108°20'12.266"E25°21'0.315"N
173	Xunle	Kangning	1000	0021	108°12'23.125"E25°25'46.246"N	108°12'19.816"E25°25'27.522"N	108°12'8.014"E25°25'42.965"N	108°12'20.614"E25°25'48.133"N
174	Xunle	Fushou	0600	0034	108°16'54.420"E25°24'10.433"N	108°16'35.821"E25°24'1.843"N	108°16'33.830"E25°24'4.080"N	108°16'40.224"E25°24'12.660"N
175	Xunle	Zhenbei	0800	0010	108°16'49.049"E25°27'58.700"N	108°16'42.009"E25°27'44.563"N	108°16'26.762"E25°27'50.851"N	108°16'48.905"E25°27'59.331"N
176	Xunle	Zhenbei	0900	0015	108°15'56.930"E25°26'42.445"N	108°15'46.656"E25°26'37.749"N	108°15'30.276"E25°26'45.201"N	108°15'47.225"E25°26'56.072"N
177	Xunle	Zhenbei	0900	0022	108°15'53.128"E25°26'34.786"N	108°15'47.927"E25°26'26.672"N	108°15'30.797"E25°26'41.530"N	108°15'31.961"E25°26'44.669"N
178	Xunle	Changbei	2000	0037	108°21'43.672"E25°25'24.471"N	108°21'40.237"E25°25'24.270"N	108°21'32.369"E25°25'29.032"N	108°21'39.977"E25°25'31.753"N
179	Longyan	Ganyan	0600	0102	108°29'14.496"E25°23'49.562"N	108°29'13.988"E25°23'41.856"N	108°29'4.906"E25°23'53.314"N	108°29'5.986"E25°23'54.556"N
180	Longyan	Ganyan	0800	0058	108°28'25.374"E25°24'0.771"N	108°28'11.072"E25°23'51.180"N	108°28'7.041"E25°24'1.072"N	108°28'11.869"E25°24'14.487"N
181	Longyan	Ganyan	0900	0059	108°28'0.168"E25°23'38.025"N	108°27'53.863"E25°23'34.360"N	108°27'47.175"E25°23'39.746"N	108°27'57.487"E25°23'46.603"N
182	Longyan	Chaohe	0100	0012	108°31'37.700"E25°24'25.055"N	108°31'19.672"E25°24'13.445"N	108°31'14.937"E25°24'18.729"N	108°31'32.856"E25°24'28.177"N
183	Longyan	Chaohe	0200	0015	108°32'14.851"E25°23'45.094"N	108°32'0.635"E25°23'35.416"N	108°31'54.194"E25°23'40.122"N	108°32'5.153"E25°23'53.690"N

184	Longyan	Chaoge	2200	0058	108°34'0.358"E25°20'26.417"N	108°33'50.074"E25°20'15.522"N	108°33'49.846"E25°20'17.058"N	108°33'56.724"E25°20'32.383"N
185	Longyan	Chaoge	2900	0171	108°33'56.882"E25°19'20.117"N	108°33'47.652"E25°19'18.798"N	108°33'40.647"E25°19'20.715"N	108°33'49.282"E25°19'25.701"N
186	Longyan	Kenlan	0400	0059	108°30'55.063"E25°19'23.440"N	108°30'17.241"E25°18'58.975"N	108°30'17.036"E25°19'1.696"N	108°30'38.913"E25°19'26.614"N
187	Longyan	Liangxing	0200	0004	108°28'45.074"E25°20'13.364"N	108°28'43.037"E25°20'8.956"N	108°28'28.769"E25°20'18.074"N	108°28'38.056"E25°20'28.695"N
188	Longyan	Dake	0400	0029	108°35'18.528"E25°18'48.719"N	108°35'7.899"E25°18'38.168"N	108°35'4.438"E25°18'48.496"N	108°35'17.761"E25°18'50.579"N
189	Longyan	Dake	0500	0045	108°33'45.989"E25°18'57.610"N	108°33'42.792"E25°18'43.445"N	108°33'27.045"E25°18'55.798"N	108°33'34.548"E25°19'9.507"N
190	Longyan	Dake	0900	0002	108°34'13.449"E25°18'46.654"N	108°34'10.900"E25°18'37.584"N	108°33'40.143"E25°18'40.568"N	108°34'0.085"E25°18'49.410"N
191	Longyan	Dake	1100	0068	108°36'4.184"E25°18'7.409"N	108°35'53.649"E25°18'3.875"N	108°35'52.901"E25°18'3.988"N	108°35'57.996"E25°18'9.415"N
192	Longyan	Dake	2200	0061	108°33'25.647"E25°16'31.664"N	108°33'8.505"E25°16'24.005"N	108°33'8.326"E25°16'24.020"N	108°33'22.308"E25°16'36.387"N
193	Longyan	Huangzhong	1000	0087	108°26'50.129"E25°25'57.693"N	108°26'46.475"E25°25'52.959"N	108°26'37.613"E25°26'0.356"N	108°26'46.451"E25°26'2.983"N
194	Longyan	Longyan	0200	0074	108°30'20.219"E25°17'25.304"N	108°30'12.897"E25°17'15.743"N	108°30'3.248"E25°17'25.769"N	108°30'10.643"E25°17'29.881"N
195	Si'en	Anliang	0400	0002	108°16'16.480"E24°52'41.268"N	108°16'7.197"E24°52'27.724"N	108°16'0.366"E24°52'37.014"N	108°16'7.468"E24°52'44.461"N
196	Chuanshan	Wuwei	0100	0002	108°7'6.281"E25°8'12.405"N	108°7'2.428"E25°7'58.869"N	108°6'55.045"E25°8'11.061"N	108°6'57.211"E25°8'13.425"N
197	Chuanshan	Hedun	0800	0133	108°5'37.794"E25°8'14.655"N	108°5'36.205"E25°8'9.402"N	108°5'29.034"E25°8'14.810"N	108°5'36.654"E25°8'15.882"N
198	Chuanshan	Gubin	0700	0033	108°10'7.851"E25°3'35.678"N	108°10'4.760"E25°3'32.573"N	108°9'54.487"E25°3'41.500"N	108°10'4.571"E25°3'44.540"N
199	Minglun	Baisong	0100	0011	108°28'49.900"E25°9'16.074"N	108°28'38.848"E25°9'12.610"N	108°28'35.529"E25°9'19.502"N	108°28'38.776"E25°9'20.191"N
200	Minglun	Cuishan	0100	0020	108°21'38.571"E25°19'55.401"N	108°21'29.591"E25°19'45.997"N	108°21'13.827"E25°19'52.533"N	108°21'38.407"E25°19'55.863"N
201	Minglun	Yajing	0200	0001	108°21'43.143"E25°16'32.155"N	108°21'19.817"E25°16'13.073"N	108°21'19.817"E25°16'13.073"N	108°21'27.329"E25°16'48.920"N
202	Minglun	Yajing	0200	0019	108°22'4.801"E25°16'16.447"N	108°22'0.978"E25°16'9.684"N	108°21'44.037"E25°16'17.570"N	108°21'51.927"E25°16'23.690"N
203	Xia'nan	Tangba	0300	0006	108°0'36.427"E24°55'7.641"N	108°0'22.442"E24°54'49.750"N	108°0'21.141"E24°54'51.294"N	108°0'30.877"E24°55'13.394"N
204	Huashan Forest Farm	Huanshan Branch Farm	0700	0026	108°18'16.141"E25°7'12.312"N	108°18'8.409"E25°7'2.657"N	108°18'5.548"E25°7'5.207"N	108°18'15.956"E25°7'12.699"N
205	Huashan Forest Farm	Yalong Branch Farm	0700	0046	108°34'10.429"E25°0'49.323"N	108°34'5.972"E25°0'41.301"N	108°33'53.315"E25°0'48.813"N	108°34'7.106"E25°0'53.333"N
206	Da'an	Huanjie	0100	0016	108°19'14.546"E25°1'18.274"N	108°19'9.103"E25°1'8.558"N	108°19'0.186"E25°1'31.247"N	108°19'4.679"E25°1'34.995"N
207	Da'an	Huanjie	0900	0043	108°18'41.479"E24°59'22.382"N	108°18'37.483"E24°59'20.018"N	108°18'30.367"E24°59'26.731"N	108°18'33.181"E24°59'34.783"N
208	Chuanshan	Gubin	0200	0015	108°9'26.413"E25°5'18.776"N	108°9'13.807"E25°5'2.613"N	108°9'10.374"E25°5'9.077"N	108°9'21.453"E25°5'20.992"N
209	Minglun	Minglun	2200	0053	108°20'38.756"E25°9'51.169"N	108°20'20.351"E25°9'37.611"N	108°20'17.684"E25°9'44.565"N	108°20'24.507"E25°9'54.515"N
210	Minglun	Minglun	2300	0027	108°21'50.187"E25°9'54.905"N	108°21'34.509"E25°9'40.387"N	108°21'28.228"E25°10'18.887"N	108°21'32.481"E25°10'20.044"N

211	Changmei	Neitong	0300	0035	108°28'59.239"E25°1'41.725"N	108°28'46.705"E25°1'27.827"N	108°28'35.350"E25°1'47.885"N	108°28'35.703"E25°1'48.080"N
212	Longyan	Dake	0400	0040	108°34'32.111"E25°18'37.730"N	108°34'28.206"E25°18'35.060"N	108°34'16.397"E25°18'43.540"N	108°34'17.214"E25°18'47.664"N
213	Longyan	Huangzhong	0700	0066	108°26'4.099"E25°25'48.438"N	108°25'53.653"E25°25'39.947"N	108°25'42.191"E25°25'47.652"N	108°25'54.680"E25°25'53.781"N
214	Dongxing	Dongxing	0500	0017	108°33'29.527"E25°10'9.543"N	108°33'26.459"E25°10'2.904"N	108°33'7.926"E25°10'10.878"N	108°33'25.716"E25°10'15.927"N
215	Dongxing	Dongxing	1100	0043	108°31'19.764"E25°9'48.329"N	108°31'11.888"E25°9'45.475"N	108°31'3.017"E25°9'58.346"N	108°31'8.679"E25°10'2.605"N
216	Dongxing	Dongxing	1200	0033	108°30'46.987"E25°10'20.634"N	108°30'32.055"E25°10'6.368"N	108°30'25.712"E25°10'14.251"N	108°30'36.075"E25°10'24.449"N
217	Dongxing	Dongxing Forest Farm	0100	0030	108°34'9.370"E25°10'48.878"N	108°34'0.623"E25°10'27.913"N	108°33'56.382"E25°10'35.810"N	108°34'6.933"E25°10'50.690"N
218	Dongxing	Jiudeng	0200	0009	108°36'2.075"E25°10'4.282"N	108°35'50.745"E25°9'56.139"N	108°35'44.007"E25°9'57.882"N	108°35'45.252"E25°10'7.918"N
219	Dongxing	Jiudeng	0300	0019	108°36'27.851"E25°9'14.032"N	108°36'25.803"E25°9'3.874"N	108°36'5.358"E25°9'12.312"N	108°36'22.311"E25°9'26.706"N
220	Dongxing	Jiudeng	0400	0015	108°37'21.181"E25°9'4.865"N	108°37'14.576"E25°8'58.957"N	108°37'5.068"E25°9'11.492"N	108°37'5.732"E25°9'13.629"N
221	Dongxing	Jiudeng	1400	0021	108°34'39.477"E25°8'17.253"N	108°34'29.578"E25°7'58.799"N	108°34'20.804"E25°8'4.214"N	108°34'37.458"E25°8'17.368"N
222	Dongxing	Jiudeng	1600	0038	108°35'18.626"E25°7'41.465"N	108°35'14.745"E25°7'33.511"N	108°35'7.599"E25°7'48.553"N	108°35'12.514"E25°7'54.070"N
223	Dongxing	Jiudeng	1700	0028	108°36'35.378"E25°7'54.410"N	108°36'26.789"E25°7'44.120"N	108°36'21.722"E25°7'54.175"N	108°36'23.432"E25°8'0.679"N
224	Dongxing	Jiuxing	0500	0017	108°31'42.977"E25°6'6.909"N	108°31'15.091"E25°5'56.533"N	108°31'11.293"E25°5'58.840"N	108°31'35.450"E25°6'16.857"N
225	Dongxing	Jiuxing	0700	0016	108°32'23.659"E25°5'20.505"N	108°32'11.579"E25°5'8.823"N	108°32'7.136"E25°5'23.417"N	108°32'12.673"E25°5'30.059"N
226	Dongxing	Jiuxing	0800	0018	108°33'16.865"E25°4'38.734"N	108°33'5.727"E25°4'33.996"N	108°32'48.683"E25°4'45.011"N	108°32'57.002"E25°4'48.437"N
227	Dongxing	Ping'an	3000	0024	108°39'49.065"E25°7'32.476"N	108°39'39.902"E25°7'18.252"N	108°39'28.844"E25°7'25.814"N	108°39'48.571"E25°7'33.903"N
228	Dongxing	Ping'an	3400	0042	108°41'55.440"E25°6'8.766"N	108°41'35.370"E25°5'44.721"N	108°41'34.924"E25°5'45.067"N	108°41'48.625"E25°6'10.088"N
229	Dongxing	Ping'an	3500	0032	108°41'13.803"E25°5'40.001"N	108°40'55.956"E25°5'37.040"N	108°40'53.013"E25°5'49.560"N	108°41'3.342"E25°5'57.213"N
230	Dongxing	Ping'an	4500	0008	108°41'34.318"E25°5'20.771"N	108°41'33.040"E25°5'16.277"N	108°41'23.402"E25°5'21.177"N	108°41'30.264"E25°5'28.592"N
231	Dongxing	Ping'an	5000	0005	108°39'50.512"E25°4'28.600"N	108°39'50.311"E25°4'16.053"N	108°39'33.231"E25°4'29.963"N	108°39'34.484"E25°4'30.569"N
232	Dongxing	Caille	0100	0081	108°33'14.190"E25°7'40.098"N	108°33'7.771"E25°7'37.906"N	108°32'42.356"E25°7'45.722"N	108°32'51.420"E25°7'49.013"N
233	Dongxing	Caille	0300	0003	108°33'35.623"E25°6'56.174"N	108°33'18.881"E25°6'42.911"N	108°33'13.456"E25°6'44.362"N	108°33'32.878"E25°6'59.639"N
234	Dongxing	Biaoshan	0100	0016	108°37'17.180"E25°15'3.760"N	108°36'56.510"E25°14'51.165"N	108°36'52.938"E25°14'55.004"N	108°37'5.980"E25°15'13.708"N
235	Dongxing	Biaoshan	0400	0006	108°37'38.742"E25°14'14.221"N	108°37'37.743"E25°14'12.560"N	108°37'7.814"E25°14'19.963"N	108°37'30.820"E25°14'31.318"N
236	Dongxing	Biaoshan	0500	0010	108°37'34.227"E25°13'53.976"N	108°37'34.208"E25°13'53.694"N	108°37'21.100"E25°14'0.455"N	108°37'26.529"E25°14'6.912"N
237	Dongxing	Biaoshan	1000	0013	108°34'34.446"E25°13'14.935"N	108°34'28.072"E25°13'8.402"N	108°34'12.513"E25°13'20.420"N	108°34'24.519"E25°13'27.695"N

238	Dongxing	Biaoshan	2300	0055	108°37'39.716"E25°11'33.247"N	108°37'31.616"E25°11'31.463"N	108°37'26.318"E25°11'33.507"N	108°37'34.243"E25°11'42.220"N
239	Dongxing	Biaoshan	2600	0034	108°35'31.689"E25°11'30.989"N	108°35'9.693"E25°11'20.070"N	108°35'1.129"E25°11'22.740"N	108°35'14.867"E25°11'33.037"N
240	Dongxing	Biaoshan	2700	0009	108°34'42.933"E25°11'46.816"N	108°34'31.892"E25°11'27.822"N	108°34'27.265"E25°11'28.997"N	108°34'42.583"E25°11'50.573"N
241	Dongxing	Biaoshan	3000	0011	108°35'45.652"E25°11'9.458"N	108°35'43.028"E25°11'5.246"N	108°35'24.993"E25°11'7.823"N	108°35'39.920"E25°11'15.736"N
242	Dongxing	Duya	0100	0003	108°26'56.850"E25°4'27.933"N	108°26'45.594"E25°4'20.138"N	108°26'33.735"E25°4'26.333"N	108°26'54.327"E25°4'29.609"N
243	Dongxing	Duya	0100	0017	108°27'15.858"E25°4'8.651"N	108°27'13.509"E25°4'8.058"N	108°26'55.968"E25°4'20.796"N	108°27'1.343"E25°4'23.288"N
244	Dongxing	Duya	2000	0040	108°31'45.530"E25°2'27.862"N	108°31'42.451"E25°2'20.603"N	108°31'36.401"E25°2'22.856"N	108°31'36.875"E25°2'31.665"N
245	Dongxing	Duya	2000	0054	108°33'8.998"E25°2'17.850"N	108°32'53.920"E25°2'6.881"N	108°32'51.918"E25°2'12.123"N	108°32'57.209"E25°2'21.473"N
246	Dongxing	Duya	2100	0030	108°32'11.940"E25°1'43.935"N	108°32'0.439"E25°1'39.106"N	108°31'36.945"E25°1'47.890"N	108°31'46.173"E25°1'54.590"N
247	Dongxing	Chashan	2100	0003	108°33'34.815"E25°15'9.933"N	108°33'33.443"E25°15'9.723"N	108°33'21.465"E25°15'17.798"N	108°33'27.866"E25°15'21.795"N
248	Dongxing	Chashan	2600	0020	108°33'15.415"E25°14'28.814"N	108°33'10.374"E25°14'21.112"N	108°33'2.730"E25°14'27.792"N	108°33'8.617"E25°14'33.879"N
249	Dongxing	Chashan	2800	0029	108°32'42.025"E25°13'58.416"N	108°32'33.815"E25°13'41.254"N	108°32'22.399"E25°13'46.147"N	108°32'40.393"E25°13'59.471"N
250	Dongxing	Daxing	1700	0004	108°38'9.437"E25°5'15.132"N	108°37'21.749"E25°4'54.321"N	108°37'20.980"E25°4'54.652"N	108°37'48.217"E25°5'20.967"N
251	Dongxing	Daxing	1700	0031	108°37'59.900"E25°4'34.718"N	108°37'50.439"E25°4'27.617"N	108°37'29.488"E25°4'34.111"N	108°37'46.359"E25°4'40.952"N
252	Dongxing	Daxing	1800	0035	108°37'9.280"E25°4'9.741"N	108°37'1.836"E25°4'5.345"N	108°36'46.776"E25°4'16.164"N	108°36'51.706"E25°4'20.298"N
253	Dongxing	Longcheng	0300	0035	108°36'11.011"E25°4'29.056"N	108°36'4.920"E25°4'24.907"N	108°36'0.953"E25°4'33.253"N	108°36'3.893"E25°4'35.021"N
254	Dongxing	Longcheng	1200	0012	108°33'31.169"E25°6'5.898"N	108°33'28.535"E25°6'4.781"N	108°33'14.146"E25°6'13.780"N	108°33'17.212"E25°6'17.000"N
255	Dongxing	Longcheng	1200	0020	108°33'20.538"E25°5'51.683"N	108°33'16.386"E25°5'45.986"N	108°33'4.257"E25°6'10.707"N	108°33'8.453"E25°6'12.942"N
256	Dongxing	Longcheng	1300	0045	108°33'31.361"E25°3'45.898"N	108°33'24.131"E25°3'38.286"N	108°33'20.328"E25°3'48.657"N	108°33'23.906"E25°3'54.938"N
257	Dongxing	Longcheng	1400	0055	108°32'50.630"E25°3'19.208"N	108°32'42.656"E25°3'7.083"N	108°32'41.729"E25°3'7.131"N	108°32'43.118"E25°3'24.657"N
258	Dongxing	Longcheng	1700	0003	108°35'33.450"E25°3'34.562"N	108°35'22.970"E25°3'28.367"N	108°35'7.120"E25°3'45.361"N	108°35'11.060"E25°3'48.376"N
259	Dongxing	Longcheng	1700	0066	108°34'54.768"E25°3'15.652"N	108°34'34.084"E25°2'53.484"N	108°34'22.383"E25°2'57.318"N	108°34'53.103"E25°3'16.983"N
260	Dongxing	Longcheng	1900	0075	108°34'32.577"E25°2'9.100"N	108°34'28.284"E25°2'0.213"N	108°34'11.801"E25°2'8.129"N	108°34'24.281"E25°2'25.318"N
261	Dongxing	Longcheng	1900	0104	108°34'28.284"E25°2'0.213"N	108°34'21.072"E25°1'59.469"N	108°34'11.626"E25°2'1.404"N	108°34'18.133"E25°2'11.063"N
262	Huashan Forest Farm	Huanshan Branch Farm	0500	0032	108°16'55.178"E25°7'57.864"N	108°16'51.959"E25°7'50.391"N	108°16'46.446"E25°7'52.344"N	108°16'51.077"E25°7'59.171"N
263	Huashan Forest Farm	Yalong Branch Farm	0600	0002	108°35'55.747"E25°2'17.683"N	108°35'46.628"E25°2'12.070"N	108°35'32.585"E25°2'14.539"N	108°35'34.572"E25°2'23.188"N
264	Tiancai	Tongjin	0900	0017	108°19'10.281"E24°45'16.473"N	108°19'9.342"E24°45'14.522"N	108°18'58.924"E24°45'28.575"N	108°19'4.802"E24°45'35.587"N

265	Tiancai	Tongjin	1000	0018	108°19'55.132"E24°45'4.789"N	108°19'52.464"E24°45'0.427"N	108°19'35.671"E24°45'3.513"N	108°19'43.542"E24°45'18.279"N
266	Chuanshan	Xiafeng	0600	0029	108°2'34.808"E25°3'39.699"N	108°2'21.786"E25°3'29.812"N	108°2'15.114"E25°3'39.698"N	108°2'24.284"E25°3'43.894"N
267	Chuanshan	Xiajiu	0400	0025	108°0'54.529"E25°2'1.787"N	108°0'51.546"E25°1'59.844"N	108°0'36.127"E25°2'8.619"N	108°0'37.298"E25°2'15.704"N
268	Chuanshan	Xiajiu	0400	0044	108°0'45.543"E25°1'53.998"N	108°0'37.956"E25°1'51.954"N	108°0'32.710"E25°2'4.578"N	108°0'38.166"E25°2'6.813"N
269	Chuanshan	Xiagan	0600	0022	108°1'18.580"E25°2'32.334"N	108°1'9.561"E25°2'27.279"N	108°1'5.385"E25°2'31.819"N	108°1'11.998"E25°2'37.532"N
270	Chuanshan	Leyi	0500	0005	108°1'14.500"E25°6'29.807"N	108°1'6.583"E25°6'26.823"N	108°1'0.780"E25°6'41.204"N	108°1'4.876"E25°6'44.938"N
271	Chuanshan	Leyi	0600	0059	108°1'0.517"E25°6'1.698"N	108°0'53.196"E25°5'53.854"N	108°0'49.895"E25°5'57.640"N	108°0'57.355"E25°6'4.495"N
272	Chuanshan	Wuwei	1400	0036	108°6'19.864"E25°5'19.901"N	108°6'3.688"E25°5'6.107"N	108°6'1.511"E25°5'10.061"N	108°6'18.379"E25°5'22.730"N
273	Chuanshan	Hedun	0200	0064	108°8'29.132"E25°10'4.423"N	108°8'19.479"E25°9'59.641"N	108°8'17.596"E25°10'7.593"N	108°8'26.953"E25°10'18.823"N
274	Chuanshan	Hedun	1100	0002	108°7'38.756"E25°10'18.226"N	108°7'16.053"E25°10'8.389"N	108°7'14.481"E25°10'10.563"N	108°7'30.092"E25°10'24.450"N
275	Chuanshan	Gubin	0100	0035	108°10'9.989"E25°5'49.134"N	108°10'3.584"E25°5'26.415"N	108°9'57.556"E25°5'28.066"N	108°10'8.427"E25°5'49.905"N
276	Chuanshan	Gubin	1000	0040	108°9'57.817"E25°2'15.353"N	108°9'53.360"E25°2'4.118"N	108°9'43.479"E25°2'18.006"N	108°9'54.126"E25°2'22.315"N
277	Chuanshan	Gubin	1100	0022	108°8'51.602"E25°3'7.360"N	108°8'46.560"E25°2'58.637"N	108°8'35.043"E25°3'3.584"N	108°8'44.689"E25°3'12.026"N
278	Chuanshan	Tongban	0300	0037	108°4'20.676"E25°1'1.314"N	108°4'15.521"E25°0'55.887"N	108°4'12.790"E25°0'57.436"N	108°4'15.697"E25°1'6.398"N
279	Chuanshan	Tangwan	0300	0045	108°2'44.169"E25°0'37.726"N	108°2'38.828"E25°0'36.850"N	108°2'18.246"E25°0'45.480"N	108°2'29.715"E25°0'51.742"N
280	Chuanshan	Tangwan	0400	0012	108°2'39.578"E25°0'18.703"N	108°2'28.630"E25°0'6.909"N	108°2'26.268"E25°0'15.513"N	108°2'29.981"E25°0'21.715"N
281	Chuanshan	Tangwan	0400	0017	108°3'1.389"E25°0'14.643"N	108°2'54.754"E25°0'1.157"N	108°2'42.287"E25°0'6.986"N	108°2'56.455"E25°0'17.061"N
282	Chuanshan	Tangwan	0400	0030	108°3'1.875"E24°59'57.411"N	108°2'39.823"E24°59'46.306"N	108°2'35.037"E24°59'59.427"N	108°2'40.284"E25°0'2.076"N
283	Chuanshan	Tangwan	0500	0055	108°0'43.168"E25°0'19.390"N	108°0'33.309"E25°0'5.050"N	108°0'29.683"E25°0'7.519"N	108°0'37.735"E25°0'22.463"N
284	Chuanshan	Tangwan	0600	0018	108°1'46.497"E24°59'46.571"N	108°1'36.898"E24°59'36.121"N	108°1'33.580"E24°59'39.406"N	108°1'37.514"E24°59'58.025"N
285	Chuanshan	Linlang	0700	0052	108°5'46.017"E25°0'26.316"N	108°5'40.873"E25°0'24.349"N	108°5'37.878"E25°0'27.208"N	108°5'42.682"E25°0'31.149"N
286	Chuanshan	Youdong	0400	0022	108°5'0.849"E25°4'17.965"N	108°4'49.967"E25°4'8.658"N	108°4'48.541"E25°4'14.708"N	108°4'53.835"E25°4'23.176"N
287	Chuanshan	Shacun	2800	0110	108°5'19.903"E25°6'5.466"N	108°5'6.005"E25°5'57.842"N	108°5'1.480"E25°6'0.358"N	108°5'8.206"E25°6'9.047"N
288	Chuanshan	Chajiang	0200	0072	108°2'9.509"E25°2'19.272"N	108°2'5.591"E25°2'17.284"N	108°1'58.927"E25°2'17.628"N	108°2'4.030"E25°2'25.854"N
289	Chuanshan	Chajiang	0300	0102	108°3'17.878"E25°2'9.988"N	108°3'1.557"E25°2'1.112"N	108°3'0.518"E25°2'2.424"N	108°3'15.224"E25°2'11.504"N
290	Si'en	Zhongshan	0900	0001	108°15'6.240"E24°54'3.533"N	108°15'2.804"E24°54'2.908"N	108°14'50.342"E24°54'21.056"N	108°14'52.449"E24°54'21.861"N
291	Si'en	Chengguan	0700	0028	108°15'34.937"E24°48'11.492"N	108°15'29.600"E24°48'10.129"N	108°15'24.660"E24°48'20.430"N	108°15'28.286"E24°48'28.982"N

292	Si'en	Wenhua	0700	0012	108°15'43.444"E24°47'39.860"N	108°15'36.435"E24°47'34.954"N	108°15'26.363"E24°47'48.192"N	108°15'36.992"E24°47'56.337"N
293	Si'en	Naihe	0200	0075	108°13'15.410"E24°49'13.914"N	108°13'7.338"E24°49'7.212"N	108°13'6.190"E24°49'8.056"N	108°13'14.214"E24°49'16.775"N
294	Si'en	Naihe	0300	0049	108°12'54.942"E24°49'36.931"N	108°12'39.753"E24°49'26.965"N	108°12'36.443"E24°49'31.234"N	108°12'50.413"E24°49'40.172"N
295	Si'en	Xinan	0700	0009	108°10'58.212"E24°50'8.158"N	108°10'47.307"E24°49'56.218"N	108°10'37.316"E24°50'2.173"N	108°10'56.978"E24°50'9.571"N
296	Si'en	Chenshuang	0200	0081	108°13'4.580"E24°55'16.284"N	108°12'51.612"E24°55'8.187"N	108°12'44.760"E24°55'18.309"N	108°12'59.432"E24°55'23.084"N
297	Si'en	Chenshuang	0400	0139	108°12'37.479"E24°54'22.943"N	108°12'32.569"E24°54'10.064"N	108°12'24.838"E24°54'23.757"N	108°12'32.705"E24°54'25.256"N
298	Minglun	Minglun	0800	0034	108°23'4.594"E25°11'56.825"N	108°23'3.729"E25°11'55.796"N	108°22'43.993"E25°12'1.374"N	108°22'50.474"E25°12'5.219"N
299	Minglun	Minglun	1800	0018	108°23'52.582"E25°11'28.889"N	108°23'45.857"E25°11'23.979"N	108°23'29.910"E25°11'31.994"N	108°23'41.696"E25°11'33.539"N
300	Minglun	Minglun	2100	0019	108°20'1.231"E25°10'8.882"N	108°20'0.281"E25°10'7.767"N	108°19'45.338"E25°10'16.757"N	108°19'51.423"E25°10'19.535"N
301	Minglun	Minglun	2200	0027	108°21'21.127"E25°10'38.111"N	108°21'8.445"E25°10'37.394"N	108°21'1.101"E25°10'40.289"N	108°21'14.225"E25°10'51.187"N
302	Minglun	Minglun	2200	0054	108°20'34.966"E25°9'50.474"N	108°20'25.987"E25°9'36.460"N	108°20'20.344"E25°9'37.970"N	108°20'26.767"E25°9'51.368"N
303	Minglun	Liuping	0500	0012	108°22'49.456"E25°4'7.166"N	108°22'45.457"E25°4'5.048"N	108°22'28.804"E25°4'9.850"N	108°22'30.307"E25°4'16.545"N
304	Minglun	Liuping	0800	0006	108°23'5.987"E25°3'1.991"N	108°22'51.562"E25°2'58.947"N	108°22'45.733"E25°3'1.000"N	108°23'1.053"E25°3'11.013"N
305	Minglun	Cuishan	0500	0018	108°22'16.197"E25°17'58.265"N	108°22'14.010"E25°17'54.017"N	108°21'47.960"E25°18'18.273"N	108°21'48.772"E25°18'18.870"N
306	Minglun	Haodong	0500	0018	108°24'3.319"E25°8'25.915"N	108°24'0.685"E25°8'22.861"N	108°23'53.146"E25°8'23.192"N	108°24'2.648"E25°8'28.154"N
307	Minglun	Haodong	0900	0020	108°20'49.490"E25°8'7.498"N	108°20'49.335"E25°8'3.067"N	108°20'35.232"E25°8'9.929"N	108°20'44.133"E25°8'10.298"N
308	Shuiyuan	Sanmei	0100	0006	108°7'32.852"E24°52'39.264"N	108°7'29.702"E24°52'37.719"N	108°7'22.709"E24°52'38.481"N	108°7'29.126"E24°52'45.269"N
309	Shuiyuan	Sanmei	0500	0025	108°8'35.758"E24°51'26.592"N	108°8'31.145"E24°51'13.072"N	108°8'26.351"E24°51'19.073"N	108°8'35.006"E24°51'29.035"N
310	Shuiyuan	Sanmei	0500	0059	108°8'13.065"E24°51'3.106"N	108°7'57.789"E24°50'55.861"N	108°7'55.047"E24°50'57.443"N	108°8'3.680"E24°51'7.942"N
311	Shuiyuan	Zhongjian	1000	0055	108°9'50.818"E24°52'34.913"N	108°9'45.580"E24°52'29.609"N	108°9'43.470"E24°52'38.188"N	108°9'45.792"E24°52'41.730"N
312	Shuiyuan	Heping	0400	0059	108°8'28.088"E24°56'15.073"N	108°8'18.402"E24°56'6.194"N	108°8'10.749"E24°56'18.817"N	108°8'15.044"E24°56'22.629"N
313	Luoyang	Tuanjie	0200	0029	108°9'55.196"E24°56'55.002"N	108°9'53.759"E24°56'53.965"N	108°9'37.793"E24°56'59.479"N	108°9'50.212"E24°57'4.989"N
314	Luoyang	Tuanjie	0400	0110	108°9'44.299"E24°55'56.387"N	108°9'40.921"E24°55'54.149"N	108°9'32.663"E24°56'6.108"N	108°9'42.034"E24°56'7.745"N
315	Luoyang	Dimeng	0500	0020	108°13'34.009"E25°5'49.227"N	108°13'16.201"E25°5'17.933"N	108°13'2.346"E25°5'22.512"N	108°13'31.696"E25°5'50.793"N
316	Luoyang	Dimeng	0900	0062	108°12'43.521"E25°5'8.406"N	108°12'40.435"E25°5'3.537"N	108°12'31.084"E25°5'6.241"N	108°12'38.330"E25°5'12.270"N
317	Luoyang	Dimeng	0900	0066	108°12'45.307"E25°4'53.629"N	108°12'44.353"E25°4'47.987"N	108°12'33.552"E25°5'4.446"N	108°12'35.893"E25°5'4.948"N
318	Luoyang	Dimeng	1200	0022	108°14'0.309"E25°4'42.976"N	108°13'53.232"E25°4'33.670"N	108°13'44.261"E25°4'41.543"N	108°13'47.029"E25°4'49.370"N

319	Luoyang	Miaoshi	0200	0021	108°9'21.192"E25°1'28.643"N	108°9'12.461"E25°1'24.349"N	108°8'54.297"E25°1'33.522"N	108°9'1.593"E25°1'40.697"N
320	Luoyang	Miaoshi	0800	0074	108°9'36.949"E24°59'48.057"N	108°9'32.976"E24°59'45.567"N	108°9'26.298"E25°0'10.289"N	108°9'28.524"E25°0'11.017"N
321	Luoyang	Miaoshi	1300	0088	108°8'21.864"E24°58'39.488"N	108°8'1.558"E24°58'32.331"N	108°7'56.019"E24°58'39.492"N	108°8'12.005"E24°58'47.607"N
322	Luoyang	Wenya	0100	0008	108°14'57.110"E25°16'51.924"N	108°14'37.757"E25°16'49.550"N	108°14'33.403"E25°16'52.750"N	108°14'47.557"E25°17'0.749"N
323	Luoyang	Pule	0200	0023	108°11'48.686"E25°1'50.202"N	108°11'42.777"E25°1'42.018"N	108°11'38.340"E25°1'49.251"N	108°11'43.355"E25°1'52.239"N
324	Luoyang	Pule	0800	0033	108°12'49.032"E25°0'3.227"N	108°12'40.789"E24°59'37.015"N	108°12'23.850"E24°59'44.579"N	108°12'49.032"E25°0'3.227"N
325	Luoyang	Yong'an	0700	0021	108°11'47.260"E25°9'2.894"N	108°11'42.268"E25°8'48.639"N	108°11'35.875"E25°9'3.209"N	108°11'46.485"E25°9'8.054"N
326	Luoyang	Yong'an	1200	0042	108°12'16.864"E25°7'42.083"N	108°12'6.450"E25°7'36.969"N	108°12'1.734"E25°7'39.368"N	108°12'6.861"E25°7'46.496"N
327	Luoyang	Yongquan	0600	0020	108°19'53.192"E25°7'30.891"N	108°19'38.467"E25°7'22.799"N	108°19'33.907"E25°7'30.632"N	108°19'43.546"E25°7'35.892"N
328	Luoyang	Yongquan	1800	0088	108°14'29.964"E25°6'4.938"N	108°14'26.555"E25°6'0.000"N	108°14'24.204"E25°6'10.076"N	108°14'26.672"E25°6'13.530"N
329	Luoyang	Yongquan	2800	0001	108°19'47.329"E25°5'34.745"N	108°19'39.676"E25°5'28.996"N	108°19'32.959"E25°5'36.112"N	108°19'42.971"E25°5'40.938"N
330	Luoyang	Yongquan	2900	0109	108°17'51.569"E25°5'10.659"N	108°17'22.147"E25°4'44.641"N	108°17'22.128"E25°4'44.642"N	108°17'51.183"E25°5'10.664"N
331	Luoyang	Yuhe	0300	0090	108°14'19.597"E25°3'55.489"N	108°14'8.818"E25°3'50.582"N	108°14'7.372"E25°4'0.411"N	108°14'12.746"E25°4'2.501"N
332	Luoyang	Yuhe	0400	0005	108°16'28.859"E25°4'36.995"N	108°16'23.507"E25°4'25.297"N	108°16'18.421"E25°4'39.085"N	108°16'20.886"E25°4'54.159"N
333	Luoyang	Yuhe	0400	0032	108°15'43.235"E25°4'16.479"N	108°15'39.546"E25°4'13.379"N	108°15'31.724"E25°4'16.017"N	108°15'35.969"E25°4'19.947"N
334	Luoyang	Yuhe	0600	0011	108°14'47.458"E25°3'32.069"N	108°14'33.575"E25°3'17.381"N	108°14'32.539"E25°3'20.599"N	108°14'37.481"E25°3'33.219"N
335	Luoyang	Yamai	0600	0004	108°12'35.779"E25°12'27.427"N	108°12'22.532"E25°12'10.444"N	108°12'10.905"E25°12'15.815"N	108°12'31.637"E25°12'31.601"N
336	Changmei	Neitong	0200	0022	108°28'1.038"E25°1'28.013"N	108°27'58.802"E25°1'27.094"N	108°27'40.134"E25°1'40.758"N	108°27'46.032"E25°1'51.560"N
337	Changmei	Neitong	1100	0001	108°35'13.419"E25°0'35.246"N	108°35'5.621"E25°0'31.312"N	108°34'35.700"E25°0'35.271"N	108°34'49.275"E25°0'45.893"N
338	Changmei	Neitong	1500	0020	108°32'5.709"E25°0'33.396"N	108°32'5.267"E25°0'33.350"N	108°31'52.257"E25°0'37.901"N	108°31'59.465"E25°0'46.563"N
339	Changmei	Neitong	1700	0017	108°29'40.784"E25°1'23.891"N	108°29'38.448"E25°1'19.136"N	108°29'14.905"E25°1'36.373"N	108°29'15.710"E25°1'39.075"N
340	Xunle	Quan'an	1200	0028	108°16'58.729"E25°22'12.697"N	108°16'52.447"E25°22'5.296"N	108°16'46.260"E25°22'14.256"N	108°16'51.520"E25°22'24.991"N
341	Xunle	Quan'an	1400	0045	108°18'3.733"E25°21'43.101"N	108°18'1.040"E25°21'32.367"N	108°17'49.503"E25°21'47.192"N	108°17'55.901"E25°21'50.948"N
342	Xunle	Beishan	2000	0031	108°8'57.579"E25°14'23.581"N	108°8'50.327"E25°14'20.212"N	108°8'37.128"E25°14'41.974"N	108°8'38.565"E25°14'45.051"N
343	Xunle	Shangang	1500	0046	108°18'50.456"E25°30'35.118"N	108°18'35.021"E25°30'25.415"N	108°18'35.021"E25°30'25.415"N	108°18'50.093"E25°30'36.315"N
344	Xunle	Shangang	2000	0002	108°18'34.702"E25°29'2.979"N	108°18'17.461"E25°28'43.732"N	108°18'9.086"E25°28'51.453"N	108°18'34.702"E25°29'2.979"N
345	Xunle	Shangang	2700	0047	108°23'39.627"E25°28'42.049"N	108°23'28.331"E25°28'28.794"N	108°23'21.568"E25°28'39.328"N	108°23'39.145"E25°28'42.317"N

346	Xunle	Kangning	0700	0004	108°13'15.502"E25°26'29.638"N	108°13'10.027"E25°26'29.027"N	108°12'52.542"E25°26'35.043"N	108°13'0.696"E25°26'45.387"N
347	Xunle	Kangning	1000	0007	108°12'32.314"E25°25'53.688"N	108°12'31.158"E25°25'49.359"N	108°12'12.909"E25°25'57.009"N	108°12'14.723"E25°26'1.941"N
348	Xunle	Fushou	1000	0023	108°15'1.089"E25°23'45.672"N	108°14'30.016"E25°23'40.527"N	108°14'14.344"E25°23'53.969"N	108°14'28.919"E25°24'3.756"N
349	Xunle	Zhenbei	0100	0024	108°16'52.763"E25°28'42.013"N	108°16'36.696"E25°28'15.218"N	108°16'32.472"E25°28'18.990"N	108°16'49.872"E25°28'44.858"N
350	Xunle	Changbei	0100	0031	108°17'32.851"E25°28'3.029"N	108°17'30.300"E25°28'0.126"N	108°17'10.167"E25°28'15.100"N	108°17'10.358"E25°28'19.682"N
351	Xunle	Changbei	0500	0042	108°19'30.010"E25°26'45.916"N	108°19'20.139"E25°26'41.278"N	108°19'17.074"E25°26'48.180"N	108°19'26.164"E25°26'52.517"N
352	Xunle	Changbei	1800	0009	108°17'53.948"E25°25'20.069"N	108°17'40.410"E25°25'14.111"N	108°17'30.073"E25°25'27.192"N	108°17'32.244"E25°25'30.145"N
353	Xunle	Shunning	0400	0048	108°12'49.575"E25°24'35.709"N	108°12'45.147"E25°24'20.950"N	108°12'32.639"E25°24'30.995"N	108°12'39.139"E25°24'38.062"N
354	Longyan	Guangrong	0100	0166	108°24'41.027"E25°22'1.120"N	108°24'29.357"E25°21'50.374"N	108°24'21.742"E25°21'56.033"N	108°24'37.487"E25°22'2.732"N
355	Longyan	Ganyan	1100	0042	108°29'46.397"E25°23'18.955"N	108°29'42.216"E25°23'14.879"N	108°29'37.650"E25°23'19.293"N	108°29'42.451"E25°23'20.843"N
356	Longyan	Chaoge	0100	0007	108°31'54.739"E25°24'38.310"N	108°31'37.979"E25°24'24.648"N	108°31'32.856"E25°24'28.177"N	108°31'48.214"E25°24'41.674"N
357	Longyan	Chaoge	0700	0002	108°31'2.460"E25°23'38.907"N	108°30'44.825"E25°23'33.492"N	108°30'34.534"E25°23'42.436"N	108°30'52.401"E25°23'49.420"N
358	Longyan	Chaoge	0700	0005	108°31'9.531"E25°23'37.241"N	108°30'54.770"E25°23'26.575"N	108°30'44.825"E25°23'33.492"N	108°30'51.753"E25°23'39.212"N
359	Longyan	Chaoge	1000	0076	108°33'27.447"E25°21'53.936"N	108°33'11.151"E25°21'36.641"N	108°32'58.824"E25°22'2.407"N	108°33'0.195"E25°22'6.601"N
360	Longyan	Chaoge	1200	0138	108°31'50.076"E25°21'16.460"N	108°31'49.535"E25°21'16.146"N	108°31'22.395"E25°21'27.046"N	108°31'33.717"E25°21'32.847"N
361	Longyan	Dake	1700	0019	108°31'27.083"E25°18'11.010"N	108°31'22.851"E25°17'59.970"N	108°31'18.792"E25°18'1.225"N	108°31'25.531"E25°18'12.921"N
362	Longyan	Dake	2100	0083	108°31'49.410"E25°16'47.102"N	108°31'45.868"E25°16'45.230"N	108°31'31.046"E25°16'56.444"N	108°31'36.897"E25°17'0.626"N
363	Chuanshan	Wuwei	0100	0042	108°7'27.493"E25°7'46.970"N	108°7'20.971"E25°7'34.629"N	108°7'16.752"E25°7'39.076"N	108°7'24.485"E25°7'48.697"N
364	Chuanshan	Wuwei	0400	0030	108°6'50.208"E25°7'0.409"N	108°6'44.158"E25°6'53.033"N	108°6'35.152"E25°7'0.662"N	108°6'39.629"E25°7'7.431"N
365	Chuanshan	Wuwei	1100	0061	108°8'49.305"E25°6'5.850"N	108°8'41.664"E25°5'59.634"N	108°8'37.972"E25°6'2.841"N	108°8'41.679"E25°6'12.744"N
366	Chuanshan	Hedun	0700	0018	108°5'0.683"E25°8'59.033"N	108°4'41.024"E25°8'52.606"N	108°4'34.377"E25°9'2.381"N	108°4'39.199"E25°9'15.433"N
367	Minglun	Bamian	0700	0008	108°21'41.853"E25°5'34.061"N	108°21'34.855"E25°5'31.881"N	108°21'34.841"E25°5'33.958"N	108°21'36.915"E25°5'40.435"N
368	Minglun	Liuping	0800	0014	108°22'34.013"E25°2'54.090"N	108°22'33.224"E25°2'50.979"N	108°22'27.324"E25°3'1.495"N	108°22'30.435"E25°3'4.137"N
369	Minglun	Hekuang	0700	0005	108°27'6.374"E25°5'51.879"N	108°27'3.833"E25°5'51.168"N	108°26'50.659"E25°5'53.394"N	108°27'4.990"E25°6'4.781"N
370	Minglun	Cuishan	0100	0040	108°21'13.934"E25°19'37.857"N	108°20'46.814"E25°19'26.865"N	108°20'46.119"E25°19'27.282"N	108°21'5.462"E25°19'40.381"N
371	Minglun	Cuishan	0300	0023	108°21'24.093"E25°18'45.579"N	108°21'9.047"E25°18'32.796"N	108°21'5.051"E25°18'39.638"N	108°21'17.069"E25°18'45.743"N
372	Minglun	Cuishan	0400	0040	108°22'17.038"E25°18'40.109"N	108°22'1.189"E25°18'29.638"N	108°22'0.693"E25°18'30.655"N	108°22'10.629"E25°18'40.722"N

373	Minglun	Yinghao	0600	0046	108°27'24.157"E25°7'10.978"N	108°27'9.867"E25°7'4.074"N	108°27'8.231"E25°7'4.508"N	108°27'16.359"E25°7'11.647"N
374	Changmei	Neitong	2100	0036	108°26'32.101"E25°0'10.814"N	108°26'24.575"E24°59'48.589"N	108°26'20.380"E24°59'51.607"N	108°26'30.541"E25°0'15.820"N
375	Xia'nan	Yifeng	0400	0008	108°5'0.631"E24°59'11.675"N	108°4'53.451"E24°58'57.894"N	108°4'44.920"E24°58'59.910"N	108°5'0.489"E24°59'11.933"N
376	Xia'nan	Bochuan	0300	0017	107°59'33.707"E24°59'30.115"N	107°59'27.219"E24°59'25.465"N	107°59'23.754"E24°59'32.477"N	107°59'29.079"E24°59'36.546"N
377	Huashan Forest Farm	Yalong Branch Farm	0500	0032	108°34'19.616"E25°1'27.753"N	108°33'56.496"E25°1'24.313"N	108°33'53.453"E25°1'28.567"N	108°34'6.250"E25°1'32.097"N
378	Huashan Forest Farm	Yalong Branch Farm	0500	0037	108°34'37.801"E25°1'27.762"N	108°34'28.760"E25°1'25.332"N	108°34'21.838"E25°1'30.212"N	108°34'24.430"E25°1'30.725"N
379	Da'an	Da'an	1300	0022	108°18'58.190"E24°53'20.933"N	108°18'43.864"E24°53'10.962"N	108°18'42.923"E24°53'13.747"N	108°18'56.794"E24°53'27.123"N
380	Da'an	Huanjie	0200	0028	108°18'52.283"E25°1'11.467"N	108°18'47.248"E25°1'10.250"N	108°18'42.549"E25°1'21.645"N	108°18'47.083"E25°1'22.968"N
381	Da'an	Jinqiao	1600	0118	108°20'32.794"E25°0'45.974"N	108°20'31.646"E25°0'44.278"N	108°20'20.140"E25°0'51.001"N	108°20'26.006"E25°0'56.128"N
382	Tiancai	Tongjin	0200	0017	108°18'55.826"E24°48'12.503"N	108°18'45.752"E24°48'2.910"N	108°18'43.159"E24°48'5.611"N	108°18'55.817"E24°48'12.635"N
383	Chuanshan	Hedun	1800	0030	108°7'55.197"E25°9'22.355"N	108°7'45.584"E25°9'17.785"N	108°7'39.966"E25°9'21.642"N	108°7'46.877"E25°9'27.666"N
384	Minglun	Minglun	2200	0026	108°21'11.348"E25°10'44.792"N	108°21'9.549"E25°10'43.749"N	108°21'1.218"E25°10'50.073"N	108°21'2.098"E25°10'51.612"N
385	Shuiyuan	Sanmei	0500	0035	108°8'49.277"E24°51'15.191"N	108°8'46.404"E24°51'13.989"N	108°8'42.571"E24°51'16.779"N	108°8'47.534"E24°51'21.538"N
386	Shuiyuan	Shuiyuan	0600	0102	108°9'14.436"E24°53'50.578"N	108°9'10.989"E24°53'45.874"N	108°9'7.673"E24°53'49.418"N	108°9'9.785"E24°53'53.560"N
387	Changmei	Neitong	2700	0060	108°27'14.638"E24°59'9.497"N	108°27'11.831"E24°59'3.324"N	108°27'6.984"E24°59'16.344"N	108°27'9.466"E24°59'17.296"N
388	Longyan	Chenghuang	0500	0055	108°25'10.255"E25°23'42.955"N	108°25'3.301"E25°23'36.294"N	108°24'55.383"E25°23'45.965"N	108°25'2.842"E25°23'48.800"N
389	Longyan	Chenghuang	0500	0105	108°25'10.341"E25°23'29.145"N	108°25'1.053"E25°23'19.406"N	108°24'56.482"E25°23'22.982"N	108°25'1.381"E25°23'35.340"N
390	Longyan	Anshan	0300	0011	108°31'51.460"E25°16'34.854"N	108°31'43.648"E25°16'19.375"N	108°31'38.862"E25°16'32.010"N	108°31'41.876"E25°16'36.904"N
391	Longyan	Huangzhong	0300	0012	108°23'48.593"E25°26'55.853"N	108°23'46.639"E25°26'54.862"N	108°23'40.152"E25°26'59.936"N	108°23'42.337"E25°27'5.431"N
392	Longyan	Huangzhong	0300	0092	108°23'46.150"E25°26'32.896"N	108°23'40.752"E25°26'14.250"N	108°23'35.400"E25°26'29.747"N	108°23'42.516"E25°26'36.339"N
393	Longyan	Huangzhong	0400	0005	108°23'16.295"E25°26'48.998"N	108°23'8.527"E25°26'44.354"N	108°23'6.640"E25°26'49.402"N	108°23'9.001"E25°26'51.953"N
394	Longyan	Huangzhong	0500	0029	108°22'25.414"E25°26'35.299"N	108°22'23.795"E25°26'30.505"N	108°22'12.981"E25°26'34.033"N	108°22'24.864"E25°26'38.984"N
395	Longyan	Huangzhong	0600	0026	108°24'59.826"E25°26'6.371"N	108°24'40.577"E25°25'51.275"N	108°24'36.066"E25°25'58.828"N	108°24'47.601"E25°26'14.706"N
396	Longyan	Huangzhong	0700	0015	108°25'48.629"E25°25'56.426"N	108°25'44.331"E25°25'52.474"N	108°25'31.852"E25°25'59.500"N	108°25'41.576"E25°26'11.278"N
397	Longyan	Huangzhong	0900	0112	108°26'22.872"E25°26'41.843"N	108°26'4.256"E25°26'24.356"N	108°25'51.385"E25°26'30.896"N	108°26'19.002"E25°26'46.720"N
398	Longyan	Huangzhong	1100	0008	108°27'34.502"E25°26'4.562"N	108°27'23.581"E25°25'56.314"N	108°27'18.148"E25°25'58.552"N	108°27'26.553"E25°26'11.710"N
399	Longyan	Huangzhong	1900	0158	108°26'55.322"E25°23'59.342"N	108°26'32.095"E25°23'58.014"N	108°26'31.466"E25°23'58.073"N	108°26'39.055"E25°24'5.340"N

400	Longyan	Huangzhong	2000	0006	108°27'45.521"E25°24'55.692"N	108°27'34.288"E25°24'51.055"N	108°27'30.939"E25°24'55.121"N	108°27'40.187"E25°25'2.058"N
401	Xia'nan	Zhongnan	0300	0010	108°0'20.257"E24°57'27.700"N	108°0'9.831"E24°57'18.686"N	108°0'2.750"E24°57'29.696"N	108°0'17.128"E24°57'32.618"N
402	Xia'nan	Zhongnan	0900	0046	108°0'40.621"E24°55'49.098"N	108°0'37.686"E24°55'39.672"N	108°0'24.781"E24°55'48.730"N	108°0'33.310"E24°55'52.277"N
403	Xia'nan	Zhongnan	1300	0033	107°59'20.021"E24°54'46.380"N	107°59'14.883"E24°54'42.434"N	107°59'10.714"E24°54'43.474"N	107°59'16.488"E24°54'50.176"N
404	Xia'nan	Yifeng	0600	0032	108°6'26.959"E24°59'25.236"N	108°6'17.044"E24°59'15.062"N	108°6'11.806"E24°59'20.277"N	108°6'23.810"E24°59'28.162"N
405	Dongxing	Dongxing	0100	0048	108°31'4.036"E25°10'37.351"N	108°31'3.786"E25°10'37.077"N	108°30'52.383"E25°10'40.133"N	108°30'57.807"E25°10'46.231"N
406	Dongxing	Dongxing	0800	0086	108°34'10.381"E25°8'34.179"N	108°33'40.467"E25°8'22.750"N	108°33'38.355"E25°8'22.981"N	108°34'7.524"E25°8'34.688"N
407	Dongxing	Weicai	0600	0042	108°33'18.464"E25°12'33.440"N	108°33'17.718"E25°12'28.657"N	108°33'7.761"E25°12'37.446"N	108°33'13.417"E25°12'49.259"N
408	Dongxing	Jiudeng	0100	0013	108°35'35.276"E25°9'57.575"N	108°35'29.565"E25°9'44.787"N	108°35'25.073"E25°9'50.170"N	108°35'32.091"E25°9'59.449"N
409	Dongxing	Jiudeng	0900	0045	108°37'8.840"E25°7'54.530"N	108°37'0.809"E25°7'51.487"N	108°36'52.657"E25°8'4.991"N	108°37'2.953"E25°8'7.843"N
410	Dongxing	Jiudeng	1400	0011	108°34'12.515"E25°8'17.162"N	108°34'3.328"E25°8'15.422"N	108°33'58.758"E25°8'18.115"N	108°34'5.701"E25°8'25.177"N
411	Dongxing	Jiudeng	1600	0008	108°36'1.702"E25°7'44.096"N	108°35'59.505"E25°7'42.093"N	108°35'36.374"E25°7'57.580"N	108°35'41.417"E25°8'3.992"N
412	Dongxing	Jiaying	0700	0003	108°32'42.164"E25°5'44.454"N	108°32'27.689"E25°5'34.990"N	108°32'11.236"E25°5'42.892"N	108°32'39.307"E25°5'48.897"N
413	Dongxing	Ping'an	1900	0004	108°40'15.576"E25°9'39.424"N	108°40'12.873"E25°9'31.740"N	108°40'2.995"E25°9'40.716"N	108°40'13.262"E25°9'43.783"N
414	Dongxing	Ping'an	2100	0020	108°40'49.183"E25°9'36.600"N	108°40'35.690"E25°9'29.089"N	108°40'24.974"E25°9'45.852"N	108°40'33.262"E25°9'47.598"N
415	Dongxing	Ping'an	2500	0027	108°39'40.338"E25°8'29.808"N	108°39'34.186"E25°8'23.917"N	108°39'17.738"E25°8'30.441"N	108°39'24.999"E25°8'36.585"N
416	Dongxing	Ping'an	3100	0040	108°40'2.215"E25°6'46.007"N	108°40'1.700"E25°6'45.397"N	108°39'30.844"E25°6'53.152"N	108°39'39.712"E25°7'1.762"N
417	Dongxing	Ping'an	4200	0043	108°39'30.144"E25°5'8.039"N	108°39'27.849"E25°5'5.033"N	108°39'23.071"E25°5'12.892"N	108°39'23.369"E25°5'15.126"N
418	Dongxing	Ping'an	4800	0005	108°38'33.204"E25°5'9.203"N	108°38'13.359"E25°5'4.873"N	108°38'8.529"E25°5'9.967"N	108°38'15.955"E25°5'14.480"N
419	Dongxing	Ping'an	5100	0016	108°40'32.987"E25°3'56.220"N	108°40'22.347"E25°3'44.188"N	108°40'8.586"E25°3'48.516"N	108°40'21.996"E25°4'5.994"N
420	Dongxing	Ping'an	5200	0009	108°38'17.017"E25°3'52.388"N	108°37'47.461"E25°3'41.827"N	108°37'45.849"E25°3'44.107"N	108°38'8.607"E25°3'53.830"N
421	Dongxing	Biaoshan	1700	0080	108°36'1.856"E25°12'2.631"N	108°35'57.031"E25°12'0.280"N	108°35'51.937"E25°12'4.007"N	108°35'57.209"E25°12'9.461"N
422	Dongxing	Biaoshan	2100	0050	108°35'15.313"E25°11'56.350"N	108°35'9.849"E25°11'54.518"N	108°34'56.451"E25°11'59.370"N	108°34'59.912"E25°12'6.747"N
423	Dongxing	Biaoshan	2500	0028	108°36'34.212"E25°12'5.164"N	108°36'21.008"E25°11'53.068"N	108°36'7.112"E25°11'56.115"N	108°36'26.337"E25°12'9.237"N
424	Dongxing	Biaoshan	2500	0051	108°36'36.082"E25°11'48.673"N	108°36'26.828"E25°11'39.606"N	108°36'21.375"E25°11'42.246"N	108°36'30.693"E25°11'51.135"N
425	Dongxing	Biaoshan	2600	0005	108°35'48.191"E25°11'42.756"N	108°35'16.296"E25°11'35.447"N	108°35'15.261"E25°11'41.324"N	108°35'24.909"E25°11'56.054"N
426	Dongxing	Duya	0100	0026	108°27'27.414"E25°4'9.323"N	108°27'23.728"E25°4'5.318"N	108°27'19.701"E25°4'8.941"N	108°27'25.077"E25°4'18.293"N

427	Dongxing	Duya	1400	0081	108°27'44.923"E25°2'11.920"N	108°27'31.803"E25°1'55.841"N	108°27'14.588"E25°2'9.946"N	108°27'39.049"E25°2'16.738"N
428	Dongxing	Duya	1600	0036	108°30'4.748"E25°2'59.550"N	108°29'54.225"E25°2'46.342"N	108°29'51.740"E25°2'51.624"N	108°29'58.179"E25°3'3.202"N
429	Dongxing	Chashan	0700	0038	108°35'32.496"E25°16'45.377"N	108°35'27.025"E25°16'37.950"N	108°35'17.396"E25°16'40.720"N	108°35'31.480"E25°16'46.151"N
430	Dongxing	Chashan	0700	0047	108°35'30.085"E25°16'33.647"N	108°35'23.172"E25°16'22.583"N	108°35'19.418"E25°16'23.480"N	108°35'28.621"E25°16'35.614"N
431	Dongxing	Chashan	1200	0078	108°36'47.757"E25°15'21.643"N	108°36'32.711"E25°15'15.156"N	108°36'30.580"E25°15'16.290"N	108°36'38.371"E25°15'22.737"N
432	Dongxing	Chashan	1500	0085	108°35'51.684"E25°14'49.034"N	108°35'43.985"E25°14'38.606"N	108°35'31.817"E25°14'49.524"N	108°35'37.775"E25°14'56.430"N
433	Dongxing	Chashan	1600	0044	108°35'28.933"E25°15'13.899"N	108°35'20.810"E25°15'7.795"N	108°35'12.396"E25°15'16.212"N	108°35'16.975"E25°15'21.983"N
434	Dongxing	Chashan	1900	0025	108°34'0.394"E25°15'52.860"N	108°33'53.012"E25°15'40.381"N	108°33'45.417"E25°16'6.627"N	108°33'54.048"E25°16'8.623"N
435	Dongxing	Chashan	2700	0028	108°32'29.398"E25°14'20.209"N	108°32'27.534"E25°14'17.109"N	108°32'21.405"E25°14'32.397"N	108°32'23.113"E25°14'37.242"N
436	Dongxing	Daxing	0100	0006	108°37'15.766"E25°7'17.125"N	108°37'10.288"E25°7'16.142"N	108°36'47.275"E25°7'29.806"N	108°37'2.159"E25°7'38.137"N
437	Dongxing	Daxing	0100	0041	108°36'40.173"E25°7'7.378"N	108°36'32.808"E25°6'50.458"N	108°36'22.221"E25°7'12.087"N	108°36'29.269"E25°7'14.162"N
438	Dongxing	Daxing	0500	0014	108°37'33.625"E25°6'50.734"N	108°37'10.488"E25°6'30.375"N	108°37'9.688"E25°6'30.463"N	108°37'31.084"E25°6'51.660"N
439	Dongxing	Daxing	0600	0070	108°37'21.453"E25°6'8.181"N	108°37'13.173"E25°5'58.289"N	108°37'3.631"E25°6'1.401"N	108°37'15.893"E25°6'9.684"N
440	Dongxing	Daxing	1100	0005	108°34'40.622"E25°7'26.975"N	108°34'10.032"E25°7'4.747"N	108°34'8.729"E25°7'4.881"N	108°34'39.735"E25°7'27.785"N
441	Dongxing	Daxing	1200	0001	108°35'3.631"E25°6'39.532"N	108°34'38.280"E25°6'25.167"N	108°34'15.392"E25°6'40.516"N	108°34'38.047"E25°6'47.179"N
442	Dongxing	Daxing	1400	0019	108°36'6.770"E25°5'54.765"N	108°35'58.897"E25°5'46.147"N	108°35'50.361"E25°5'58.310"N	108°35'52.215"E25°6'0.320"N
443	Dongxing	Daxing	1700	0016	108°38'1.623"E25°4'57.549"N	108°37'26.966"E25°4'44.223"N	108°37'25.598"E25°4'45.439"N	108°37'58.908"E25°4'59.726"N
444	Dongxing	Daxing	1800	0039	108°37'8.200"E25°4'5.797"N	108°37'6.638"E25°3'58.636"N	108°36'47.336"E25°4'9.698"N	108°36'56.092"E25°4'15.311"N
445	Dongxing	Longcheng	0200	0022	108°36'30.294"E25°4'54.933"N	108°36'22.210"E25°4'47.239"N	108°36'13.152"E25°4'54.707"N	108°36'15.460"E25°5'0.991"N
446	Dongxing	Longcheng	0200	0029	108°36'39.941"E25°4'42.897"N	108°36'34.895"E25°4'32.049"N	108°36'21.275"E25°4'39.119"N	108°36'38.387"E25°4'54.585"N
447	Dongxing	Longcheng	0600	0044	108°35'30.335"E25°3'59.278"N	108°35'17.012"E25°3'47.882"N	108°35'15.535"E25°3'52.024"N	108°35'18.128"E25°4'12.419"N
448	Dongxing	Longcheng	0700	0024	108°34'38.106"E25°3'59.210"N	108°34'27.767"E25°3'49.577"N	108°34'24.034"E25°4'9.003"N	108°34'24.979"E25°4'11.204"N
449	Dongxing	Longcheng	0700	0084	108°34'38.499"E25°3'32.500"N	108°34'35.993"E25°3'30.398"N	108°34'15.183"E25°3'36.059"N	108°34'24.000"E25°3'43.461"N
450	Dongxing	Longcheng	0900	0003	108°35'3.421"E25°5'16.520"N	108°34'40.697"E25°5'6.702"N	108°34'29.660"E25°5'12.023"N	108°34'59.230"E25°5'21.475"N
451	Dongxing	Longcheng	1000	0066	108°33'42.118"E25°4'25.452"N	108°33'40.986"E25°4'21.694"N	108°33'27.712"E25°4'33.621"N	108°33'37.031"E25°4'39.808"N
452	Dongxing	Longcheng	1100	0001	108°34'0.946"E25°5'39.182"N	108°33'50.758"E25°5'32.199"N	108°33'43.262"E25°5'39.365"N	108°33'54.645"E25°5'49.473"N
453	Dongxing	Longcheng	1400	0050	108°32'42.735"E25°3'16.790"N	108°32'40.308"E25°3'7.033"N	108°32'28.333"E25°3'20.121"N	108°32'34.560"E25°3'26.503"N

454	Dongxing	Longcheng	1600	0002	108°34'8.047"E25°3'30.875"N	108°34'4.561"E25°3'25.921"N	108°33'50.966"E25°3'35.835"N	108°33'52.858"E25°3'44.367"N
455	Dongxing	Longcheng	1600	0015	108°33'55.799"E25°3'33.464"N	108°33'41.507"E25°3'25.811"N	108°33'40.469"E25°3'26.864"N	108°33'50.969"E25°3'35.837"N
456	Dongxing	Longcheng	1800	0044	108°34'59.614"E25°2'42.402"N	108°34'53.363"E25°2'29.708"N	108°34'41.973"E25°2'39.986"N	108°34'53.985"E25°2'45.425"N
457	Huashan Forest Farm	Beishan Branch Farm	0500	0008	108°14'56.075"E25°13'58.047"N	108°14'34.942"E25°13'52.172"N	108°14'32.827"E25°13'53.978"N	108°14'41.159"E25°14'2.406"N
458	Huashan Forest Farm	Beishan Branch Farm	0600	0023	108°13'59.086"E25°13'13.048"N	108°13'57.327"E25°13'8.459"N	108°13'44.109"E25°13'28.644"N	108°13'52.004"E25°13'43.955"N
459	Da'an	Tangfang	0600	0007	108°16'30.034"E24°56'52.707"N	108°16'23.553"E24°56'51.237"N	108°16'19.088"E24°56'56.502"N	108°16'23.679"E24°56'59.883"N
460	Da'an	Tangfang	0800	0007	108°16'33.637"E24°56'20.669"N	108°16'27.612"E24°56'11.430"N	108°16'24.375"E24°56'22.782"N	108°16'26.706"E24°56'24.624"N
461	Da'an	Da'an	0700	0022	108°18'0.788"E24°54'16.602"N	108°17'58.840"E24°54'16.229"N	108°17'54.097"E24°54'30.773"N	108°17'56.479"E24°54'31.695"N
462	Da'an	Da'an	0800	0010	108°17'0.723"E24°54'37.145"N	108°16'57.455"E24°54'35.700"N	108°16'45.811"E24°54'41.359"N	108°16'55.320"E24°54'50.332"N
463	Da'an	Jinqiao	1000	0098	108°21'26.001"E25°0'52.168"N	108°21'7.401"E25°0'48.310"N	108°21'7.266"E25°0'48.806"N	108°21'14.325"E25°0'55.748"N
464	Da'an	Jinqiao	1200	0089	108°20'25.395"E25°1'42.485"N	108°20'18.348"E25°1'39.175"N	108°20'4.419"E25°1'46.180"N	108°20'9.512"E25°1'52.368"N
465	Tiancai	Tongjin	0500	0175	108°20'16.854"E24°46'39.998"N	108°20'6.899"E24°46'26.766"N	108°20'6.038"E24°46'27.511"N	108°20'13.251"E24°46'43.193"N
466	Chuanshan	Xiafeng	0100	0018	108°5'0.104"E25°5'56.048"N	108°4'51.695"E25°5'53.070"N	108°4'44.396"E25°6'3.248"N	108°4'47.839"E25°6'5.740"N
467	Chuanshan	Xiafeng	0100	0040	108°3'32.255"E25°5'49.652"N	108°3'25.464"E25°5'41.107"N	108°3'12.948"E25°5'46.167"N	108°3'20.244"E25°5'54.261"N
468	Chuanshan	Xiafeng	0200	0002	108°3'50.515"E25°5'22.390"N	108°3'45.624"E25°5'21.196"N	108°3'41.792"E25°5'29.295"N	108°3'42.432"E25°5'30.871"N
469	Chuanshan	Xiafeng	3100	0008	108°3'47.604"E25°3'53.358"N	108°3'26.303"E25°3'38.518"N	108°3'26.303"E25°3'38.518"N	108°3'42.117"E25°3'59.069"N
470	Chuanshan	Wuwei	0100	0041	108°7'8.947"E25°7'47.358"N	108°6'58.884"E25°7'37.781"N	108°6'55.516"E25°7'41.063"N	108°7'6.386"E25°7'49.157"N
471	Chuanshan	Hedun	1000	0029	108°6'35.975"E25°8'48.035"N	108°6'27.857"E25°8'45.027"N	108°6'25.541"E25°8'47.902"N	108°6'32.518"E25°8'52.710"N
472	Chuanshan	Hedun	1600	0033	108°8'58.818"E25°7'40.477"N	108°8'48.853"E25°7'31.530"N	108°8'43.808"E25°7'46.231"N	108°8'46.266"E25°7'48.595"N
473	Chuanshan	Hedun	1900	0026	108°7'58.195"E25°8'41.768"N	108°7'50.884"E25°8'38.249"N	108°7'43.928"E25°8'39.137"N	108°7'49.729"E25°8'51.312"N
474	Chuanshan	Tongban	0100	0014	108°3'23.079"E25°1'50.474"N	108°3'18.134"E25°1'41.770"N	108°3'12.187"E25°1'42.816"N	108°3'22.781"E25°1'50.744"N
475	Chuanshan	Tongban	0300	0052	108°4'30.426"E25°0'52.615"N	108°4'26.355"E25°0'37.810"N	108°4'19.656"E25°0'47.870"N	108°4'28.729"E25°0'54.641"N
476	Chuanshan	Tangwan	0300	0049	108°2'46.595"E25°0'41.235"N	108°2'46.106"E25°0'40.379"N	108°2'35.561"E25°0'45.126"N	108°2'45.136"E25°0'48.285"N
477	Chuanshan	Tangwan	0300	0059	108°2'46.472"E25°0'29.368"N	108°2'30.943"E25°0'25.497"N	108°2'23.291"E25°0'36.981"N	108°2'25.028"E25°0'38.044"N
478	Chuanshan	Tangwan	0400	0019	108°2'16.110"E25°0'5.880"N	108°2'14.810"E25°0'4.378"N	108°2'4.604"E25°0'8.974"N	108°2'10.782"E25°0'13.812"N
479	Chuanshan	Tangwan	0600	0039	108°1'28.036"E24°59'30.743"N	108°1'28.036"E24°59'30.743"N	108°1'6.707"E24°59'35.528"N	108°1'20.484"E24°59'44.404"N
480	Chuanshan	Mulun	0900	0051	107°59'39.754"E25°2'59.606"N	107°59'34.103"E25°2'58.032"N	107°59'28.580"E25°3'5.334"N	107°59'30.246"E25°3'7.483"N

481	Chuanshan	Youdong	0100	0063	108°5'20.000"E25°4'37.943"N	108°4'55.851"E25°4'28.299"N	108°4'54.857"E25°4'30.430"N	108°5'13.359"E25°4'44.488"N
482	Chuanshan	Youdong	0400	0012	108°5'19.415"E25°4'21.469"N	108°5'13.463"E25°4'6.832"N	108°5'0.268"E25°4'25.581"N	108°5'3.724"E25°4'27.280"N
483	Chuanshan	Baidan	0400	0017	108°2'55.053"E25°6'53.107"N	108°2'40.973"E25°6'43.097"N	108°2'40.256"E25°6'46.742"N	108°2'44.509"E25°6'54.128"N
484	Chuanshan	Shacun	2600	0048	108°4'53.036"E25°8'9.539"N	108°4'42.463"E25°8'5.245"N	108°4'39.512"E25°8'9.460"N	108°4'42.876"E25°8'18.292"N
485	Chuanshan	Shacun	2800	0137	108°5'23.905"E25°5'37.188"N	108°5'13.098"E25°5'27.424"N	108°5'3.298"E25°5'37.316"N	108°5'7.730"E25°5'40.464"N
486	Chuanshan	Chajiang	0100	0014	108°3'8.455"E25°3'23.330"N	108°3'4.756"E25°3'11.342"N	108°2'58.907"E25°3'13.962"N	108°3'8.089"E25°3'23.523"N
487	Chuanshan	Chajiang	0400	0053	108°3'2.647"E25°1'50.235"N	108°2'58.672"E25°1'45.790"N	108°2'55.965"E25°1'49.268"N	108°3'0.250"E25°1'52.299"N
488	Si'en	Sanle	0500	0080	108°14'44.099"E24°48'50.387"N	108°14'37.025"E24°48'41.857"N	108°14'35.822"E24°48'42.954"N	108°14'38.367"E24°48'52.669"N
489	Si'en	Chengguan	0800	0009	108°14'32.808"E24°48'28.116"N	108°14'32.783"E24°48'25.131"N	108°14'26.589"E24°48'26.695"N	108°14'30.703"E24°48'31.768"N
490	Si'en	Anliang	0100	0072	108°16'18.196"E24°52'52.371"N	108°16'14.659"E24°52'41.727"N	108°16'7.468"E24°52'44.461"N	108°16'13.531"E24°52'55.583"N
491	Si'en	Anliang	0200	0019	108°18'12.608"E24°52'38.209"N	108°18'6.124"E24°52'31.919"N	108°17'54.606"E24°52'34.672"N	108°18'4.900"E24°52'45.135"N
492	Si'en	Anliang	0600	0064	108°17'36.150"E24°51'51.245"N	108°17'24.842"E24°51'44.643"N	108°17'21.208"E24°51'49.667"N	108°17'27.792"E24°51'56.920"N
493	Si'en	Wenhua	0300	0057	108°18'29.053"E24°48'21.441"N	108°18'17.053"E24°48'19.455"N	108°18'13.512"E24°48'29.363"N	108°18'15.758"E24°48'29.883"N
494	Si'en	Xinan	0200	0093	108°10'47.205"E24°50'42.990"N	108°10'41.750"E24°50'41.943"N	108°10'36.444"E24°50'46.571"N	108°10'41.124"E24°50'48.855"N
495	Si'en	Chenshuang	0600	0001	108°13'20.188"E24°54'22.055"N	108°13'3.141"E24°54'4.104"N	108°12'58.953"E24°54'10.754"N	108°13'16.050"E24°54'26.081"N
496	Si'en	Chenshuang	0600	0023	108°13'2.699"E24°54'0.213"N	108°12'55.789"E24°53'53.659"N	108°12'39.741"E24°54'5.155"N	108°12'45.002"E24°54'11.744"N
497	Si'en	Chenshuang	1100	0135	108°14'59.674"E24°52'34.635"N	108°14'52.739"E24°52'26.801"N	108°14'48.531"E24°52'34.520"N	108°14'54.104"E24°52'37.623"N
498	Minglun	Bamian	1200	0006	108°24'13.053"E25°5'22.410"N	108°23'54.035"E25°5'18.243"N	108°23'52.976"E25°5'19.618"N	108°24'9.227"E25°5'25.945"N
499	Minglun	Bamian	1600	0010	108°24'31.873"E25°4'56.093"N	108°24'27.866"E25°4'50.199"N	108°24'20.678"E25°4'59.985"N	108°24'28.528"E25°5'0.983"N
500	Minglun	Caibo	0200	0049	108°23'43.167"E25°16'57.166"N	108°23'42.849"E25°16'57.059"N	108°23'30.286"E25°16'58.075"N	108°23'33.043"E25°17'6.956"N
501	Minglun	Minglun	2100	0007	108°20'22.829"E25°10'46.685"N	108°20'0.590"E25°10'38.951"N	108°19'57.903"E25°10'46.808"N	108°20'11.026"E25°10'52.539"N
502	Minglun	Minglun	2100	0021	108°20'8.790"E25°10'15.200"N	108°19'50.836"E25°9'59.726"N	108°19'44.093"E25°10'12.978"N	108°20'5.568"E25°10'16.805"N
503	Minglun	Liuping	0500	0014	108°23'18.513"E25°4'9.631"N	108°23'4.644"E25°3'53.393"N	108°22'56.908"E25°3'58.062"N	108°23'12.434"E25°4'15.223"N
504	Minglun	Yinghao	0700	0006	108°25'29.526"E25°7'47.929"N	108°25'19.357"E25°7'38.564"N	108°25'18.005"E25°7'41.213"N	108°25'25.208"E25°7'54.002"N
505	Minglun	Haodong	0100	0003	108°20'57.181"E25°9'35.576"N	108°20'55.276"E25°9'30.684"N	108°20'42.831"E25°9'42.341"N	108°20'48.420"E25°9'45.021"N
506	Minglun	Haodong	0100	0012	108°20'50.791"E25°9'23.965"N	108°20'37.802"E25°9'8.000"N	108°20'33.441"E25°9'26.942"N	108°20'41.265"E25°9'34.288"N
507	Minglun	Haodong	0300	0041	108°22'15.906"E25°8'49.846"N	108°22'12.031"E25°8'43.743"N	108°21'58.742"E25°8'45.593"N	108°22'7.031"E25°8'53.490"N

508	Minglun	Haodong	0700	0072	108°21'22.473"E25°8'23.714"N	108°21'17.358"E25°8'16.045"N	108°21'13.458"E25°8'18.888"N	108°21'20.686"E25°8'26.403"N
509	Shuiyuan	Zhongjian	0200	0068	108°11'35.303"E24°55'12.195"N	108°11'26.049"E24°55'7.741"N	108°11'17.478"E24°55'13.015"N	108°11'24.257"E24°55'16.778"N
510	Shuiyuan	Zhongjian	0800	0004	108°10'24.855"E24°53'18.479"N	108°10'13.187"E24°53'8.378"N	108°10'10.574"E24°53'10.068"N	108°10'16.582"E24°53'20.004"N
511	Shuiyuan	Zhongjian	1000	0065	108°10'0.330"E24°52'19.359"N	108°9'56.954"E24°52'16.855"N	108°9'45.916"E24°52'24.210"N	108°9'53.862"E24°52'30.685"N
512	Shuiyuan	Heping	0400	0008	108°8'41.112"E24°56'47.143"N	108°8'34.211"E24°56'43.592"N	108°8'19.045"E24°56'51.567"N	108°8'37.920"E24°56'54.937"N
513	Shuiyuan	Heping	0600	0023	108°9'16.525"E24°55'34.874"N	108°9'6.281"E24°55'22.440"N	108°9'2.354"E24°55'23.206"N	108°9'9.203"E24°55'39.048"N
514	Shuiyuan	Heping	0700	0009	108°8'22.005"E24°56'2.120"N	108°8'14.499"E24°55'56.291"N	108°8'9.906"E24°55'59.919"N	108°8'15.150"E24°56'3.857"N
515	Shuiyuan	Heping	0700	0070	108°8'24.954"E24°55'31.578"N	108°8'17.777"E24°55'26.658"N	108°8'8.800"E24°55'31.529"N	108°8'15.847"E24°55'34.089"N
516	Shuiyuan	Heping	0700	0073	108°8'38.318"E24°55'25.310"N	108°8'31.713"E24°55'21.412"N	108°8'21.289"E24°55'25.584"N	108°8'29.028"E24°55'31.303"N
517	Shuiyuan	Shuiyuan	0100	0078	108°7'30.886"E24°55'17.634"N	108°7'26.413"E24°55'9.234"N	108°7'16.348"E24°55'23.211"N	108°7'18.136"E24°55'23.541"N
518	Shuiyuan	Shuiyuan	0300	0080	108°7'5.650"E24°53'59.418"N	108°6'54.417"E24°53'57.969"N	108°6'53.565"E24°54'1.033"N	108°6'59.364"E24°54'7.084"N
519	Shuiyuan	Shuiyuan	0600	0006	108°9'42.862"E24°54'34.766"N	108°9'16.180"E24°54'24.899"N	108°9'8.254"E24°54'28.356"N	108°9'40.249"E24°54'37.265"N
520	Luoyang	Guchang	0200	0060	108°15'45.221"E25°2'0.083"N	108°15'33.471"E25°1'55.335"N	108°15'29.189"E25°2'5.938"N	108°15'40.931"E25°2'12.118"N
521	Luoyang	Guchang	1000	0003	108°15'7.592"E24°59'41.316"N	108°14'58.259"E24°59'34.916"N	108°14'51.867"E24°59'40.926"N	108°15'2.601"E24°59'45.978"N
522	Luoyang	Hezuo	0200	0060	108°16'4.007"E24°58'47.472"N	108°16'2.643"E24°58'45.075"N	108°15'54.885"E24°58'49.601"N	108°15'57.018"E24°58'54.021"N
523	Luoyang	Tuanjie	0200	0066	108°9'46.801"E24°56'46.921"N	108°9'43.504"E24°56'44.717"N	108°9'31.219"E24°56'52.949"N	108°9'33.683"E24°56'55.967"N
524	Luoyang	Tuanjie	0400	0025	108°11'10.491"E24°56'20.620"N	108°11'6.049"E24°56'16.457"N	108°10'59.267"E24°56'21.959"N	108°11'0.713"E24°56'23.519"N
525	Luoyang	Dimeng	1100	0033	108°12'53.987"E25°4'29.644"N	108°12'41.061"E25°4'25.418"N	108°12'40.335"E25°4'25.737"N	108°12'47.003"E25°4'34.982"N
526	Luoyang	Dimeng	1200	0016	108°13'41.877"E25°4'46.128"N	108°13'32.801"E25°4'43.356"N	108°13'30.237"E25°4'46.618"N	108°13'34.446"E25°4'54.696"N
527	Luoyang	Dimeng	1200	0097	108°13'9.620"E25°3'57.874"N	108°13'5.259"E25°3'55.996"N	108°12'54.371"E25°3'56.541"N	108°13'3.977"E25°4'3.904"N
528	Luoyang	Dimeng	1300	0004	108°14'40.149"E25°5'35.481"N	108°14'35.339"E25°5'18.646"N	108°14'29.549"E25°5'32.138"N	108°14'36.796"E25°5'40.232"N
529	Luoyang	Dimeng	1300	0046	108°14'21.761"E25°5'24.795"N	108°14'9.866"E25°5'15.145"N	108°14'3.661"E25°5'22.198"N	108°14'17.959"E25°5'26.016"N
530	Luoyang	Miaoshi	1000	0009	108°8'48.220"E25°0'2.110"N	108°8'47.114"E24°59'52.960"N	108°8'42.026"E25°0'2.722"N	108°8'44.630"E25°0'10.007"N
531	Luoyang	Miaoshi	1600	0008	108°8'38.069"E24°58'31.581"N	108°8'23.804"E24°58'27.588"N	108°8'18.798"E24°58'30.737"N	108°8'33.256"E24°58'35.963"N
532	Luoyang	Miaoshi	1600	0035	108°8'55.507"E24°58'13.428"N	108°8'50.057"E24°58'8.268"N	108°8'43.912"E24°58'13.664"N	108°8'47.575"E24°58'20.561"N
533	Luoyang	Pingyuan Branch Farm	0200	0001	108°13'20.022"E25°4'4.992"N	108°12'46.639"E25°3'38.071"N	108°12'40.244"E25°3'39.531"N	108°13'20.022"E25°4'4.992"N
534	Luoyang	Wenya	0100	0092	108°14'31.145"E25°16'26.263"N	108°14'28.183"E25°16'16.072"N	108°14'25.168"E25°16'24.431"N	108°14'29.870"E25°16'27.271"N

535	Luoyang	Wenya	0900	0002	108°16'30.738"E25°13'26.887"N	108°16'27.172"E25°13'23.434"N	108°16'22.514"E25°13'28.209"N	108°16'29.036"E25°13'34.065"N
536	Luoyang	Yong'an	0600	0025	108°12'29.548"E25°8'55.138"N	108°12'19.704"E25°8'49.024"N	108°12'15.550"E25°8'51.820"N	108°12'24.614"E25°8'59.102"N
537	Luoyang	Yongquan	1300	0065	108°19'19.342"E25°6'46.287"N	108°19'19.045"E25°6'46.252"N	108°19'3.852"E25°6'57.567"N	108°19'5.885"E25°6'58.545"N
538	Luoyang	Yongquan	1500	0017	108°16'16.355"E25°7'41.565"N	108°16'5.040"E25°7'27.894"N	108°15'59.434"E25°7'30.825"N	108°16'11.333"E25°7'43.952"N
539	Luoyang	Yongquan	1800	0064	108°14'54.173"E25°6'33.942"N	108°14'42.582"E25°6'22.982"N	108°14'32.378"E25°6'31.947"N	108°14'44.076"E25°6'34.705"N
540	Luoyang	Yongquan	2100	0071	108°18'4.332"E25°8'35.056"N	108°18'1.445"E25°8'33.449"N	108°17'53.673"E25°8'45.999"N	108°17'56.001"E25°8'47.020"N
541	Luoyang	Yongquan	2500	0011	108°18'42.264"E25°8'15.158"N	108°18'28.832"E25°7'56.780"N	108°18'21.176"E25°8'13.670"N	108°18'32.083"E25°8'23.641"N
542	Luoyang	Yongquan	2900	0111	108°17'31.248"E25°4'57.917"N	108°17'22.128"E25°4'44.642"N	108°17'11.910"E25°4'52.665"N	108°17'22.662"E25°5'0.831"N
543	Luoyang	Jiangkou	0600	0003	108°13'48.578"E25°1'24.805"N	108°13'26.478"E25°0'42.328"N	108°13'26.478"E25°0'42.328"N	108°13'48.473"E25°1'25.197"N
544	Luoyang	Jiangkou	0700	0060	108°12'56.649"E25°1'13.482"N	108°12'49.853"E25°1'6.825"N	108°12'44.922"E25°1'10.585"N	108°12'56.299"E25°1'16.194"N
545	Luoyang	Jiangkou	0900	0030	108°12'42.115"E25°2'0.508"N	108°12'34.956"E25°1'51.740"N	108°12'28.843"E25°1'58.244"N	108°12'42.115"E25°2'0.508"N
546	Luoyang	Yuhe	0500	0028	108°16'21.925"E25°3'40.535"N	108°16'15.031"E25°3'34.528"N	108°16'10.701"E25°3'39.493"N	108°16'12.727"E25°3'46.798"N
547	Luoyang	Yuhe	0500	0042	108°16'15.030"E25°3'31.343"N	108°16'11.189"E25°3'25.726"N	108°16'2.022"E25°3'33.990"N	108°16'5.485"E25°3'36.635"N
548	Luoyang	Yuhe	0600	0097	108°15'27.348"E25°3'6.490"N	108°15'19.057"E25°3'0.929"N	108°15'9.419"E25°3'2.841"N	108°15'25.748"E25°3'8.045"N
549	Luoyang	Yamai	1400	0015	108°13'42.828"E25°10'28.734"N	108°13'27.484"E25°10'22.311"N	108°13'25.978"E25°10'24.670"N	108°13'32.361"E25°10'32.276"N
550	Luoyang	Yamai	1400	0023	108°13'42.806"E25°10'26.146"N	108°13'31.970"E25°10'18.876"N	108°13'27.484"E25°10'22.311"N	108°13'36.516"E25°10'28.572"N
551	Changmei	Bafu	1000	0022	108°27'9.025"E24°52'54.736"N	108°26'54.353"E24°52'50.212"N	108°26'50.875"E24°53'19.144"N	108°26'51.937"E24°53'19.580"N
552	Changmei	Neidian	0100	0006	108°24'28.632"E24°55'24.562"N	108°24'23.755"E24°55'8.444"N	108°24'21.279"E24°55'18.069"N	108°24'25.198"E24°55'25.117"N
553	Changmei	Neidian	1000	0053	108°25'48.482"E24°52'41.300"N	108°25'37.671"E24°52'35.701"N	108°25'36.870"E24°52'37.510"N	108°25'43.617"E24°52'47.887"N
554	Changmei	Neitong	0200	0071	108°27'53.134"E25°1'3.793"N	108°27'44.088"E25°0'57.245"N	108°27'39.447"E25°1'9.592"N	108°27'39.909"E25°1'13.403"N
555	Changmei	Neitong	0800	0007	108°32'48.144"E25°0'51.026"N	108°32'45.638"E25°0'47.440"N	108°32'38.605"E25°0'57.961"N	108°32'43.640"E25°1'6.507"N
556	Changmei	Neitong	0900	0028	108°33'2.995"E25°0'20.198"N	108°32'59.786"E25°0'15.172"N	108°32'43.637"E25°0'16.882"N	108°32'59.201"E25°0'25.302"N
557	Changmei	Neitong	1000	0002	108°34'5.934"E25°0'36.673"N	108°33'45.802"E25°0'28.241"N	108°33'44.599"E25°0'40.260"N	108°33'48.961"E25°0'45.179"N
558	Changmei	Neitong	1700	0021	108°29'8.247"E25°1'15.578"N	108°29'7.495"E25°1'14.015"N	108°28'59.869"E25°1'27.763"N	108°29'3.282"E25°1'34.928"N
559	Changmei	Neitong	1800	0043	108°29'6.643"E25°1'3.692"N	108°28'58.187"E25°0'59.830"N	108°28'50.568"E25°1'2.991"N	108°29'5.267"E25°1'6.022"N
560	Changmei	Neitong	2500	0045	108°28'49.927"E24°59'21.815"N	108°28'40.100"E24°59'15.367"N	108°28'27.378"E24°59'25.697"N	108°28'46.152"E24°59'35.593"N
561	Changmei	Changmei	1300	0044	108°26'6.891"E24°56'54.832"N	108°26'6.514"E24°56'44.745"N	108°25'48.821"E24°56'56.880"N	108°25'51.931"E24°56'58.933"N

562	Changmei	Changmei	1400	0097	108°26'30.679"E24°56'21.921"N	108°26'26.965"E24°56'14.748"N	108°26'20.740"E24°56'17.921"N	108°26'22.414"E24°56'28.279"N
563	Xunle	Quan'an	0200	0011	108°18'46.997"E25°25'0.000"N	108°18'45.987"E25°24'58.867"N	108°18'37.761"E25°25'3.808"N	108°18'44.888"E25°25'8.268"N
564	Xunle	Quan'an	0200	0022	108°19'25.298"E25°24'45.701"N	108°19'11.426"E25°24'42.868"N	108°18'52.213"E25°24'51.465"N	108°18'59.152"E25°24'56.199"N
565	Xunle	Quan'an	1100	0003	108°18'32.229"E25°22'47.424"N	108°18'17.970"E25°22'38.267"N	108°18'17.142"E25°22'38.398"N	108°18'27.542"E25°22'51.190"N
566	Xunle	Quan'an	1200	0015	108°17'10.144"E25°22'30.519"N	108°17'4.567"E25°22'22.788"N	108°16'59.699"E25°22'28.308"N	108°17'5.077"E25°22'33.117"N
567	Xunle	Taiping	0400	0015	108°19'34.005"E25°18'42.669"N	108°19'22.905"E25°18'36.882"N	108°19'19.589"E25°18'40.224"N	108°19'22.155"E25°18'45.871"N
568	Xunle	Taiping	1000	0013	108°19'25.685"E25°16'51.155"N	108°19'17.925"E25°16'40.427"N	108°19'14.873"E25°16'50.766"N	108°19'16.542"E25°16'53.594"N
569	Xunle	Taiping	1200	0043	108°20'30.665"E25°15'28.098"N	108°20'22.055"E25°15'24.301"N	108°20'11.364"E25°15'31.476"N	108°20'15.256"E25°15'39.038"N
570	Xunle	Taiping	1200	0106	108°20'13.239"E25°15'5.165"N	108°19'55.497"E25°14'56.506"N	108°19'41.291"E25°15'2.098"N	108°20'4.274"E25°15'6.082"N
571	Xunle	Shangang	1800	0074	108°18'25.687"E25°29'24.657"N	108°18'20.059"E25°29'20.746"N	108°18'12.917"E25°29'24.062"N	108°18'19.015"E25°29'30.678"N
572	Xunle	Pingmo	0200	0002	108°15'34.717"E25°20'41.205"N	108°15'28.200"E25°20'13.055"N	108°15'14.218"E25°20'33.464"N	108°15'30.931"E25°20'42.327"N
573	Xunle	Pingmo	1500	0032	108°16'21.954"E25°17'20.591"N	108°16'13.095"E25°17'17.383"N	108°16'1.306"E25°17'23.879"N	108°16'5.195"E25°17'24.517"N
574	Xunle	Pingzhi	2600	0009	108°13'29.825"E25°16'21.006"N	108°13'26.824"E25°16'13.073"N	108°13'23.991"E25°16'30.122"N	108°13'25.818"E25°16'34.443"N
575	Xunle	Kangning	0300	0002	108°9'50.397"E25°26'55.433"N	108°9'34.094"E25°26'44.377"N	108°9'32.979"E25°26'44.608"N	108°9'50.104"E25°26'56.307"N
576	Xunle	Kangning	0700	0028	108°13'16.841"E25°25'54.011"N	108°13'0.107"E25°25'52.671"N	108°12'56.794"E25°25'59.868"N	108°13'2.938"E25°26'4.351"N
577	Xunle	Fushou	0800	0005	108°14'43.179"E25°25'14.343"N	108°14'33.524"E25°25'7.821"N	108°14'31.958"E25°25'8.413"N	108°14'39.884"E25°25'19.680"N
578	Xunle	Fushou	1000	0041	108°14'59.583"E25°23'35.234"N	108°14'58.677"E25°23'34.660"N	108°14'46.703"E25°23'46.969"N	108°14'55.651"E25°23'47.793"N
579	Xunle	Fushou	1100	0002	108°14'23.672"E25°23'27.503"N	108°14'18.154"E25°23'14.828"N	108°14'2.359"E25°23'34.263"N	108°14'15.903"E25°23'34.389"N
580	Xunle	Fushou	1100	0003	108°14'46.166"E25°23'14.445"N	108°14'25.953"E25°23'11.214"N	108°14'19.806"E25°23'31.269"N	108°14'21.102"E25°23'34.286"N
581	Xunle	Zhenbei	0600	0013	108°15'10.369"E25°27'9.042"N	108°15'2.888"E25°27'1.381"N	108°14'57.992"E25°27'9.085"N	108°15'1.633"E25°27'12.496"N
582	Xunle	Zhenbei	0600	0018	108°15'30.803"E25°26'52.800"N	108°15'23.850"E25°26'42.268"N	108°15'10.845"E25°26'59.367"N	108°15'20.710"E25°27'4.827"N
583	Xunle	Zhenbei	0900	0006	108°15'47.225"E25°26'56.072"N	108°15'45.636"E25°26'55.563"N	108°15'32.278"E25°26'59.566"N	108°15'35.977"E25°27'7.695"N
584	Xunle	Changbei	0200	0070	108°19'35.718"E25°27'29.038"N	108°19'29.032"E25°27'24.792"N	108°19'23.028"E25°27'32.126"N	108°19'28.539"E25°27'34.709"N
585	Xunle	Changbei	0600	0046	108°20'16.178"E25°26'41.221"N	108°20'12.576"E25°26'33.295"N	108°20'6.284"E25°26'38.980"N	108°20'13.458"E25°26'43.626"N
586	Xunle	Shunning	0800	0039	108°13'5.165"E25°22'9.669"N	108°12'52.749"E25°22'4.103"N	108°12'45.144"E25°22'8.972"N	108°13'1.435"E25°22'17.024"N
587	Longyan	Jiule	0900	0098	108°27'18.546"E25°17'27.879"N	108°27'16.420"E25°17'22.875"N	108°27'8.020"E25°17'30.053"N	108°27'9.974"E25°17'31.705"N
588	Longyan	Anshan	0100	0097	108°32'25.746"E25°15'15.000"N	108°32'6.352"E25°15'6.760"N	108°32'4.186"E25°15'7.561"N	108°32'19.407"E25°15'19.949"N

589	Longyan	Anshan	0600	0007	108°31'26.147"E25°15'45.779"N	108°31'14.480"E25°15'38.847"N	108°31'12.022"E25°15'41.572"N	108°31'23.990"E25°15'49.790"N
590	Longyan	Anshan	0600	0129	108°31'50.717"E25°14'52.155"N	108°31'39.533"E25°14'41.923"N	108°31'33.707"E25°14'45.823"N	108°31'44.527"E25°14'53.499"N
591	Longyan	Guangrong	0300	0035	108°26'58.570"E25°22'37.331"N	108°26'47.446"E25°22'34.808"N	108°26'42.282"E25°22'36.689"N	108°26'49.958"E25°22'39.747"N
592	Longyan	Ganyan	0100	0036	108°29'39.602"E25°24'35.123"N	108°29'34.299"E25°24'32.519"N	108°29'20.742"E25°24'39.478"N	108°29'33.015"E25°24'56.072"N
593	Longyan	Ganyan	0600	0012	108°29'15.468"E25°24'20.890"N	108°29'11.112"E25°24'14.053"N	108°29'6.054"E25°24'22.181"N	108°29'9.752"E25°24'25.986"N
594	Longyan	Ganyan	1000	0085	108°29'0.746"E25°23'2.078"N	108°28'58.431"E25°23'0.728"N	108°28'50.403"E25°23'3.379"N	108°28'55.659"E25°23'14.671"N
595	Longyan	Ganyan	1200	0079	108°29'53.710"E25°22'37.064"N	108°29'38.421"E25°22'29.702"N	108°29'37.069"E25°22'29.777"N	108°29'49.716"E25°22'38.193"N
596	Longyan	Chaoge	0100	0004	108°31'56.185"E25°24'38.787"N	108°31'55.473"E25°24'37.877"N	108°31'42.135"E25°24'41.414"N	108°31'54.786"E25°24'45.877"N
597	Longyan	Chaoge	0100	0005	108°32'23.517"E25°24'38.307"N	108°32'16.745"E25°24'34.195"N	108°31'59.130"E25°24'43.927"N	108°31'59.659"E25°24'44.597"N
598	Longyan	Chaoge	0700	0016	108°30'48.921"E25°23'22.211"N	108°30'41.979"E25°23'13.188"N	108°30'27.711"E25°23'24.066"N	108°30'31.289"E25°23'27.472"N
599	Longyan	Chaoge	1800	0006	108°33'40.019"E25°21'37.031"N	108°33'31.174"E25°21'23.601"N	108°33'18.857"E25°21'38.328"N	108°33'31.069"E25°21'39.221"N
600	Longyan	Kenlan	0200	0164	108°30'42.161"E25°19'43.778"N	108°30'33.453"E25°19'36.467"N	108°30'32.848"E25°19'38.773"N	108°30'38.925"E25°19'46.007"N
601	Longyan	Dadong	0400	0102	108°28'46.328"E25°26'0.386"N	108°28'40.075"E25°25'57.818"N	108°28'30.452"E25°26'3.394"N	108°28'38.361"E25°26'5.786"N
602	Longyan	Dake	0400	0009	108°34'47.004"E25°18'52.590"N	108°34'45.685"E25°18'50.411"N	108°34'38.238"E25°18'54.782"N	108°34'43.640"E25°19'1.233"N
603	Longyan	Dake	1600	0179	108°32'29.926"E25°16'42.547"N	108°32'19.218"E25°16'38.424"N	108°32'9.032"E25°16'55.039"N	108°32'18.234"E25°16'59.707"N
604	Longyan	Dake	1700	0040	108°31'18.512"E25°17'47.116"N	108°31'18.125"E25°17'45.685"N	108°30'58.905"E25°17'59.554"N	108°31'7.272"E25°18'8.049"N
605	Longyan	Dake	1800	0081	108°30'27.315"E25°17'15.808"N	108°30'9.889"E25°17'4.866"N	108°30'9.889"E25°17'4.866"N	108°30'23.370"E25°17'22.387"N
606	Longyan	Huangzhong	0400	0085	108°23'39.604"E25°25'56.884"N	108°23'35.432"E25°25'53.641"N	108°23'18.047"E25°25'57.491"N	108°23'22.971"E25°26'0.540"N
607	Xia'nan	Jingyang	0900	0016	107°54'33.874"E24°58'30.363"N	107°54'7.666"E24°58'22.675"N	107°54'7.375"E24°58'23.021"N	107°54'29.204"E24°58'32.228"N
608	Chuanshan	Hedun	0900	0052	108°6'35.951"E25°9'31.348"N	108°6'25.609"E25°9'14.780"N	108°6'22.211"E25°9'23.149"N	108°6'34.563"E25°9'32.350"N
609	Minglun	Bamian	1600	0023	108°24'30.475"E25°4'32.950"N	108°24'12.926"E25°4'18.734"N	108°24'8.188"E25°4'25.416"N	108°24'22.304"E25°4'36.936"N
610	Minglun	Cuishan	0200	0041	108°22'48.697"E25°19'16.685"N	108°22'41.702"E25°18'55.273"N	108°22'34.703"E25°19'14.472"N	108°22'42.683"E25°19'21.155"N
611	Minglun	Haodong	0800	0033	108°20'1.791"E25°8'32.171"N	108°19'49.679"E25°8'25.989"N	108°19'48.353"E25°8'27.599"N	108°19'59.625"E25°8'34.529"N
612	Minglun	Longshui	0200	0069	108°20'35.778"E25°14'27.540"N	108°20'30.439"E25°14'17.265"N	108°20'26.596"E25°14'23.843"N	108°20'30.332"E25°14'33.555"N
613	Xia'nan	Yifeng	0400	0019	108°5'18.595"E24°58'47.058"N	108°5'16.710"E24°58'44.518"N	108°5'6.543"E24°58'49.487"N	108°5'13.033"E24°58'55.149"N
614	Xia'nan	Tangba	0300	0011	108°0'26.116"E24°54'38.098"N	108°0'20.049"E24°54'28.200"N	108°0'20.049"E24°54'28.200"N	108°0'23.176"E24°54'50.008"N
615	Dongxing	Ping'an	1000	0019	108°41'13.621"E25°10'3.882"N	108°41'10.892"E25°10'2.658"N	108°41'2.418"E25°10'10.528"N	108°41'4.198"E25°10'11.332"N

616	Huashan Forest Farm	Huanshan Branch Farm	0600	0032	108°17'45.747"E25°7'18.341"N	108°17'43.414"E25°7'13.760"N	108°17'36.413"E25°7'17.404"N	108°17'39.569"E25°7'20.000"N
617	Huashan Forest Farm	Huanshan Branch Farm	1400	0031	108°16'18.992"E25°6'17.228"N	108°16'18.317"E25°6'5.522"N	108°16'12.457"E25°6'12.844"N	108°16'17.700"E25°6'19.753"N
618	Huashan Forest Farm	Dashabo Branch Farm	1000	0053	108°6'25.436"E25°10'54.516"N	108°6'22.297"E25°10'52.874"N	108°6'7.113"E25°10'57.504"N	108°6'13.720"E25°11'1.348"N
619	Huashan Forest Farm	Yalong Branch Farm	0500	0024	108°34'52.981"E25°1'28.664"N	108°34'50.900"E25°1'27.709"N	108°34'33.823"E25°1'30.826"N	108°34'46.775"E25°1'35.064"N
620	Da'an	Tangfang	0700	0012	108°16'4.090"E24°56'32.243"N	108°15'55.519"E24°56'27.375"N	108°15'53.563"E24°56'33.773"N	108°15'56.800"E24°56'39.564"N
621	Da'an	Da'an	0900	0033	108°16'41.061"E24°53'45.634"N	108°16'36.532"E24°53'39.901"N	108°16'31.977"E24°53'43.484"N	108°16'33.910"E24°53'47.647"N
622	Tiancai	Tongjin	0100	0048	108°19'32.751"E24°48'14.052"N	108°19'31.395"E24°48'7.559"N	108°19'25.512"E24°48'9.372"N	108°19'30.320"E24°48'21.752"N
623	Tiancai	Tongjin	0500	0037	108°19'24.000"E24°47'32.970"N	108°19'16.964"E24°47'18.482"N	108°19'11.715"E24°47'23.972"N	108°19'19.999"E24°47'34.174"N
624	Tiancai	Tongjin	0700	0067	108°19'36.699"E24°46'1.016"N	108°19'33.330"E24°45'58.401"N	108°19'27.697"E24°46'3.341"N	108°19'33.335"E24°46'7.149"N
625	Chuanshan	Hedun	1100	0043	108°8'22.289"E25°9'41.375"N	108°8'16.903"E25°9'37.001"N	108°8'9.501"E25°9'40.212"N	108°8'18.885"E25°9'50.792"N
626	Chuanshan	Gubin	0600	0059	108°8'50.618"E25°3'34.840"N	108°8'41.370"E25°3'32.078"N	108°8'33.578"E25°3'33.589"N	108°8'38.379"E25°3'37.800"N
627	Si'en	Aishan Forest Farm	0200	0031	108°15'27.549"E24°49'16.950"N	108°15'21.161"E24°49'10.435"N	108°15'17.116"E24°49'13.143"N	108°15'22.471"E24°49'18.444"N
628	Changmei	Aidong	0400	0105	108°23'59.384"E24°59'33.952"N	108°23'45.200"E24°59'22.132"N	108°23'45.199"E24°59'22.204"N	108°23'59.384"E24°59'33.952"N
629	Xunle	Taiping	0600	0053	108°21'42.032"E25°17'12.697"N	108°21'40.184"E25°17'9.972"N	108°21'19.869"E25°17'19.376"N	108°21'26.147"E25°17'24.746"N
630	Longyan	Jiule	0900	0083	108°27'9.915"E25°17'18.171"N	108°27'9.381"E25°17'17.670"N	108°26'38.451"E25°17'31.835"N	108°26'49.271"E25°17'35.600"N
631	Longyan	Jiuwei	0300	0075	108°22'29.001"E25°21'29.953"N	108°22'24.943"E25°21'28.687"N	108°22'15.441"E25°21'38.159"N	108°22'22.740"E25°21'40.824"N
632	Longyan	Jiuwei	0500	0059	108°22'59.652"E25°20'16.269"N	108°22'54.478"E25°20'8.724"N	108°22'50.543"E25°20'12.848"N	108°22'59.652"E25°20'16.269"N
633	Longyan	Chenghuang	0200	0024	108°21'49.103"E25°23'58.681"N	108°21'44.989"E25°23'51.491"N	108°21'42.309"E25°23'55.782"N	108°21'48.512"E25°24'1.028"N
634	Longyan	Chenghuang	0200	0038	108°22'22.149"E25°23'47.618"N	108°22'12.522"E25°23'43.434"N	108°22'9.216"E25°23'44.839"N	108°22'12.186"E25°23'51.821"N
635	Longyan	Chenghuang	0400	0118	108°23'43.222"E25°24'5.444"N	108°23'40.545"E25°24'3.732"N	108°23'31.986"E25°24'8.648"N	108°23'37.352"E25°24'10.483"N
636	Longyan	Chenghuang	0500	0020	108°24'27.435"E25°23'45.883"N	108°24'24.327"E25°23'43.367"N	108°24'9.590"E25°23'52.999"N	108°24'19.532"E25°24'0.714"N
637	Longyan	Anshan	1500	0017	108°30'6.579"E25°12'54.747"N	108°30'2.800"E25°12'50.725"N	108°29'58.932"E25°13'0.547"N	108°30'5.135"E25°13'5.868"N
638	Longyan	Dadong	1000	0065	108°28'0.077"E25°25'0.014"N	108°27'58.781"E25°24'59.749"N	108°27'50.226"E25°25'14.701"N	108°27'53.212"E25°25'14.933"N
639	Longyan	Huangzhong	0100	0033	108°23'33.521"E25°27'18.551"N	108°23'24.436"E25°27'13.893"N	108°23'23.886"E25°27'14.585"N	108°23'26.229"E25°27'20.770"N
640	Longyan	Huangzhong	0300	0107	108°24'3.544"E25°26'31.991"N	108°23'57.347"E25°26'21.594"N	108°23'56.597"E25°26'22.459"N	108°24'3.178"E25°26'32.116"N
641	Longyan	Huangzhong	0400	0034	108°23'24.041"E25°26'18.500"N	108°23'20.301"E25°26'14.027"N	108°23'6.128"E25°26'17.583"N	108°23'20.942"E25°26'23.724"N
642	Longyan	Huangzhong	0500	0082	108°22'37.056"E25°26'14.254"N	108°22'33.074"E25°26'12.484"N	108°22'22.405"E25°26'22.219"N	108°22'25.867"E25°26'24.816"N

643	Longyan	Huangzhong	0900	0098	108°26'6.433"E25°26'42.908"N	108°26'5.825"E25°26'42.419"N	108°25'54.284"E25°26'47.319"N	108°25'57.858"E25°26'48.833"N
644	Longyan	Huangzhong	1300	0038	108°26'14.840"E25°25'21.797"N	108°26'10.042"E25°25'16.724"N	108°25'59.828"E25°25'24.623"N	108°26'1.026"E25°25'24.701"N
645	Longyan	Huangzhong	1400	0095	108°25'44.929"E25°25'21.253"N	108°25'26.991"E25°25'15.717"N	108°25'26.811"E25°25'16.278"N	108°25'34.617"E25°25'23.204"N
646	Longyan	Huangzhong	1600	0008	108°23'58.670"E25°25'52.001"N	108°23'55.556"E25°25'43.159"N	108°23'51.532"E25°25'47.144"N	108°23'53.309"E25°25'55.745"N
647	Longyan	Huangzhong	1600	0082	108°23'41.196"E25°25'20.564"N	108°23'38.582"E25°25'14.213"N	108°23'33.183"E25°25'17.445"N	108°23'37.373"E25°25'22.557"N
648	Longyan	Huangzhong	2000	0158	108°27'24.430"E25°24'0.892"N	108°27'24.021"E25°24'0.648"N	108°27'10.852"E25°24'10.195"N	108°27'19.797"E25°24'16.999"N
649	Longyan	Huangzhong	2400	0014	108°25'57.743"E25°22'36.342"N	108°25'54.237"E25°22'29.500"N	108°25'36.037"E25°23'0.457"N	108°25'39.668"E25°23'1.930"N
650	Longyan	Longyan	0100	0028	108°30'28.099"E25°18'10.105"N	108°30'18.886"E25°18'7.848"N	108°30'17.847"E25°18'11.879"N	108°30'27.169"E25°18'12.878"N
651	Longyan	Longyan	1100	0055	108°29'26.851"E25°15'29.109"N	108°29'17.383"E25°15'15.874"N	108°29'11.131"E25°15'24.375"N	108°29'21.651"E25°15'33.289"N
652	Xia'nan	Yuhuan	0300	0002	107°59'56.176"E24°53'35.524"N	107°59'38.679"E24°53'28.210"N	107°59'37.312"E24°53'30.377"N	107°59'46.908"E24°53'41.865"N
653	Xia'nan	Yuhuan	0700	0013	107°59'40.229"E24°52'52.388"N	107°59'33.332"E24°52'35.534"N	107°59'31.777"E24°52'38.036"N	107°59'39.272"E24°52'53.182"N
654	Dongxing	Dongxing	0700	0069	108°33'40.216"E25°9'16.104"N	108°33'37.044"E25°9'11.668"N	108°33'29.772"E25°9'21.938"N	108°33'31.127"E25°9'25.007"N
655	Dongxing	Dongxing	1000	0016	108°32'44.269"E25°9'33.572"N	108°32'32.721"E25°9'30.521"N	108°32'27.953"E25°9'33.469"N	108°32'36.088"E25°9'42.532"N
656	Dongxing	Weicai	0600	0062	108°32'18.820"E25°12'38.552"N	108°32'3.480"E25°12'31.822"N	108°31'54.459"E25°12'40.138"N	108°32'11.654"E25°12'43.686"N
657	Dongxing	Weicai	0600	0070	108°32'52.827"E25°12'36.804"N	108°32'28.157"E25°12'26.999"N	108°32'26.099"E25°12'32.339"N	108°32'40.988"E25°12'40.233"N
658	Dongxing	Weicai	1100	0003	108°33'30.252"E25°11'59.668"N	108°33'29.407"E25°11'58.185"N	108°33'12.655"E25°12'5.998"N	108°33'24.418"E25°12'12.432"N
659	Dongxing	Jiudeng	0300	0034	108°36'9.311"E25°9'20.503"N	108°36'5.400"E25°9'12.594"N	108°35'56.589"E25°9'16.914"N	108°36'0.074"E25°9'22.785"N
660	Dongxing	Jiudeng	1500	0041	108°34'32.353"E25°7'47.292"N	108°34'21.113"E25°7'28.600"N	108°34'13.844"E25°7'33.303"N	108°34'30.147"E25°7'51.798"N
661	Dongxing	Jiaxing	0400	0048	108°31'18.259"E25°5'42.152"N	108°31'11.709"E25°5'32.173"N	108°31'9.146"E25°5'35.889"N	108°31'16.941"E25°5'43.147"N
662	Dongxing	Jiaxing	0700	0020	108°32'1.821"E25°5'13.189"N	108°32'0.264"E25°5'12.531"N	108°31'45.737"E25°5'20.758"N	108°31'48.776"E25°5'23.071"N
663	Dongxing	Jiaxing	0800	0046	108°32'41.489"E25°4'23.290"N	108°32'30.549"E25°4'18.961"N	108°32'8.755"E25°4'26.047"N	108°32'13.504"E25°4'35.162"N
664	Dongxing	Jiaxing	1000	0006	108°32'12.763"E25°3'45.237"N	108°32'2.387"E25°3'31.239"N	108°31'59.170"E25°3'33.854"N	108°32'6.766"E25°3'49.724"N
665	Dongxing	Jiaxing	1300	0005	108°30'19.272"E25°5'20.750"N	108°30'12.586"E25°5'12.242"N	108°30'8.175"E25°5'15.299"N	108°30'12.163"E25°5'26.595"N
666	Dongxing	Ping'an	2100	0002	108°40'42.493"E25°9'55.266"N	108°40'34.818"E25°9'48.579"N	108°40'21.826"E25°9'58.435"N	108°40'25.988"E25°10'6.401"N
667	Dongxing	Ping'an	2500	0021	108°40'2.347"E25°8'35.315"N	108°39'57.332"E25°8'32.550"N	108°39'44.989"E25°8'34.261"N	108°39'45.856"E25°8'39.372"N
668	Dongxing	Ping'an	2600	0002	108°39'56.235"E25°8'14.748"N	108°39'48.513"E25°8'11.255"N	108°39'34.411"E25°8'19.237"N	108°39'35.204"E25°8'19.893"N
669	Dongxing	Ping'an	2600	0040	108°39'38.498"E25°7'49.195"N	108°39'37.095"E25°7'43.490"N	108°39'3.204"E25°8'0.397"N	108°39'4.587"E25°8'0.864"N

670	Dongxing	Ping'an	2600	0044	108°39'50.351"E25°7'50.809"N	108°39'43.226"E25°7'43.260"N	108°39'37.217"E25°7'52.556"N	108°39'40.551"E25°7'58.669"N
671	Dongxing	Ping'an	3400	0022	108°41'38.322"E25°6'19.329"N	108°41'27.575"E25°6'10.331"N	108°41'22.958"E25°6'11.369"N	108°41'37.295"E25°6'21.657"N
672	Dongxing	Ping'an	3600	0025	108°40'0.694"E25°5'51.286"N	108°39'54.081"E25°5'44.539"N	108°39'47.718"E25°5'51.717"N	108°39'48.034"E25°5'54.595"N
673	Dongxing	Ping'an	4000	0007	108°38'27.881"E25°6'0.665"N	108°38'26.079"E25°5'59.317"N	108°38'15.338"E25°6'13.332"N	108°38'17.186"E25°6'14.503"N
674	Dongxing	Ping'an	4400	0054	108°40'49.924"E25°5'15.276"N	108°40'36.211"E25°5'7.301"N	108°40'30.901"E25°5'27.046"N	108°40'30.901"E25°5'27.046"N
675	Dongxing	Ping'an	4400	0058	108°40'7.526"E25°5'20.361"N	108°40'3.035"E25°5'15.678"N	108°39'54.778"E25°5'24.156"N	108°39'55.741"E25°5'26.623"N
676	Dongxing	Ping'an	4400	0078	108°40'28.097"E25°5'10.123"N	108°40'15.146"E25°5'8.767"N	108°40'11.131"E25°5'9.618"N	108°40'19.545"E25°5'16.326"N
677	Dongxing	Ping'an	5200	0016	108°38'16.371"E25°3'36.707"N	108°38'2.752"E25°3'27.519"N	108°37'57.814"E25°3'29.581"N	108°38'14.537"E25°3'38.922"N
678	Dongxing	Caille	0600	0019	108°31'25.350"E25°6'26.736"N	108°31'19.945"E25°6'19.601"N	108°31'14.014"E25°6'22.745"N	108°31'16.354"E25°6'29.880"N
679	Dongxing	Biaoshan	0600	0056	108°36'12.433"E25°13'31.135"N	108°36'11.325"E25°13'24.731"N	108°35'54.376"E25°13'39.311"N	108°35'55.950"E25°13'41.612"N
680	Dongxing	Biaoshan	1200	0002	108°36'52.529"E25°13'43.407"N	108°36'43.720"E25°13'39.945"N	108°36'25.466"E25°13'46.324"N	108°36'40.846"E25°13'53.280"N
681	Dongxing	Biaoshan	1900	0007	108°34'39.025"E25°12'57.806"N	108°34'34.161"E25°12'49.760"N	108°34'13.795"E25°12'58.234"N	108°34'22.884"E25°13'5.155"N
682	Dongxing	Biaoshan	2000	0004	108°33'59.757"E25°12'16.453"N	108°33'49.678"E25°12'14.370"N	108°33'43.470"E25°12'23.482"N	108°33'45.667"E25°12'24.523"N
683	Dongxing	Biaoshan	2000	0015	108°33'57.672"E25°12'7.792"N	108°33'37.644"E25°12'1.221"N	108°33'35.734"E25°12'4.503"N	108°33'51.807"E25°12'8.457"N
684	Dongxing	Biaoshan	2700	0017	108°34'55.326"E25°11'37.706"N	108°34'39.654"E25°11'25.295"N	108°34'37.471"E25°11'29.349"N	108°34'55.318"E25°11'37.707"N
685	Dongxing	Biaoshan	2700	0048	108°34'18.482"E25°11'15.923"N	108°34'2.570"E25°11'6.153"N	108°34'2.570"E25°11'6.153"N	108°34'13.881"E25°11'20.164"N
686	Dongxing	Biaoshan	2800	0034	108°34'43.376"E25°11'51.465"N	108°34'36.485"E25°11'41.618"N	108°34'14.346"E25°11'48.372"N	108°34'41.608"E25°11'56.677"N
687	Dongxing	Biaoshan	3000	0018	108°35'43.028"E25°11'5.246"N	108°35'27.980"E25°10'58.031"N	108°35'22.490"E25°11'2.168"N	108°35'33.698"E25°11'8.217"N
688	Dongxing	Duya	1900	0030	108°31'57.301"E25°2'59.311"N	108°31'49.800"E25°2'54.906"N	108°31'38.116"E25°3'0.299"N	108°31'40.460"E25°3'5.411"N
689	Dongxing	Chashan	0700	0004	108°35'46.975"E25°17'12.397"N	108°35'46.123"E25°17'10.203"N	108°35'36.990"E25°17'15.051"N	108°35'38.797"E25°17'17.974"N
690	Dongxing	Chashan	0900	0009	108°34'38.278"E25°16'19.860"N	108°34'37.137"E25°16'18.429"N	108°34'27.975"E25°16'27.863"N	108°34'32.185"E25°16'40.135"N
691	Dongxing	Chashan	1600	0026	108°35'11.005"E25°15'30.400"N	108°35'10.257"E25°15'25.331"N	108°35'3.701"E25°15'29.795"N	108°35'7.872"E25°15'35.447"N
692	Dongxing	Chashan	1900	0046	108°34'6.833"E25°15'45.706"N	108°33'49.232"E25°15'29.698"N	108°33'46.154"E25°15'34.219"N	108°34'3.614"E25°15'50.350"N
693	Dongxing	Chashan	2000	0002	108°33'36.485"E25°15'45.575"N	108°33'33.733"E25°15'45.389"N	108°32'59.240"E25°15'58.424"N	108°33'3.582"E25°16'6.287"N
694	Dongxing	Chashan	2900	0026	108°33'6.621"E25°13'41.543"N	108°33'5.047"E25°13'37.121"N	108°32'58.180"E25°13'44.688"N	108°33'0.329"E25°13'48.069"N
695	Dongxing	Chashan	3100	0050	108°34'0.873"E25°12'57.947"N	108°33'53.796"E25°12'51.138"N	108°33'44.466"E25°12'58.728"N	108°33'52.601"E25°13'5.893"N
696	Dongxing	Daxing	0200	0003	108°37'58.287"E25°7'46.082"N	108°37'44.268"E25°7'38.921"N	108°37'38.033"E25°7'42.267"N	108°37'44.664"E25°7'53.090"N

697	Dongxing	Daxing	0900	0001	108°35'5.434"E25°7'20.590"N	108°34'57.729"E25°7'9.987"N	108°34'54.703"E25°7'10.271"N	108°34'57.983"E25°7'34.314"N
698	Dongxing	Daxing	1500	0043	108°37'46.688"E25°5'32.524"N	108°37'42.875"E25°5'28.361"N	108°37'27.871"E25°5'38.493"N	108°37'29.054"E25°5'39.053"N
699	Dongxing	Longcheng	0200	0024	108°36'58.093"E25°4'40.735"N	108°36'51.620"E25°4'37.511"N	108°36'38.489"E25°4'51.763"N	108°36'53.434"E25°4'58.329"N
700	Dongxing	Longcheng	0700	0004	108°35'7.411"E25°4'27.037"N	108°34'49.219"E25°4'14.512"N	108°34'48.232"E25°4'14.964"N	108°34'55.885"E25°4'29.545"N
701	Dongxing	Longcheng	0900	0033	108°34'39.828"E25°4'41.028"N	108°34'35.700"E25°4'15.912"N	108°34'20.455"E25°4'21.723"N	108°34'37.210"E25°4'46.582"N
702	Dongxing	Longcheng	0900	0034	108°34'32.034"E25°4'42.501"N	108°34'21.257"E25°4'23.501"N	108°34'8.664"E25°4'34.773"N	108°34'25.998"E25°4'45.917"N
703	Dongxing	Longcheng	1100	0053	108°33'28.461"E25°5'15.659"N	108°33'3.368"E25°5'7.617"N	108°32'59.610"E25°5'17.918"N	108°33'11.177"E25°5'21.693"N
704	Dongxing	Longcheng	1200	0045	108°33'56.825"E25°5'54.258"N	108°33'38.272"E25°5'41.162"N	108°33'29.713"E25°5'46.481"N	108°33'47.632"E25°5'59.256"N
705	Dongxing	Longcheng	1400	0052	108°32'48.550"E25°2'59.922"N	108°32'29.972"E25°2'55.355"N	108°32'18.118"E25°3'15.584"N	108°32'21.547"E25°3'26.080"N
706	Dongxing	Longcheng	1500	0027	108°33'56.127"E25°3'6.557"N	108°33'46.322"E25°2'51.847"N	108°33'33.441"E25°2'59.432"N	108°33'44.525"E25°3'11.841"N
707	Dongxing	Longcheng	1600	0021	108°34'21.388"E25°3'20.714"N	108°34'7.284"E25°3'15.173"N	108°34'6.521"E25°3'21.159"N	108°34'15.349"E25°3'34.146"N
708	Dongxing	Longcheng	1700	0014	108°34'52.628"E25°3'23.925"N	108°34'41.846"E25°3'15.748"N	108°34'34.057"E25°3'19.717"N	108°34'41.925"E25°3'40.666"N
709	Dongxing	Longcheng	1800	0043	108°36'3.500"E25°2'38.034"N	108°35'59.283"E25°2'35.400"N	108°35'53.251"E25°2'43.652"N	108°35'59.025"E25°2'45.180"N
710	Dongxing	Longcheng	1800	0047	108°35'21.742"E25°2'43.098"N	108°35'6.250"E25°2'36.675"N	108°35'4.645"E25°2'38.679"N	108°35'15.909"E25°2'44.363"N
711	Dongxing	Longcheng	1900	0028	108°34'12.997"E25°2'37.556"N	108°33'55.265"E25°2'30.572"N	108°33'51.313"E25°2'32.821"N	108°34'4.551"E25°2'45.408"N
712	Dongxing	Longcheng	1900	0106	108°34'6.242"E25°2'1.482"N	108°34'4.946"E25°2'1.434"N	108°33'50.293"E25°2'3.788"N	108°33'52.366"E25°2'7.886"N
713	Dongxing	Longcheng	2100	0057	108°35'41.124"E25°1'30.149"N	108°35'31.115"E25°1'17.747"N	108°35'27.993"E25°1'22.787"N	108°35'40.932"E25°1'32.200"N
714	Huashan Forest Farm	Beishan Branch Farm	0500	0010	108°14'33.854"E25°13'59.751"N	108°14'29.716"E25°13'54.919"N	108°14'21.901"E25°14'0.890"N	108°14'22.204"E25°14'2.233"N
715	Da'an	Da'an	0600	0006	108°18'45.807"E24°54'38.163"N	108°18'44.798"E24°54'37.329"N	108°18'35.952"E24°54'42.162"N	108°18'40.144"E24°54'45.674"N
716	Da'an	Caiping	0100	0052	108°20'5.265"E24°58'27.244"N	108°20'2.409"E24°58'24.151"N	108°19'57.196"E24°58'30.011"N	108°20'1.558"E24°58'37.115"N
717	Da'an	Jinqiao	0500	0027	108°23'25.187"E25°2'14.595"N	108°23'1.247"E25°1'41.304"N	108°23'0.898"E25°1'46.922"N	108°23'20.587"E25°2'17.209"N
718	Da'an	Jinqiao	1300	0002	108°19'4.839"E25°2'23.852"N	108°18'55.396"E25°2'3.830"N	108°18'49.205"E25°2'11.864"N	108°19'3.353"E25°2'25.408"N
719	Da'an	Jinqiao	1300	0020	108°18'57.681"E25°1'51.179"N	108°18'54.361"E25°1'45.022"N	108°18'43.598"E25°1'49.709"N	108°18'52.322"E25°1'55.908"N
720	Da'an	Jinqiao	1300	0021	108°19'26.135"E25°1'31.816"N	108°19'25.894"E25°1'31.550"N	108°19'13.634"E25°1'47.965"N	108°19'18.991"E25°1'52.842"N
721	Da'an	Jinqiao	1400	0062	108°20'7.534"E25°1'6.982"N	108°19'57.039"E25°1'1.288"N	108°19'56.188"E25°1'3.140"N	108°20'7.157"E25°1'7.268"N
722	Da'an	Jinqiao	2100	0024	108°23'45.700"E25°0'51.072"N	108°23'44.464"E25°0'47.093"N	108°23'39.285"E25°0'47.415"N	108°23'42.814"E25°0'57.429"N
723	Chuanshan	Xiafeng	0500	0111	108°3'16.308"E25°4'28.032"N	108°3'5.326"E25°4'11.065"N	108°3'3.556"E25°4'12.753"N	108°3'10.208"E25°4'30.582"N

724	Chuanshan	Xiagan	0300	0014	108°2'12.490"E25°4'9.949"N	108°2'4.765"E25°4'8.534"N	108°2'2.808"E25°4'14.113"N	108°2'6.566"E25°4'16.686"N
725	Chuanshan	Leyi	0600	0030	108°0'28.929"E25°6'13.680"N	108°0'25.809"E25°6'3.501"N	108°0'16.242"E25°6'12.455"N	108°0'22.481"E25°6'16.812"N
726	Chuanshan	Wuwei	0400	0013	108°7'0.304"E25°7'16.267"N	108°6'50.208"E25°7'0.409"N	108°6'40.172"E25°7'7.305"N	108°6'50.746"E25°7'17.811"N
727	Chuanshan	Wuwei	0500	0023	108°8'21.981"E25°6'50.885"N	108°8'15.758"E25°6'48.913"N	108°8'8.060"E25°6'51.557"N	108°8'15.288"E25°6'57.069"N
728	Chuanshan	Wuwei	0900	0027	108°10'21.977"E25°6'25.475"N	108°10'20.047"E25°6'22.846"N	108°10'6.241"E25°6'35.613"N	108°10'9.574"E25°6'39.328"N
729	Chuanshan	Hedun	0600	0061	108°4'13.550"E25°9'42.497"N	108°3'51.715"E25°9'24.617"N	108°3'51.708"E25°9'24.617"N	108°4'13.188"E25°9'44.834"N
730	Chuanshan	Hedun	0700	0133	108°5'2.532"E25°8'39.552"N	108°4'54.127"E25°8'33.983"N	108°4'50.030"E25°8'37.669"N	108°4'54.909"E25°8'43.566"N
731	Chuanshan	Hedun	1000	0010	108°6'49.771"E25°8'56.758"N	108°6'40.886"E25°8'50.728"N	108°6'39.374"E25°8'51.227"N	108°6'41.304"E25°9'1.278"N
732	Chuanshan	Hedun	1400	0029	108°10'31.714"E25°8'45.981"N	108°10'10.521"E25°8'30.512"N	108°10'3.725"E25°8'40.767"N	108°10'10.878"E25°8'50.183"N
733	Chuanshan	Hedun	1500	0049	108°9'55.818"E25°8'8.463"N	108°9'51.450"E25°8'3.853"N	108°9'44.376"E25°8'14.209"N	108°9'45.483"E25°8'15.045"N
734	Chuanshan	Hedun	1600	0019	108°8'54.990"E25°7'52.357"N	108°8'54.389"E25°7'40.104"N	108°8'44.214"E25°7'51.252"N	108°8'50.565"E25°8'3.988"N
735	Chuanshan	Hedun	1700	0008	108°8'54.861"E25°9'9.885"N	108°8'29.765"E25°8'53.452"N	108°8'29.374"E25°8'53.495"N	108°8'48.889"E25°9'11.930"N
736	Chuanshan	Hedun	1900	0030	108°8'21.691"E25°8'48.201"N	108°8'9.956"E25°8'39.045"N	108°7'59.131"E25°8'42.025"N	108°8'12.483"E25°8'49.112"N
737	Chuanshan	Hedun	2000	0023	108°8'5.563"E25°7'59.427"N	108°8'2.199"E25°7'53.163"N	108°7'51.258"E25°8'1.474"N	108°7'55.539"E25°8'3.834"N
738	Chuanshan	Hedun	2100	0023	108°7'36.272"E25°6'54.883"N	108°7'35.685"E25°6'52.583"N	108°7'25.540"E25°7'5.484"N	108°7'27.586"E25°7'8.966"N
739	Chuanshan	Tongban	0100	0072	108°3'36.631"E25°1'12.614"N	108°3'28.028"E25°1'11.246"N	108°3'24.995"E25°1'12.503"N	108°3'30.235"E25°1'17.299"N
740	Chuanshan	Tongban	0300	0066	108°4'37.413"E25°0'39.199"N	108°4'28.907"E25°0'37.081"N	108°4'27.787"E25°0'38.145"N	108°4'31.117"E25°0'44.893"N
741	Chuanshan	Tangwan	0300	0041	108°3'3.694"E25°0'39.724"N	108°2'59.761"E25°0'34.737"N	108°2'50.911"E25°0'48.506"N	108°2'54.237"E25°0'53.784"N
742	Chuanshan	Tangwan	0500	0045	108°0'37.703"E25°0'21.440"N	108°0'34.709"E25°0'17.452"N	108°0'24.089"E25°0'23.544"N	108°0'28.608"E25°0'25.971"N
743	Chuanshan	Tangwan	0500	0064	108°0'51.886"E25°0'12.851"N	108°0'42.106"E25°0'7.621"N	108°0'36.706"E25°0'10.767"N	108°0'47.145"E25°0'18.139"N
744	Chuanshan	Linlang	0300	0030	108°4'43.405"E25°1'53.727"N	108°4'41.397"E25°1'48.923"N	108°4'34.484"E25°1'54.825"N	108°4'38.921"E25°1'58.890"N
745	Chuanshan	Linlang	0300	0045	108°4'48.881"E25°1'38.598"N	108°4'35.141"E25°1'31.024"N	108°4'34.473"E25°1'31.877"N	108°4'43.114"E25°1'40.847"N
746	Chuanshan	Youdong	0500	0096	108°3'56.804"E25°3'10.662"N	108°3'54.116"E25°3'5.207"N	108°3'48.272"E25°3'11.512"N	108°3'53.813"E25°3'14.772"N
747	Chuanshan	Baidan	0600	0025	108°2'30.353"E25°5'22.932"N	108°2'28.842"E25°5'21.008"N	108°2'23.851"E25°5'25.481"N	108°2'25.692"E25°5'27.237"N
748	Chuanshan	Baidan	0800	0009	108°1'18.326"E25°5'29.870"N	108°1'11.263"E25°5'22.273"N	108°1'6.473"E25°5'35.674"N	108°1'6.473"E25°5'35.674"N
749	Chuanshan	Shacun	1600	0099	108°3'52.608"E25°7'53.884"N	108°3'45.649"E25°7'50.607"N	108°3'35.836"E25°7'53.810"N	108°3'47.816"E25°8'2.447"N
750	Chuanshan	Shacun	2700	0068	108°5'21.127"E25°7'32.344"N	108°5'17.888"E25°7'24.658"N	108°5'9.406"E25°7'37.756"N	108°5'15.109"E25°7'40.417"N

751	Chuanshan	Chajiang	0100	0001	108°3'40.926"E25°3'25.168"N	108°3'35.812"E25°3'23.175"N	108°3'33.921"E25°3'29.183"N	108°3'37.493"E25°3'32.671"N
752	Chuanshan	Chajiang	0300	0132	108°3'22.781"E25°1'50.744"N	108°3'13.196"E25°1'45.078"N	108°3'6.363"E25°1'52.441"N	108°3'20.975"E25°1'56.019"N
753	Si'en	Anliang	0300	0023	108°17'20.495"E24°52'38.385"N	108°17'14.647"E24°52'30.484"N	108°17'7.023"E24°52'41.147"N	108°17'15.166"E24°52'46.294"N
754	Si'en	Anliang	0400	0061	108°16'21.515"E24°52'19.489"N	108°16'17.203"E24°52'8.087"N	108°16'9.080"E24°52'12.784"N	108°16'18.232"E24°52'25.278"N
755	Si'en	Anliang	0700	0012	108°17'19.438"E24°51'40.488"N	108°17'13.672"E24°51'38.245"N	108°17'6.431"E24°51'47.325"N	108°17'7.389"E24°51'47.774"N
756	Si'en	Qingtian	0100	0038	108°18'18.128"E24°47'27.699"N	108°18'12.235"E24°47'16.903"N	108°18'9.040"E24°47'22.583"N	108°18'17.717"E24°47'27.791"N
757	Si'en	Naihe	0400	0010	108°12'13.642"E24°49'22.436"N	108°12'10.003"E24°49'20.885"N	108°12'7.051"E24°49'24.810"N	108°12'12.405"E24°49'30.307"N
758	Si'en	Xinan	0100	0090	108°11'0.430"E24°51'2.122"N	108°10'57.757"E24°50'54.344"N	108°10'52.822"E24°50'56.783"N	108°10'57.164"E24°51'3.830"N
759	Si'en	Xinan	0200	0056	108°10'47.417"E24°50'56.771"N	108°10'46.467"E24°50'54.954"N	108°10'36.456"E24°51'2.524"N	108°10'40.363"E24°51'6.299"N
760	Si'en	Xinan	0200	0066	108°10'51.583"E24°50'49.900"N	108°10'46.855"E24°50'45.469"N	108°10'45.417"E24°50'48.076"N	108°10'47.613"E24°51'1.604"N
761	Si'en	Xinan	0600	0019	108°11'54.356"E24°50'7.983"N	108°11'51.091"E24°50'3.103"N	108°11'43.313"E24°50'7.853"N	108°11'46.983"E24°50'12.245"N
762	Minglun	Minglun	1200	0019	108°28'3.914"E25°12'10.645"N	108°27'43.857"E25°11'55.124"N	108°27'40.353"E25°11'56.894"N	108°27'51.265"E25°12'13.905"N
763	Minglun	Minglun	2100	0024	108°20'12.307"E25°10'6.120"N	108°20'3.958"E25°9'58.950"N	108°20'0.356"E25°10'3.451"N	108°20'9.073"E25°10'11.318"N
764	Minglun	Minglun	2200	0037	108°20'54.832"E25°10'21.077"N	108°20'52.302"E25°10'20.898"N	108°20'46.176"E25°10'36.002"N	108°20'47.946"E25°10'39.005"N
765	Minglun	Liuping	0500	0026	108°22'45.708"E25°3'53.723"N	108°22'35.338"E25°3'51.894"N	108°22'26.022"E25°3'55.243"N	108°22'37.542"E25°4'0.944"N
766	Minglun	Liuping	0900	0015	108°22'43.212"E25°3'21.899"N	108°22'34.718"E25°3'14.836"N	108°22'30.054"E25°3'17.500"N	108°22'40.526"E25°3'29.182"N
767	Minglun	Liuping	1300	0010	108°22'13.037"E25°2'52.566"N	108°22'9.618"E25°2'48.291"N	108°22'0.522"E25°2'52.016"N	108°22'8.852"E25°2'55.997"N
768	Minglun	Hekuang	0200	0038	108°29'1.217"E25°6'18.881"N	108°28'11.972"E25°5'54.805"N	108°28'10.216"E25°5'56.357"N	108°28'58.916"E25°6'19.610"N
769	Minglun	Hekuang	0500	0042	108°26'9.921"E25°6'12.339"N	108°25'54.799"E25°5'59.193"N	108°25'53.986"E25°5'59.321"N	108°26'3.543"E25°6'17.180"N
770	Minglun	Hekuang	0500	0054	108°26'7.597"E25°5'50.272"N	108°26'5.301"E25°5'47.519"N	108°25'51.290"E25°5'54.167"N	108°25'57.448"E25°5'59.085"N
771	Minglun	Yinghao	0700	0013	108°25'38.269"E25°7'32.762"N	108°25'24.743"E25°7'27.437"N	108°25'20.185"E25°7'37.827"N	108°25'23.563"E25°7'42.638"N
772	Minglun	Haodong	0100	0015	108°21'16.884"E25°9'9.450"N	108°21'0.298"E25°9'5.960"N	108°20'48.356"E25°9'20.023"N	108°20'50.791"E25°9'23.965"N
773	Minglun	Haodong	0500	0012	108°25'8.744"E25°8'28.651"N	108°24'46.431"E25°8'20.326"N	108°24'44.120"E25°8'22.870"N	108°24'53.053"E25°8'32.263"N
774	Minglun	Longshui	1300	0036	108°19'51.389"E25°13'20.016"N	108°19'50.432"E25°13'19.594"N	108°19'36.853"E25°13'26.317"N	108°19'42.408"E25°13'30.360"N
775	Shuiyuan	Zhongjian	0200	0062	108°10'47.343"E24°55'13.386"N	108°10'39.346"E24°55'9.709"N	108°10'37.166"E24°55'13.311"N	108°10'42.010"E24°55'17.993"N
776	Shuiyuan	Zhongjian	0200	0091	108°11'30.924"E24°55'6.296"N	108°11'29.395"E24°55'1.013"N	108°11'16.063"E24°55'2.106"N	108°11'21.215"E24°55'8.693"N
777	Shuiyuan	Zhongjian	0400	0016	108°11'30.876"E24°55'0.158"N	108°11'26.647"E24°54'55.072"N	108°11'16.614"E24°55'2.125"N	108°11'17.179"E24°55'2.196"N

778	Shuiyuan	Zhongjian	0800	0062	108°10'16.674"E24°52'36.535"N	108°10'11.416"E24°52'34.663"N	108°10'8.566"E24°52'38.236"N	108°10'12.612"E24°52'43.883"N
779	Shuiyuan	Zhongjian	0900	0037	108°10'23.207"E24°51'56.063"N	108°10'16.172"E24°51'49.631"N	108°10'10.588"E24°51'52.956"N	108°10'19.570"E24°51'59.833"N
780	Shuiyuan	Zhongjian	1000	0002	108°9'51.516"E24°53'4.762"N	108°9'43.220"E24°52'55.645"N	108°9'40.243"E24°52'59.823"N	108°9'48.892"E24°53'6.459"N
781	Shuiyuan	Zhongjian	1100	0116	108°9'9.131"E24°52'11.810"N	108°9'5.109"E24°52'9.577"N	108°8'54.457"E24°52'15.146"N	108°8'56.652"E24°52'15.420"N
782	Shuiyuan	Zhongjian	1200	0073	108°10'15.830"E24°53'47.110"N	108°10'15.421"E24°53'42.362"N	108°10'7.280"E24°53'55.419"N	108°10'7.627"E24°53'56.559"N
783	Shuiyuan	Zhongjian	1200	0089	108°10'28.796"E24°53'41.076"N	108°10'16.536"E24°53'30.270"N	108°10'14.544"E24°53'31.815"N	108°10'25.690"E24°53'47.136"N
784	Shuiyuan	Heping	0700	0082	108°9'3.646"E24°55'21.133"N	108°9'1.908"E24°55'18.017"N	108°8'47.296"E24°55'22.355"N	108°8'52.829"E24°55'24.517"N
785	Shuiyuan	Shuiyuan	0600	0098	108°9'24.197"E24°53'56.743"N	108°9'18.261"E24°53'50.142"N	108°9'13.893"E24°53'53.511"N	108°9'18.867"E24°53'58.479"N
786	Shuiyuan	Shuiyuan	0600	0099	108°9'8.615"E24°53'54.320"N	108°9'6.023"E24°53'49.467"N	108°9'0.430"E24°53'55.019"N	108°9'3.375"E24°53'58.266"N
787	Shuiyuan	Lila	1100	0007	108°7'0.879"E24°57'4.464"N	108°6'59.569"E24°57'1.971"N	108°6'46.850"E24°57'9.781"N	108°6'49.775"E24°57'10.239"N
788	Luoyang	Guchang	0200	0052	108°15'37.425"E25°2'13.215"N	108°15'28.454"E25°1'57.776"N	108°15'22.343"E25°2'4.213"N	108°15'31.134"E25°2'16.088"N
789	Luoyang	Hezuo	0100	0009	108°16'41.599"E24°59'18.348"N	108°16'31.724"E24°59'12.447"N	108°16'25.968"E24°59'12.981"N	108°16'32.521"E24°59'29.815"N
790	Luoyang	Hezuo	0400	0010	108°15'51.024"E24°58'26.224"N	108°15'34.161"E24°58'7.992"N	108°15'33.951"E24°58'8.398"N	108°15'49.962"E24°58'26.850"N
791	Luoyang	Hezuo	0500	0055	108°15'1.269"E24°57'57.252"N	108°14'49.942"E24°57'53.106"N	108°14'46.028"E24°57'54.560"N	108°14'51.798"E24°58'1.842"N
792	Luoyang	Tuanjie	0500	0065	108°10'5.528"E24°55'12.053"N	108°9'55.229"E24°55'4.838"N	108°9'47.079"E24°55'9.209"N	108°9'50.820"E24°55'21.973"N
793	Luoyang	Dimeng	0500	0056	108°13'29.801"E25°5'30.519"N	108°13'23.763"E25°5'22.462"N	108°13'15.047"E25°5'29.531"N	108°13'22.605"E25°5'32.811"N
794	Luoyang	Miaoshi	0200	0031	108°8'54.479"E25°1'16.965"N	108°8'52.379"E25°1'16.604"N	108°8'41.787"E25°1'23.957"N	108°8'42.759"E25°1'28.190"N
795	Luoyang	Miaoshi	0600	0020	108°8'45.037"E25°0'40.482"N	108°8'40.828"E25°0'31.104"N	108°8'27.002"E25°0'38.206"N	108°8'36.320"E25°0'43.033"N
796	Luoyang	Miaoshi	0600	0027	108°8'6.946"E25°0'24.748"N	108°7'51.995"E25°0'19.092"N	108°7'48.537"E25°0'26.147"N	108°7'56.700"E25°0'29.282"N
797	Luoyang	Miaoshi	0800	0077	108°10'36.246"E25°0'5.764"N	108°9'39.554"E24°59'46.172"N	108°9'39.554"E24°59'46.172"N	108°10'20.990"E25°0'10.568"N
798	Luoyang	Miaoshi	1200	0004	108°7'43.515"E25°0'6.141"N	108°7'42.531"E25°0'4.725"N	108°7'25.145"E25°0'11.819"N	108°7'31.836"E25°0'16.865"N
799	Luoyang	Miaoshi	1500	0001	108°9'45.932"E24°58'56.274"N	108°9'42.449"E24°58'40.406"N	108°9'34.292"E24°58'49.859"N	108°9'45.313"E24°58'57.067"N
800	Luoyang	Miaoshi	1500	0071	108°9'51.296"E24°58'14.702"N	108°9'32.623"E24°57'52.001"N	108°9'24.138"E24°57'56.298"N	108°9'48.593"E24°58'16.165"N
801	Luoyang	Wenya	0100	0046	108°14'26.519"E25°16'37.246"N	108°14'19.827"E25°16'30.133"N	108°14'17.591"E25°16'36.585"N	108°14'23.848"E25°16'38.894"N
802	Luoyang	Wenya	0100	0123	108°14'50.272"E25°16'13.428"N	108°14'44.163"E25°16'10.629"N	108°14'43.298"E25°16'13.124"N	108°14'44.014"E25°16'17.707"N
803	Luoyang	Pule	0500	0069	108°10'50.646"E25°0'11.970"N	108°10'40.112"E25°0'1.271"N	108°10'39.611"E25°0'3.738"N	108°10'47.807"E25°0'16.023"N
804	Luoyang	Yong'an	0200	0019	108°11'48.710"E25°10'4.803"N	108°11'44.573"E25°10'2.769"N	108°11'29.536"E25°10'6.399"N	108°11'44.969"E25°10'22.325"N

805	Luoyang	Yong'an	0600	0003	108°12'25.808"E25°9'19.172"N	108°12'23.755"E25°9'10.932"N	108°12'16.703"E25°9'20.786"N	108°12'16.703"E25°9'20.786"N
806	Luoyang	Yong'an	0700	0011	108°11'39.688"E25°9'7.369"N	108°11'33.536"E25°9'2.069"N	108°11'25.602"E25°9'17.952"N	108°11'25.730"E25°9'18.184"N
807	Luoyang	Yong'an	0700	0013	108°11'45.401"E25°9'11.473"N	108°11'35.431"E25°9'5.901"N	108°11'32.531"E25°9'8.760"N	108°11'35.643"E25°9'15.307"N
808	Luoyang	Yong'an	0900	0044	108°11'12.247"E25°7'45.232"N	108°11'8.962"E25°7'40.956"N	108°10'57.632"E25°7'48.445"N	108°11'3.056"E25°7'55.359"N
809	Luoyang	Yongquan	0900	0031	108°16'18.601"E25°9'5.641"N	108°16'14.485"E25°8'58.052"N	108°16'9.714"E25°9'5.014"N	108°16'16.480"E25°9'7.816"N
810	Luoyang	Yongquan	1400	0025	108°16'13.534"E25°8'17.038"N	108°16'12.923"E25°8'13.257"N	108°15'52.764"E25°8'33.521"N	108°15'55.399"E25°8'34.675"N
811	Luoyang	Yongquan	1400	0039	108°15'52.604"E25°7'55.352"N	108°15'41.557"E25°7'51.759"N	108°15'40.222"E25°7'53.587"N	108°15'49.732"E25°7'59.850"N
812	Luoyang	Yongquan	1800	0007	108°14'15.847"E25°6'53.906"N	108°14'7.560"E25°6'49.853"N	108°14'6.170"E25°6'50.062"N	108°14'11.227"E25°7'5.623"N
813	Luoyang	Yongquan	1800	0039	108°14'34.539"E25°6'39.622"N	108°14'34.539"E25°6'39.622"N	108°14'24.744"E25°6'44.378"N	108°14'28.643"E25°6'46.910"N
814	Luoyang	Yongquan	2000	0016	108°17'5.192"E25°9'12.109"N	108°16'35.425"E25°9'5.846"N	108°16'35.111"E25°9'7.028"N	108°16'38.151"E25°9'20.755"N
815	Luoyang	Yongquan	2100	0061	108°18'5.265"E25°8'51.669"N	108°18'4.376"E25°8'51.200"N	108°17'50.039"E25°8'59.541"N	108°17'56.304"E25°9'0.955"N
816	Luoyang	Yongquan	2400	0006	108°19'7.734"E25°9'0.355"N	108°19'0.994"E25°8'43.588"N	108°18'52.225"E25°9'4.805"N	108°18'56.908"E25°9'14.641"N
817	Luoyang	Yongquan	2800	0133	108°18'46.692"E25°4'17.688"N	108°18'45.006"E25°4'15.010"N	108°18'40.898"E25°4'19.678"N	108°18'45.972"E25°4'28.454"N
818	Luoyang	Yongquan	3300	0136	108°17'51.390"E25°0'0.181"N	108°17'37.618"E24°59'52.824"N	108°17'34.631"E25°0'0.187"N	108°17'49.730"E25°0'1.210"N
819	Luoyang	Jiangkou	0200	0025	108°14'35.087"E25°2'44.093"N	108°14'33.076"E25°2'38.903"N	108°14'28.428"E25°2'45.412"N	108°14'32.166"E25°2'49.792"N
820	Luoyang	Jiangkou	0400	0039	108°13'37.465"E25°1'58.585"N	108°13'35.028"E25°1'52.400"N	108°13'26.659"E25°2'5.090"N	108°13'27.142"E25°2'7.060"N
821	Luoyang	Jiangkou	0400	0074	108°13'55.031"E25°1'51.699"N	108°13'47.782"E25°1'44.400"N	108°13'42.118"E25°1'48.858"N	108°13'50.778"E25°1'55.649"N
822	Luoyang	Yuhe	0400	0025	108°16'15.915"E25°4'14.963"N	108°16'10.867"E25°4'6.802"N	108°16'2.300"E25°4'20.374"N	108°16'3.179"E25°4'22.697"N
823	Luoyang	Yuhe	0500	0012	108°16'25.208"E25°3'47.146"N	108°16'21.925"E25°3'40.535"N	108°16'11.248"E25°3'48.160"N	108°16'20.630"E25°4'2.254"N
824	Changmei	Neidian	0900	0005	108°25'16.457"E24°53'30.334"N	108°25'13.629"E24°53'26.278"N	108°25'4.477"E24°53'33.653"N	108°25'7.112"E24°53'36.277"N
825	Changmei	Neidian	1000	0012	108°25'46.540"E24°52'51.320"N	108°25'46.237"E24°52'50.635"N	108°25'28.042"E24°53'7.119"N	108°25'28.986"E24°53'8.524"N
826	Changmei	Neidian	1100	0031	108°26'41.310"E24°51'57.651"N	108°26'33.215"E24°51'45.954"N	108°26'28.538"E24°51'55.556"N	108°26'34.334"E24°51'59.525"N
827	Changmei	Neitong	0600	0043	108°31'33.466"E25°1'5.546"N	108°31'31.869"E25°0'58.791"N	108°31'26.571"E25°1'7.492"N	108°31'30.923"E25°1'12.844"N
828	Changmei	Neitong	0900	0014	108°33'29.551"E25°0'26.619"N	108°33'27.400"E25°0'24.710"N	108°33'18.031"E25°0'29.865"N	108°33'19.734"E25°0'32.793"N
829	Changmei	Neitong	1300	0014	108°35'46.481"E25°0'21.130"N	108°35'42.120"E25°0'15.836"N	108°35'32.763"E25°0'27.963"N	108°35'35.396"E25°0'32.702"N
830	Changmei	Neitong	2000	0028	108°27'9.969"E25°0'24.738"N	108°27'9.518"E25°0'24.062"N	108°26'58.269"E25°0'30.382"N	108°27'2.847"E25°0'33.446"N
831	Changmei	Neitong	2400	0017	108°30'30.353"E25°0'14.264"N	108°30'21.933"E25°0'6.532"N	108°30'15.462"E25°0'14.136"N	108°30'25.243"E25°0'15.978"N

832	Changmei	Changmei	0200	0011	108°26'19.431"E24°58'1.598"N	108°26'8.232"E24°57'47.191"N	108°25'58.170"E24°57'50.242"N	108°26'18.313"E24°58'4.456"N
833	Changmei	Changmei	0200	0018	108°26'51.914"E24°57'50.537"N	108°26'50.065"E24°57'47.138"N	108°26'41.085"E24°57'56.683"N	108°26'44.168"E24°57'58.018"N
834	Xunle	Quan'an	0300	0023	108°19'19.406"E25°23'58.184"N	108°19'2.810"E25°23'48.457"N	108°19'1.690"E25°23'49.027"N	108°19'15.803"E25°23'59.547"N
835	Xunle	Quan'an	1300	0031	108°16'50.316"E25°21'42.608"N	108°16'27.260"E25°21'30.390"N	108°16'22.226"E25°21'38.008"N	108°16'35.622"E25°21'44.148"N
836	Xunle	Quan'an	1300	0070	108°16'38.005"E25°21'14.055"N	108°16'30.486"E25°21'12.603"N	108°16'27.530"E25°21'15.493"N	108°16'34.454"E25°21'21.115"N
837	Xunle	Quan'an	1500	0131	108°19'58.184"E25°20'46.633"N	108°19'39.084"E25°20'38.067"N	108°19'35.427"E25°20'44.671"N	108°19'35.626"E25°20'51.118"N
838	Xunle	Quan'an	2100	0030	108°17'55.632"E25°20'47.343"N	108°17'43.624"E25°20'35.390"N	108°17'33.639"E25°20'54.640"N	108°17'45.728"E25°21'3.599"N
839	Xunle	Quan'an	2100	0038	108°17'40.722"E25°20'49.847"N	108°17'27.804"E25°20'40.922"N	108°17'26.232"E25°20'42.318"N	108°17'37.435"E25°20'53.280"N
840	Xunle	Shangang	0100	0043	108°18'21.585"E25°31'31.997"N	108°18'19.397"E25°31'24.027"N	108°18'14.647"E25°31'26.393"N	108°18'19.982"E25°31'35.071"N
841	Xunle	Shangang	0100	0067	108°19'9.024"E25°31'15.951"N	108°19'8.943"E25°31'15.513"N	108°19'1.233"E25°31'24.629"N	108°19'5.293"E25°31'27.319"N
842	Xunle	Shangang	1500	0099	108°19'3.016"E25°29'33.059"N	108°18'55.800"E25°29'30.471"N	108°18'54.208"E25°29'33.310"N	108°19'0.473"E25°29'38.025"N
843	Xunle	Shangang	1600	0064	108°18'34.601"E25°30'50.281"N	108°18'14.978"E25°30'39.705"N	108°18'14.978"E25°30'39.705"N	108°18'34.601"E25°30'50.281"N
844	Xunle	Shangang	1800	0108	108°18'30.815"E25°29'16.139"N	108°18'25.426"E25°29'15.490"N	108°18'14.291"E25°29'18.801"N	108°18'16.456"E25°29'20.912"N
845	Xunle	Shangang	3000	0007	108°24'8.649"E25°28'2.302"N	108°23'55.251"E25°27'59.049"N	108°23'51.990"E25°28'1.236"N	108°23'55.149"E25°28'5.239"N
846	Xunle	Shangang	3200	0004	108°23'15.959"E25°27'54.724"N	108°23'2.726"E25°27'51.337"N	108°23'2.331"E25°27'52.283"N	108°23'10.623"E25°27'57.582"N
847	Xunle	Pingmo	1100	0002	108°17'37.195"E25°18'37.822"N	108°17'32.866"E25°18'28.900"N	108°17'22.374"E25°18'49.524"N	108°17'23.284"E25°18'50.176"N
848	Xunle	Pingmo	1400	0066	108°17'17.728"E25°16'36.212"N	108°17'10.358"E25°16'23.071"N	108°17'5.633"E25°16'33.142"N	108°17'7.545"E25°16'38.348"N
849	Xunle	Pingzhi	0100	0012	108°8'25.621"E25°23'34.478"N	108°8'23.622"E25°23'24.748"N	108°8'15.078"E25°23'28.387"N	108°8'22.330"E25°23'36.570"N
850	Xunle	Pingzhi	0900	0001	108°11'55.877"E25°21'31.762"N	108°11'44.634"E25°21'21.079"N	108°11'43.736"E25°21'26.653"N	108°11'53.158"E25°21'35.929"N
851	Xunle	Pingzhi	0900	0025	108°12'39.352"E25°21'24.402"N	108°12'15.444"E25°21'14.107"N	108°12'9.483"E25°21'15.189"N	108°12'28.031"E25°21'26.121"N
852	Xunle	Pingzhi	1600	0013	108°11'35.961"E25°19'55.235"N	108°11'24.461"E25°19'51.037"N	108°11'12.705"E25°19'57.089"N	108°11'30.505"E25°19'59.914"N
853	Xunle	Pingzhi	1600	0023	108°11'51.091"E25°19'46.674"N	108°11'46.070"E25°19'41.520"N	108°11'36.369"E25°19'51.066"N	108°11'41.367"E25°19'55.271"N
854	Xunle	Pingzhi	2300	0018	108°13'45.215"E25°17'25.555"N	108°13'41.479"E25°17'19.655"N	108°13'35.969"E25°17'25.096"N	108°13'41.273"E25°17'29.129"N
855	Xunle	Fushou	0600	0074	108°17'29.690"E25°23'34.264"N	108°17'5.424"E25°23'19.674"N	108°17'0.800"E25°23'24.610"N	108°17'18.584"E25°23'41.956"N
856	Xunle	Zhenbei	0100	0076	108°16'27.651"E25°28'5.429"N	108°16'25.751"E25°27'57.316"N	108°16'18.935"E25°28'10.594"N	108°16'18.935"E25°28'10.594"N
857	Xunle	Changbei	0200	0054	108°18'28.309"E25°27'29.308"N	108°18'19.556"E25°27'26.599"N	108°18'10.327"E25°27'32.162"N	108°18'19.401"E25°27'40.155"N
858	Xunle	Changbei	0300	0030	108°17'42.368"E25°27'16.065"N	108°17'33.286"E25°27'6.485"N	108°17'27.440"E25°27'18.665"N	108°17'36.397"E25°27'24.630"N

859	Xunle	Changbei	1700	0015	108°18'36.017"E25°25'50.041"N	108°18'36.017"E25°25'50.041"N	108°18'24.574"E25°25'56.332"N	108°18'26.018"E25°25'58.529"N
860	Xunle	Changbei	1700	0075	108°18'29.291"E25°25'23.196"N	108°18'15.548"E25°25'19.038"N	108°18'12.463"E25°25'21.834"N	108°18'23.824"E25°25'31.661"N
861	Xunle	Shunning	0400	0071	108°12'16.049"E25°24'2.595"N	108°12'13.667"E25°24'1.747"N	108°12'4.262"E25°24'6.581"N	108°12'7.217"E25°24'14.771"N
862	Longyan	Jiule	1100	0057	108°28'17.912"E25°17'18.217"N	108°27'53.632"E25°17'1.504"N	108°27'51.812"E25°17'7.745"N	108°28'17.354"E25°17'19.145"N
863	Longyan	Chenghuang	0200	0002	108°22'15.916"E25°24'16.625"N	108°22'11.705"E25°24'11.335"N	108°22'3.967"E25°24'22.619"N	108°22'11.389"E25°24'30.209"N
864	Longyan	Anshan	0400	0023	108°31'9.031"E25°16'12.001"N	108°30'59.646"E25°16'4.239"N	108°30'53.066"E25°16'11.399"N	108°30'57.530"E25°16'17.514"N
865	Longyan	Guangrong	0300	0039	108°27'0.795"E25°22'26.608"N	108°26'57.201"E25°22'23.290"N	108°26'42.333"E25°22'36.507"N	108°26'42.333"E25°22'36.507"N
866	Longyan	Guangrong	0700	0012	108°29'56.701"E25°21'33.428"N	108°29'40.484"E25°21'18.129"N	108°29'28.250"E25°21'26.308"N	108°29'42.235"E25°21'38.004"N
867	Longyan	Guangrong	0800	0039	108°28'12.221"E25°21'35.555"N	108°28'6.194"E25°21'30.588"N	108°28'2.849"E25°21'33.304"N	108°28'5.824"E25°21'39.641"N
868	Longyan	Ganyan	0300	0002	108°31'2.484"E25°24'35.415"N	108°30'53.742"E25°24'28.117"N	108°30'52.350"E25°24'30.773"N	108°31'0.333"E25°24'40.191"N
869	Longyan	Ganyan	1200	0103	108°30'0.729"E25°22'30.274"N	108°29'47.857"E25°22'26.988"N	108°29'40.191"E25°22'27.766"N	108°29'55.363"E25°22'32.077"N
870	Longyan	Chaoge	0400	0002	108°32'39.955"E25°23'52.148"N	108°32'34.312"E25°23'42.801"N	108°32'29.871"E25°23'48.567"N	108°32'35.192"E25°24'2.444"N
871	Longyan	Chaoge	0400	0041	108°31'59.837"E25°23'34.014"N	108°31'46.896"E25°23'30.670"N	108°31'34.139"E25°23'36.764"N	108°31'55.487"E25°23'39.729"N
872	Longyan	Chaoge	0900	0008	108°32'23.603"E25°22'43.781"N	108°32'11.256"E25°22'35.222"N	108°32'5.772"E25°22'39.835"N	108°32'16.988"E25°22'50.348"N
873	Longyan	Chaoge	1000	0063	108°33'46.044"E25°22'3.803"N	108°33'41.699"E25°21'59.063"N	108°33'39.146"E25°21'59.571"N	108°33'43.620"E25°22'8.951"N
874	Longyan	Chaoge	1500	0077	108°30'51.270"E25°20'47.012"N	108°30'51.270"E25°20'47.012"N	108°30'42.123"E25°20'50.659"N	108°30'45.249"E25°20'57.686"N
875	Longyan	Chaoge	1800	0008	108°33'22.640"E25°21'28.259"N	108°33'13.223"E25°21'26.426"N	108°33'12.310"E25°21'37.242"N	108°33'18.528"E25°21'38.395"N
876	Longyan	Chaoge	2300	0007	108°33'52.582"E25°20'40.436"N	108°33'48.479"E25°20'33.712"N	108°33'41.291"E25°20'35.182"N	108°33'49.466"E25°20'47.395"N
877	Longyan	Chaoge	2500	0074	108°32'3.236"E25°20'29.347"N	108°31'57.035"E25°20'27.072"N	108°31'47.826"E25°20'31.488"N	108°31'54.084"E25°20'38.705"N
878	Longyan	Chaoge	2700	0055	108°32'3.971"E25°20'9.460"N	108°31'55.267"E25°19'47.155"N	108°31'44.218"E25°19'55.929"N	108°31'57.167"E25°20'13.536"N
879	Longyan	Kenlan	0100	0004	108°30'34.157"E25°21'5.187"N	108°30'29.340"E25°20'59.035"N	108°30'19.544"E25°21'12.358"N	108°30'19.991"E25°21'12.846"N
880	Longyan	Kenlan	0100	0012	108°30'30.284"E25°20'52.998"N	108°30'25.661"E25°20'47.490"N	108°30'15.192"E25°21'4.200"N	108°30'16.158"E25°21'4.723"N
881	Longyan	Kenlan	0100	0022	108°30'21.164"E25°20'48.947"N	108°30'20.251"E25°20'48.773"N	108°30'2.630"E25°20'58.811"N	108°30'4.182"E25°20'59.798"N
882	Longyan	Kenlan	0200	0173	108°30'50.171"E25°19'30.184"N	108°30'49.953"E25°19'30.047"N	108°30'40.571"E25°19'32.926"N	108°30'43.231"E25°19'38.546"N
883	Longyan	Kenlan	0500	0067	108°30'58.141"E25°18'38.530"N	108°30'57.575"E25°18'37.611"N	108°30'45.118"E25°18'42.111"N	108°30'51.354"E25°18'47.784"N
884	Longyan	Kenlan	0600	0008	108°31'30.087"E25°18'54.907"N	108°31'15.926"E25°18'32.041"N	108°31'12.493"E25°18'43.810"N	108°31'28.798"E25°19'0.954"N
885	Longyan	Liangxing	0700	0020	108°30'0.927"E25°18'44.476"N	108°29'50.935"E25°18'40.149"N	108°29'47.964"E25°18'44.854"N	108°29'58.022"E25°18'48.872"N

886	Longyan	Dadong	0700	0075	108°30'5.558"E25°24'54.527"N	108°29'59.535"E25°24'49.266"N	108°29'54.863"E25°24'53.546"N	108°29'58.584"E25°24'58.653"N
887	Longyan	Dake	0100	0048	108°35'1.078"E25°19'17.911"N	108°34'47.166"E25°19'11.387"N	108°34'47.120"E25°19'11.402"N	108°34'52.511"E25°19'22.031"N
888	Longyan	Dake	1000	0016	108°34'51.819"E25°18'8.404"N	108°34'29.380"E25°17'49.435"N	108°34'29.380"E25°17'49.435"N	108°34'40.240"E25°18'19.583"N
889	Longyan	Dake	1500	0126	108°33'2.671"E25°16'52.833"N	108°32'59.297"E25°16'48.472"N	108°32'55.871"E25°17'0.316"N	108°32'56.042"E25°17'1.116"N
890	Longyan	Dake	1700	0068	108°31'40.300"E25°18'0.299"N	108°31'30.141"E25°17'45.414"N	108°31'22.631"E25°17'48.944"N	108°31'39.138"E25°18'1.032"N
891	Longyan	Longyan	0900	0061	108°28'23.160"E25°15'50.661"N	108°28'21.631"E25°15'43.992"N	108°28'12.976"E25°15'57.351"N	108°28'19.442"E25°16'2.957"N
892	Si'en	Zhongshan	0700	0028	108°15'42.146"E24°54'2.170"N	108°15'36.268"E24°53'47.587"N	108°15'30.962"E24°53'54.975"N	108°15'39.406"E24°54'3.761"N
893	Si'en	Zhongshan	0800	0001	108°15'36.268"E24°53'47.587"N	108°15'26.838"E24°53'41.284"N	108°15'23.661"E24°53'44.686"N	108°15'31.078"E24°53'54.320"N
894	Si'en	Zhongshan	0800	0042	108°15'22.950"E24°53'3.505"N	108°15'18.740"E24°53'0.348"N	108°15'15.454"E24°53'14.035"N	108°15'17.092"E24°53'15.666"N
895	Xia'nan	Yifeng	0300	0029	108°4'28.552"E24°58'2.015"N	108°4'11.805"E24°57'57.791"N	108°4'9.460"E24°58'2.644"N	108°4'9.802"E24°58'6.272"N
896	Chuanshan	Wuwei	0700	0013	108°10'26.491"E25°7'9.388"N	108°10'12.099"E25°7'0.842"N	108°10'6.680"E25°7'3.554"N	108°10'20.293"E25°7'12.169"N
897	Chuanshan	Gubin	0500	0027	108°9'45.710"E25°4'32.371"N	108°9'45.094"E25°4'31.279"N	108°9'37.293"E25°4'40.340"N	108°9'40.000"E25°4'41.365"N
898	Minglun	Hekuang	0700	0023	108°27'56.846"E25°5'53.790"N	108°27'39.077"E25°5'36.780"N	108°27'26.613"E25°5'45.409"N	108°27'46.256"E25°5'55.955"N
899	Minglun	Yinghao	0600	0064	108°27'15.078"E25°7'1.398"N	108°27'5.741"E25°6'55.614"N	108°27'4.021"E25°6'57.508"N	108°27'14.164"E25°7'5.193"N
900	Minglun	Yajing	0100	0001	108°21'56.744"E25°17'3.986"N	108°21'46.909"E25°16'53.188"N	108°21'29.713"E25°16'54.981"N	108°21'41.316"E25°17'9.722"N
901	Minglun	Longshui	0100	0034	108°21'31.388"E25°15'29.053"N	108°21'19.621"E25°15'23.317"N	108°21'16.829"E25°15'27.751"N	108°21'24.958"E25°15'33.606"N
902	Minglun	Longshui	1700	0035	108°21'36.319"E25°12'19.315"N	108°21'30.372"E25°12'7.292"N	108°21'24.133"E25°12'12.429"N	108°21'33.597"E25°12'25.870"N
903	Shuiyuan	Lila	0300	0068	108°7'51.500"E24°57'18.876"N	108°7'47.364"E24°57'16.710"N	108°7'34.534"E24°57'22.137"N	108°7'38.342"E24°57'26.399"N
904	Shuiyuan	Lila	0400	0021	108°6'48.122"E24°57'21.765"N	108°6'45.365"E24°57'18.345"N	108°6'29.905"E24°57'28.509"N	108°6'33.909"E24°57'31.752"N
905	Changmei	Bafu	0300	0005	108°26'59.785"E24°54'30.532"N	108°26'45.021"E24°54'23.804"N	108°26'44.749"E24°54'24.286"N	108°26'51.115"E24°54'32.455"N
906	Changmei	Bafu	0300	0008	108°26'48.993"E24°54'25.071"N	108°26'40.579"E24°54'16.079"N	108°26'28.161"E24°54'23.492"N	108°26'32.727"E24°54'26.426"N
907	Changmei	Neidian	0300	0053	108°24'58.850"E24°54'51.724"N	108°24'50.733"E24°54'47.920"N	108°24'47.328"E24°54'49.692"N	108°24'53.578"E24°54'54.638"N
908	Changmei	Neidian	0500	0026	108°25'37.851"E24°54'11.706"N	108°25'28.277"E24°54'4.376"N	108°25'16.391"E24°54'8.654"N	108°25'32.492"E24°54'12.474"N
909	Changmei	Changmei	2800	0017	108°26'27.250"E24°55'37.094"N	108°26'24.841"E24°55'32.119"N	108°26'19.206"E24°55'39.091"N	108°26'25.427"E24°55'47.038"N
910	Xia'nan	Zhongnan	1300	0016	107°59'37.827"E24°55'2.721"N	107°59'18.467"E24°54'49.569"N	107°59'12.700"E24°54'56.800"N	107°59'19.650"E24°55'5.446"N
911	Xia'nan	Yifeng	0300	0028	108°4'28.703"E24°58'7.260"N	108°4'25.965"E24°58'2.986"N	108°4'16.884"E24°58'8.124"N	108°4'24.406"E24°58'10.433"N
912	Xia'nan	Yifeng	0300	0033	108°4'31.393"E24°57'49.484"N	108°4'27.996"E24°57'46.326"N	108°4'22.908"E24°57'56.023"N	108°4'26.540"E24°57'57.655"N

913	Xia'n'an	Tangba	0300	0003	108°0'35.320"E24°55'26.308"N	108°0'32.843"E24°55'14.025"N	108°0'27.207"E24°55'30.336"N	108°0'28.844"E24°55'30.792"N
914	Huashan Forest Farm	Huanshan Branch Farm	1100	0022	108°16'15.887"E25°6'59.894"N	108°16'11.617"E25°6'40.622"N	108°16'11.440"E25°6'40.703"N	108°16'15.293"E25°7'0.097"N
915	Da'an	Tangfang	0400	0050	108°16'42.590"E24°57'7.085"N	108°16'34.389"E24°56'58.110"N	108°16'26.886"E24°57'1.370"N	108°16'40.157"E24°57'7.919"N
916	Da'an	Caiping	0600	0123	108°19'52.911"E24°57'40.153"N	108°19'51.010"E24°57'38.284"N	108°19'44.302"E24°57'44.018"N	108°19'46.233"E24°57'46.621"N
917	Da'an	Caiping	0800	0030	108°19'45.504"E24°57'8.244"N	108°19'42.426"E24°57'0.722"N	108°19'36.963"E24°57'6.835"N	108°19'38.390"E24°57'9.416"N
918	Da'an	Caiping	0800	0074	108°19'13.546"E24°56'38.142"N	108°19'10.280"E24°56'33.640"N	108°19'0.430"E24°56'36.402"N	108°19'5.006"E24°56'42.821"N
919	Da'an	Caiping	2300	0031	108°20'18.906"E24°54'47.728"N	108°20'8.414"E24°54'40.192"N	108°20'6.588"E24°54'41.472"N	108°20'16.205"E24°54'49.721"N
920	Da'an	Huanjie	0300	0034	108°18'41.452"E25°0'43.713"N	108°18'33.001"E25°0'40.821"N	108°18'32.640"E25°0'40.980"N	108°18'34.859"E25°0'46.611"N
921	Da'an	Huanjie	1000	0006	108°18'25.452"E24°59'50.325"N	108°18'18.481"E24°59'47.244"N	108°18'16.861"E24°59'50.358"N	108°18'21.756"E24°59'58.957"N
922	Da'an	Jinqiao	1700	0079	108°20'38.343"E25°0'16.379"N	108°20'36.111"E25°0'14.353"N	108°20'21.179"E25°0'16.920"N	108°20'25.893"E25°0'19.416"N
923	Da'an	Jinqiao	2100	0007	108°24'30.008"E25°1'13.209"N	108°24'20.977"E25°1'8.507"N	108°24'19.081"E25°1'14.782"N	108°24'23.585"E25°1'18.680"N
924	Tiancai	Chonglou	0700	0008	108°19'6.239"E24°49'36.674"N	108°19'5.738"E24°49'30.412"N	108°19'0.493"E24°49'31.227"N	108°19'4.544"E24°49'41.626"N
925	Si'en	Anliang	0500	0070	108°16'42.050"E24°51'44.157"N	108°16'40.352"E24°51'43.323"N	108°16'32.506"E24°51'49.500"N	108°16'33.447"E24°51'50.339"N
926	Shuiyuan	Heping	0100	0058	108°8'53.757"E24°57'36.754"N	108°8'48.582"E24°57'33.452"N	108°8'43.320"E24°57'37.065"N	108°8'46.975"E24°57'43.583"N
927	Changmei	Guan'an	0300	0141	108°25'4.351"E24°57'20.306"N	108°24'55.986"E24°57'15.426"N	108°24'50.056"E24°57'18.823"N	108°24'54.257"E24°57'23.329"N
928	Changmei	Changmei	0200	0034	108°26'42.965"E24°57'34.949"N	108°26'42.197"E24°57'33.267"N	108°26'35.540"E24°57'48.549"N	108°26'37.562"E24°57'49.365"N
929	Longyan	Jiule	1200	0056	108°27'32.507"E25°16'55.826"N	108°27'17.312"E25°16'49.632"N	108°27'16.553"E25°16'51.756"N	108°27'31.213"E25°16'57.380"N
930	Longyan	Jiuwei	0100	0025	108°22'14.834"E25°20'45.498"N	108°22'5.390"E25°20'43.803"N	108°22'4.432"E25°20'44.539"N	108°22'10.812"E25°20'48.540"N
931	Longyan	Jiuwei	1000	0031	108°23'44.888"E25°20'17.615"N	108°23'39.132"E25°20'7.065"N	108°23'39.004"E25°20'7.693"N	108°23'44.657"E25°20'17.808"N
932	Longyan	Jiuwei	1000	0099	108°24'0.171"E25°19'47.437"N	108°23'46.498"E25°19'42.445"N	108°23'46.276"E25°19'43.690"N	108°23'58.763"E25°19'48.354"N
933	Longyan	Anshan	0100	0077	108°32'21.521"E25°15'24.303"N	108°31'53.943"E25°15'12.711"N	108°31'53.815"E25°15'13.627"N	108°32'20.241"E25°15'25.486"N
934	Longyan	Anshan	0400	0120	108°31'23.668"E25°15'53.895"N	108°30'57.909"E25°15'40.858"N	108°30'56.826"E25°15'42.717"N	108°31'23.329"E25°15'54.090"N
935	Longyan	Anshan	0600	0011	108°31'29.329"E25°15'39.890"N	108°31'26.793"E25°15'35.484"N	108°31'16.728"E25°15'38.095"N	108°31'24.444"E25°15'45.286"N
936	Longyan	Anshan	1600	0034	108°29'36.683"E25°12'53.632"N	108°29'26.308"E25°12'50.312"N	108°29'25.696"E25°12'51.219"N	108°29'27.294"E25°12'59.746"N
937	Longyan	Dadong	0500	0085	108°29'32.960"E25°26'22.564"N	108°29'30.236"E25°26'20.248"N	108°29'24.270"E25°26'24.749"N	108°29'28.477"E25°26'27.825"N
938	Longyan	Huangzhong	0500	0016	108°22'40.762"E25°26'42.834"N	108°22'37.636"E25°26'34.665"N	108°22'36.297"E25°26'41.794"N	108°22'39.593"E25°26'42.891"N
939	Longyan	Huangzhong	0500	0056	108°22'40.821"E25°26'27.168"N	108°22'31.076"E25°26'25.086"N	108°22'27.225"E25°26'27.677"N	108°22'36.602"E25°26'33.434"N

940	Longyan	Huangzhong	0600	0095	108°25'6.397"E25°25'53.253"N	108°24'55.258"E25°25'45.900"N	108°24'50.637"E25°25'52.333"N	108°25'0.606"E25°25'56.511"N
941	Longyan	Huangzhong	0600	0115	108°24'54.947"E25°25'45.100"N	108°24'42.363"E25°25'43.115"N	108°24'39.932"E25°25'46.880"N	108°24'42.139"E25°25'52.031"N
942	Longyan	Huangzhong	0800	0003	108°26'55.740"E25°26'32.323"N	108°26'41.598"E25°26'28.886"N	108°26'35.636"E25°26'30.939"N	108°26'55.740"E25°26'32.323"N
943	Longyan	Huangzhong	1000	0026	108°27'28.011"E25°26'15.133"N	108°27'18.148"E25°25'58.552"N	108°27'16.624"E25°26'5.792"N	108°27'22.610"E25°26'19.066"N
944	Longyan	Huangzhong	1300	0149	108°26'10.155"E25°24'40.683"N	108°25'55.078"E25°24'34.335"N	108°25'52.170"E25°24'38.252"N	108°26'3.698"E25°24'52.097"N
945	Longyan	Huangzhong	1400	0067	108°25'55.243"E25°25'34.103"N	108°25'49.058"E25°25'27.942"N	108°25'47.023"E25°25'32.262"N	108°25'52.397"E25°25'36.498"N
946	Longyan	Huangzhong	1700	0042	108°24'50.821"E25°24'38.748"N	108°24'44.389"E25°24'32.033"N	108°24'34.691"E25°24'38.979"N	108°24'40.866"E25°24'41.826"N
947	Longyan	Huangzhong	1700	0193	108°25'24.824"E25°24'4.657"N	108°25'19.383"E25°24'2.167"N	108°25'8.485"E25°24'4.714"N	108°25'14.273"E25°24'7.424"N
948	Longyan	Huangzhong	1800	0057	108°25'56.008"E25°23'47.565"N	108°25'54.246"E25°23'43.068"N	108°25'48.748"E25°23'47.919"N	108°25'51.575"E25°23'50.590"N
949	Longyan	Huangzhong	1900	0007	108°27'31.799"E25°24'59.263"N	108°27'25.598"E25°24'47.099"N	108°27'15.717"E25°24'52.658"N	108°27'31.119"E25°24'59.746"N
950	Longyan	Huangzhong	2100	0017	108°26'41.169"E25°23'49.345"N	108°26'34.322"E25°23'46.485"N	108°26'20.164"E25°23'49.099"N	108°26'29.558"E25°23'54.693"N
951	Xia'nan	Zhongnan	0400	0008	108°1'13.889"E24°57'15.805"N	108°0'58.102"E24°57'13.077"N	108°0'54.028"E24°57'18.536"N	108°0'57.908"E24°57'21.908"N
952	Xia'nan	Tangba	0100	0009	107°59'41.578"E24°54'41.015"N	107°59'25.521"E24°54'35.755"N	107°59'23.981"E24°54'36.385"N	107°59'37.684"E24°54'42.422"N
953	Dongxing	Dongxing	0500	0028	108°33'11.051"E25°10'2.512"N	108°33'10.153"E25°9'54.721"N	108°32'55.871"E25°9'57.825"N	108°33'7.926"E25°10'10.878"N
954	Dongxing	Dongxing	0800	0029	108°34'6.650"E25°8'56.205"N	108°33'33.797"E25°8'53.279"N	108°33'30.742"E25°8'53.371"N	108°33'41.225"E25°9'7.428"N
955	Dongxing	Dongxing	0800	0063	108°33'1.710"E25°8'42.489"N	108°32'57.540"E25°8'34.551"N	108°32'42.282"E25°8'45.751"N	108°32'47.969"E25°8'52.577"N
956	Dongxing	Dongxing	1000	0006	108°32'49.270"E25°10'5.026"N	108°32'45.101"E25°10'2.077"N	108°32'40.169"E25°10'4.253"N	108°32'41.690"E25°10'6.577"N
957	Dongxing	Dongxing	1200	0052	108°31'3.112"E25°10'8.522"N	108°31'2.645"E25°10'6.969"N	108°30'55.086"E25°10'11.471"N	108°30'58.851"E25°10'13.245"N
958	Dongxing	Dongxing	1300	0015	108°30'17.437"E25°10'42.068"N	108°30'10.496"E25°10'41.036"N	108°30'6.625"E25°10'52.057"N	108°30'9.170"E25°10'53.413"N
959	Dongxing	Weicai	0700	0034	108°32'34.686"E25°12'10.636"N	108°32'24.688"E25°12'0.534"N	108°32'23.226"E25°12'3.191"N	108°32'25.759"E25°12'16.689"N
960	Dongxing	Weicai	1000	0010	108°30'26.369"E25°11'46.026"N	108°30'22.059"E25°11'41.161"N	108°30'20.472"E25°11'58.068"N	108°30'24.104"E25°12'9.156"N
961	Dongxing	Weicai	1100	0013	108°32'52.942"E25°11'54.302"N	108°32'49.637"E25°11'49.869"N	108°32'36.043"E25°11'58.597"N	108°32'43.986"E25°12'2.647"N
962	Dongxing	Jiudeng	0300	0076	108°36'47.372"E25°8'52.429"N	108°36'42.238"E25°8'48.571"N	108°36'34.063"E25°8'53.642"N	108°36'38.345"E25°8'58.908"N
963	Dongxing	Jiudeng	0500	0001	108°38'9.528"E25°9'22.173"N	108°37'52.675"E25°9'10.038"N	108°37'49.957"E25°9'10.793"N	108°38'9.528"E25°9'22.173"N
964	Dongxing	Jiudeng	0500	0040	108°38'6.715"E25°8'46.075"N	108°37'57.598"E25°8'38.658"N	108°37'36.703"E25°8'45.377"N	108°37'49.083"E25°8'50.955"N
965	Dongxing	Jiudeng	0600	0014	108°38'55.912"E25°9'1.286"N	108°38'51.419"E25°8'58.740"N	108°38'49.749"E25°8'59.093"N	108°38'54.082"E25°9'6.026"N
966	Dongxing	Jiudeng	0600	0048	108°38'34.208"E25°8'34.601"N	108°38'33.347"E25°8'34.507"N	108°38'16.703"E25°8'39.992"N	108°38'22.343"E25°8'46.831"N

967	Dongxing	Jiudeng	1000	0023	108°36'4.169"E25°8'24.267"N	108°35'54.557"E25°8'17.985"N	108°35'54.557"E25°8'18.040"N	108°35'56.801"E25°8'32.838"N
968	Dongxing	Jiudeng	1000	0026	108°36'23.217"E25°8'30.125"N	108°36'17.353"E25°8'17.916"N	108°36'12.881"E25°8'18.683"N	108°36'22.939"E25°8'30.363"N
969	Dongxing	Jiudeng	1100	0001	108°36'14.512"E25°8'59.196"N	108°36'7.421"E25°8'53.688"N	108°36'4.192"E25°8'55.627"N	108°36'12.526"E25°8'59.750"N
970	Dongxing	Jiudeng	1600	0001	108°35'33.558"E25°8'6.859"N	108°35'30.578"E25°7'59.562"N	108°35'22.947"E25°8'5.401"N	108°35'32.392"E25°8'7.865"N
971	Dongxing	Jiaying	0300	0019	108°30'19.682"E25°5'37.707"N	108°30'15.817"E25°5'32.132"N	108°30'13.030"E25°5'36.541"N	108°30'18.354"E25°5'40.317"N
972	Dongxing	Jiaying	1000	0011	108°31'59.817"E25°3'40.457"N	108°31'54.110"E25°3'32.130"N	108°31'44.862"E25°3'44.852"N	108°31'46.387"E25°3'47.779"N
973	Dongxing	Jiaying	1300	0024	108°30'24.558"E25°5'11.379"N	108°30'10.583"E25°5'5.555"N	108°30'9.981"E25°5'5.784"N	108°30'22.807"E25°5'13.318"N
974	Dongxing	Ping'an	0200	0015	108°37'46.230"E25°10'38.608"N	108°37'38.628"E25°10'34.542"N	108°37'33.988"E25°10'43.156"N	108°37'36.846"E25°10'44.201"N
975	Dongxing	Ping'an	0300	0012	108°37'0.750"E25°9'50.695"N	108°36'59.167"E25°9'47.526"N	108°36'47.521"E25°9'55.054"N	108°36'47.975"E25°9'55.943"N
976	Dongxing	Ping'an	0400	0069	108°37'41.295"E25°9'24.292"N	108°37'30.656"E25°9'21.917"N	108°37'30.194"E25°9'22.707"N	108°37'34.928"E25°9'28.750"N
977	Dongxing	Ping'an	1400	0018	108°39'26.644"E25°9'50.430"N	108°39'26.644"E25°9'50.430"N	108°39'3.315"E25°9'51.192"N	108°39'13.468"E25°10'5.113"N
978	Dongxing	Ping'an	4100	0033	108°38'42.033"E25°5'22.613"N	108°38'41.597"E25°5'22.310"N	108°38'26.649"E25°5'35.581"N	108°38'27.283"E25°5'36.315"N
979	Dongxing	Ping'an	4500	0048	108°41'1.896"E25°5'2.597"N	108°40'53.790"E25°5'0.941"N	108°40'48.879"E25°5'3.787"N	108°40'51.678"E25°5'6.651"N
980	Dongxing	Biaoshan	0100	0035	108°36'55.341"E25°15'1.135"N	108°36'53.049"E25°14'59.293"N	108°36'49.764"E25°15'2.451"N	108°36'52.959"E25°15'8.334"N
981	Dongxing	Biaoshan	0200	0001	108°37'43.798"E25°15'4.756"N	108°37'29.698"E25°14'54.124"N	108°37'23.169"E25°14'56.402"N	108°37'39.824"E25°15'6.741"N
982	Dongxing	Biaoshan	0200	0004	108°37'36.543"E25°14'52.085"N	108°37'34.744"E25°14'50.368"N	108°37'29.698"E25°14'54.124"N	108°37'31.963"E25°14'57.293"N
983	Dongxing	Biaoshan	0300	0003	108°36'48.248"E25°14'55.557"N	108°36'44.860"E25°14'53.594"N	108°36'41.025"E25°14'54.231"N	108°36'46.437"E25°15'0.818"N
984	Dongxing	Biaoshan	0300	0040	108°36'44.529"E25°14'19.980"N	108°36'24.063"E25°14'11.095"N	108°36'4.355"E25°14'21.699"N	108°36'24.251"E25°14'29.452"N
985	Dongxing	Biaoshan	1500	0035	108°36'47.542"E25°13'0.618"N	108°36'37.096"E25°12'54.347"N	108°36'31.614"E25°12'56.492"N	108°36'41.980"E25°13'4.109"N
986	Dongxing	Biaoshan	1600	0054	108°36'23.049"E25°12'27.923"N	108°36'16.834"E25°12'25.602"N	108°36'14.878"E25°12'29.616"N	108°36'17.088"E25°12'38.045"N
987	Dongxing	Biaoshan	1700	0055	108°35'31.876"E25°12'32.353"N	108°35'27.628"E25°12'24.242"N	108°35'24.941"E25°12'27.995"N	108°35'30.575"E25°12'33.198"N
988	Dongxing	Biaoshan	1700	0074	108°35'48.463"E25°12'17.585"N	108°35'43.838"E25°12'11.320"N	108°35'38.457"E25°12'14.898"N	108°35'47.042"E25°12'18.207"N
989	Dongxing	Biaoshan	1900	0036	108°34'22.200"E25°12'51.353"N	108°34'4.077"E25°12'45.134"N	108°33'56.207"E25°12'49.269"N	108°34'22.147"E25°12'51.354"N
990	Dongxing	Biaoshan	2400	0005	108°36'49.615"E25°11'58.550"N	108°36'43.466"E25°11'48.314"N	108°36'36.844"E25°11'55.877"N	108°36'48.831"E25°11'58.966"N
991	Dongxing	Biaoshan	2400	0019	108°36'50.266"E25°11'44.330"N	108°36'38.080"E25°11'16.765"N	108°36'30.594"E25°11'32.612"N	108°36'49.405"E25°11'45.487"N
992	Dongxing	Biaoshan	2400	0037	108°36'58.754"E25°11'24.154"N	108°36'55.205"E25°11'18.755"N	108°36'50.400"E25°11'35.700"N	108°36'51.038"E25°11'37.456"N
993	Dongxing	Biaoshan	2800	0031	108°34'36.410"E25°11'54.378"N	108°34'34.064"E25°11'53.056"N	108°34'26.658"E25°11'54.144"N	108°34'30.335"E25°11'57.490"N

994	Dongxing	Biaoshan	3000	0023	108°35'6.959"E25°10'55.197"N	108°34'45.722"E25°10'53.951"N	108°34'45.534"E25°10'54.601"N	108°34'56.378"E25°11'0.628"N
995	Dongxing	Biaoshan	3000	0027	108°35'30.898"E25°10'46.602"N	108°35'27.666"E25°10'41.074"N	108°35'12.429"E25°10'50.973"N	108°35'20.638"E25°10'59.034"N
996	Dongxing	Duya	0400	0128	108°30'32.288"E25°3'39.726"N	108°30'11.191"E25°3'24.890"N	108°30'6.817"E25°3'27.245"N	108°30'19.012"E25°3'45.703"N
997	Dongxing	Duya	0700	0014	108°29'2.961"E25°3'52.190"N	108°28'57.461"E25°3'47.284"N	108°28'54.588"E25°3'48.375"N	108°28'58.008"E25°3'54.757"N
998	Dongxing	Duya	0700	0061	108°29'14.110"E25°3'25.831"N	108°29'12.998"E25°3'19.022"N	108°29'6.127"E25°3'25.890"N	108°29'10.849"E25°3'29.459"N
999	Dongxing	Duya	0700	0068	108°28'54.654"E25°3'20.824"N	108°28'50.008"E25°3'15.639"N	108°28'41.983"E25°3'23.585"N	108°28'42.625"E25°3'24.049"N
1000	Dongxing	Duya	1300	0104	108°26'50.826"E25°2'20.495"N	108°26'45.928"E25°2'12.587"N	108°26'39.318"E25°2'21.167"N	108°26'48.438"E25°2'24.804"N
1001	Dongxing	Duya	1600	0016	108°29'32.942"E25°2'56.038"N	108°29'29.793"E25°2'53.085"N	108°29'11.786"E25°3'1.780"N	108°29'28.440"E25°3'7.515"N
1002	Dongxing	Duya	1700	0010	108°30'40.155"E25°3'1.634"N	108°30'30.885"E25°2'52.503"N	108°30'27.916"E25°3'1.059"N	108°30'36.687"E25°3'8.608"N
1003	Dongxing	Duya	1800	0061	108°31'6.281"E25°2'17.324"N	108°31'3.958"E25°2'12.697"N	108°30'57.025"E25°2'21.363"N	108°30'57.886"E25°2'23.357"N
1004	Dongxing	Duya	2000	0050	108°32'53.172"E25°2'10.920"N	108°32'49.858"E25°2'7.537"N	108°32'45.802"E25°2'11.509"N	108°32'47.974"E25°2'24.846"N
1005	Dongxing	Duya	2300	0051	108°30'13.193"E25°2'22.136"N	108°29'58.261"E25°2'15.524"N	108°29'56.372"E25°2'17.865"N	108°30'2.728"E25°2'27.690"N
1006	Dongxing	Chashan	1200	0060	108°36'36.078"E25°15'40.090"N	108°36'35.837"E25°15'37.318"N	108°36'22.101"E25°15'39.911"N	108°36'23.234"E25°15'43.611"N
1007	Dongxing	Chashan	1700	0046	108°35'6.750"E25°15'12.137"N	108°34'57.627"E25°15'8.845"N	108°34'30.060"E25°15'19.270"N	108°34'31.176"E25°15'20.538"N
1008	Dongxing	Chashan	2100	0041	108°33'51.725"E25°14'50.201"N	108°33'50.527"E25°14'46.681"N	108°33'44.807"E25°14'53.765"N	108°33'46.593"E25°14'55.640"N
1009	Dongxing	Chashan	2600	0030	108°32'54.684"E25°14'26.162"N	108°32'44.304"E25°14'9.962"N	108°32'42.529"E25°14'9.992"N	108°32'53.934"E25°14'26.242"N
1010	Dongxing	Daxing	0500	0047	108°37'39.373"E25°6'19.797"N	108°37'38.100"E25°6'18.732"N	108°37'13.617"E25°6'27.665"N	108°37'15.348"E25°6'29.247"N
1011	Dongxing	Daxing	0600	0001	108°36'54.509"E25°6'46.396"N	108°36'52.000"E25°6'38.893"N	108°36'43.357"E25°6'46.696"N	108°36'52.391"E25°6'49.323"N
1012	Dongxing	Daxing	0600	0034	108°37'33.080"E25°6'9.495"N	108°37'27.562"E25°6'7.386"N	108°37'11.195"E25°6'20.685"N	108°37'11.939"E25°6'21.320"N
1013	Dongxing	Daxing	1300	0003	108°35'30.505"E25°6'35.332"N	108°35'22.562"E25°6'27.178"N	108°35'16.531"E25°6'31.046"N	108°35'29.793"E25°6'37.325"N
1014	Dongxing	Daxing	1800	0003	108°37'14.140"E25°4'51.742"N	108°36'57.462"E25°4'36.002"N	108°36'54.811"E25°4'48.267"N	108°37'2.213"E25°4'56.389"N
1015	Dongxing	Daxing	1800	0014	108°37'30.533"E25°4'40.489"N	108°37'20.074"E25°4'33.478"N	108°37'13.929"E25°4'34.159"N	108°37'25.364"E25°4'42.102"N
1016	Dongxing	Longcheng	0200	0004	108°36'44.262"E25°5'5.429"N	108°36'31.137"E25°4'57.409"N	108°36'14.334"E25°5'10.229"N	108°36'36.001"E25°5'14.160"N
1017	Dongxing	Longcheng	0200	0028	108°36'25.087"E25°4'43.876"N	108°36'21.275"E25°4'39.119"N	108°36'10.530"E25°4'51.570"N	108°36'12.478"E25°4'54.783"N
1018	Dongxing	Longcheng	0200	0036	108°36'58.014"E25°4'40.402"N	108°36'47.400"E25°4'25.768"N	108°36'40.692"E25°4'34.406"N	108°36'45.530"E25°4'47.519"N
1019	Dongxing	Longcheng	0200	0059	108°36'36.866"E25°4'16.494"N	108°36'29.022"E25°4'7.587"N	108°36'24.829"E25°4'11.085"N	108°36'27.382"E25°4'22.005"N
1020	Dongxing	Longcheng	0500	0010	108°36'17.192"E25°3'43.078"N	108°36'14.352"E25°3'41.883"N	108°35'59.258"E25°3'46.572"N	108°36'3.734"E25°3'51.714"N

1021	Dongxing	Longcheng	0500	0066	108°36'23.823"E25°3'18.386"N	108°36'21.303"E25°3'17.951"N	108°36'4.731"E25°3'30.492"N	108°36'7.416"E25°3'31.147"N
1022	Dongxing	Longcheng	0600	0001	108°35'43.838"E25°4'32.485"N	108°35'42.162"E25°4'29.427"N	108°35'30.810"E25°4'39.167"N	108°35'35.701"E25°4'45.466"N
1023	Dongxing	Longcheng	0700	0020	108°34'57.182"E25°4'7.766"N	108°34'55.785"E25°3'59.335"N	108°34'47.015"E25°4'13.329"N	108°34'47.017"E25°4'13.415"N
1024	Dongxing	Longcheng	0800	0042	108°34'5.005"E25°3'44.109"N	108°33'49.575"E25°3'41.532"N	108°33'46.164"E25°3'48.338"N	108°33'46.808"E25°3'48.776"N
1025	Dongxing	Longcheng	1000	0008	108°34'15.790"E25°5'6.004"N	108°33'57.128"E25°4'57.748"N	108°33'51.947"E25°5'6.706"N	108°34'7.186"E25°5'13.302"N
1026	Dongxing	Longcheng	1200	0019	108°33'47.903"E25°6'5.325"N	108°33'38.502"E25°5'53.192"N	108°33'30.439"E25°5'58.211"N	108°33'35.844"E25°6'12.949"N
1027	Dongxing	Longcheng	1700	0013	108°35'13.437"E25°3'26.758"N	108°35'1.130"E25°3'17.999"N	108°34'50.978"E25°3'31.280"N	108°35'7.058"E25°3'40.767"N
1028	Dongxing	Longcheng	1900	0007	108°34'9.768"E25°2'56.669"N	108°34'0.566"E25°2'43.923"N	108°33'53.007"E25°2'53.134"N	108°33'59.770"E25°3'4.305"N
1029	Dongxing	Longcheng	1900	0123	108°34'41.577"E25°1'52.656"N	108°34'37.970"E25°1'46.615"N	108°34'33.243"E25°1'48.819"N	108°34'39.616"E25°1'58.343"N
1030	Huashan Forest Farm	Huanshan Branch Farm	0200	0022	108°19'2.749"E25°10'0.864"N	108°19'1.552"E25°9'59.700"N	108°18'51.708"E25°10'1.081"N	108°19'1.864"E25°10'5.630"N
1031	Huashan Forest Farm	Yalong Branch Farm	0600	0016	108°35'46.772"E25°2'0.619"N	108°35'46.772"E25°2'0.619"N	108°35'29.570"E25°2'8.152"N	108°35'38.637"E25°2'10.498"N
1032	Da'an	Tangfang	0600	0011	108°16'11.212"E24°56'51.285"N	108°15'59.666"E24°56'49.277"N	108°15'57.463"E24°56'51.207"N	108°16'3.086"E24°56'56.278"N
1033	Da'an	Caiping	1700	0031	108°19'27.665"E24°55'47.397"N	108°19'22.361"E24°55'44.040"N	108°19'21.675"E24°55'51.751"N	108°19'25.226"E24°55'53.317"N
1034	Da'an	Jinqiao	0100	0016	108°19'49.000"E25°2'42.386"N	108°19'44.759"E25°2'37.001"N	108°19'43.227"E25°2'43.006"N	108°19'45.063"E25°2'44.128"N
1035	Da'an	Jinqiao	0500	0013	108°23'42.893"E25°2'19.492"N	108°23'34.240"E25°2'16.129"N	108°23'33.672"E25°2'18.857"N	108°23'36.350"E25°2'29.719"N
1036	Da'an	Jinqiao	1100	0119	108°21'3.200"E25°1'23.097"N	108°21'0.875"E25°1'16.886"N	108°20'54.956"E25°1'22.120"N	108°20'58.081"E25°1'26.894"N
1037	Da'an	Jinqiao	1300	0014	108°19'14.930"E25°2'1.619"N	108°19'0.131"E25°1'46.769"N	108°19'0.131"E25°1'46.769"N	108°19'14.251"E25°2'2.986"N
1038	Da'an	Jinqiao	1500	0019	108°20'12.694"E25°0'30.884"N	108°20'4.340"E25°0'22.150"N	108°19'57.953"E25°0'33.295"N	108°20'8.517"E25°0'34.583"N
1039	Tiancai	Xinpo	0200	0008	108°20'11.830"E24°44'47.182"N	108°20'9.681"E24°44'44.258"N	108°20'2.501"E24°44'52.869"N	108°20'6.506"E24°44'54.420"N
1040	Chuanshan	Xiafeng	0200	0008	108°3'57.245"E25°5'17.605"N	108°3'44.508"E25°5'8.999"N	108°3'37.011"E25°5'17.253"N	108°3'50.865"E25°5'21.387"N
1041	Chuanshan	Xiafeng	0300	0049	108°4'54.637"E25°5'7.529"N	108°4'44.238"E25°5'4.275"N	108°4'43.602"E25°5'5.507"N	108°4'48.408"E25°5'10.654"N
1042	Chuanshan	Xiafeng	0500	0036	108°2'56.584"E25°4'53.242"N	108°2'46.860"E25°4'50.536"N	108°2'40.825"E25°5'2.043"N	108°2'46.377"E25°5'2.648"N
1043	Chuanshan	Xiafeng	0500	0108	108°2'17.472"E25°4'22.268"N	108°2'17.184"E25°4'21.701"N	108°2'9.203"E25°4'27.856"N	108°2'12.617"E25°4'32.355"N
1044	Chuanshan	Xiafeng	0500	0134	108°3'24.436"E25°4'22.880"N	108°3'12.697"E25°4'14.875"N	108°3'11.919"E25°4'15.133"N	108°3'22.850"E25°4'23.590"N
1045	Chuanshan	Xiagan	0400	0015	108°1'49.056"E25°3'14.209"N	108°1'44.740"E25°3'7.589"N	108°1'35.471"E25°3'15.714"N	108°1'46.397"E25°3'27.478"N
1046	Chuanshan	Leyi	0500	0002	108°1'18.018"E25°6'46.988"N	108°1'13.008"E25°6'40.199"N	108°1'9.574"E25°6'46.411"N	108°1'15.297"E25°6'50.229"N
1047	Chuanshan	Wuwei	0300	0014	108°6'7.948"E25°6'32.052"N	108°6'3.640"E25°6'24.857"N	108°5'54.107"E25°6'30.268"N	108°5'57.456"E25°6'37.760"N

1048	Chuanshan	Wuwei	0300	0039	108°6'2.060"E25°6'17.146"N	108°5'50.135"E25°6'13.725"N	108°5'44.563"E25°6'17.860"N	108°5'46.863"E25°6'20.293"N
1049	Chuanshan	Wuwei	0400	0007	108°6'36.418"E25°7'18.098"N	108°6'29.685"E25°7'12.049"N	108°6'26.984"E25°7'15.232"N	108°6'31.189"E25°7'21.406"N
1050	Chuanshan	Hedun	0200	0039	108°8'18.491"E25°10'22.274"N	108°7'58.699"E25°10'2.415"N	108°7'51.379"E25°10'8.230"N	108°8'8.201"E25°10'27.845"N
1051	Chuanshan	Hedun	0800	0042	108°6'0.005"E25°8'33.156"N	108°5'58.568"E25°8'28.828"N	108°5'53.053"E25°8'37.063"N	108°5'55.391"E25°8'39.866"N
1052	Chuanshan	Hedun	0900	0028	108°7'7.890"E25°9'33.545"N	108°7'1.406"E25°9'27.220"N	108°6'59.397"E25°9'35.744"N	108°7'5.243"E25°9'38.105"N
1053	Chuanshan	Hedun	1000	0058	108°6'13.417"E25°8'20.576"N	108°6'10.391"E25°8'13.001"N	108°6'8.185"E25°8'22.882"N	108°6'10.369"E25°8'24.965"N
1054	Chuanshan	Hedun	1100	0060	108°8'4.539"E25°9'38.965"N	108°7'59.279"E25°9'35.028"N	108°7'51.559"E25°9'35.494"N	108°7'55.147"E25°9'46.296"N
1055	Chuanshan	Hedun	1500	0026	108°9'54.092"E25°8'34.607"N	108°9'51.135"E25°8'20.510"N	108°9'46.869"E25°8'33.692"N	108°9'49.104"E25°8'42.357"N
1056	Chuanshan	Hedun	1800	0056	108°7'51.113"E25°9'1.774"N	108°7'51.113"E25°9'1.774"N	108°7'41.518"E25°9'6.792"N	108°7'47.470"E25°9'9.684"N
1057	Chuanshan	Hedun	1900	0028	108°8'0.528"E25°8'46.843"N	108°8'0.172"E25°8'45.059"N	108°7'50.864"E25°8'48.649"N	108°7'51.640"E25°8'50.821"N
1058	Chuanshan	Hedun	2000	0010	108°8'42.160"E25°8'13.821"N	108°8'41.487"E25°8'13.395"N	108°8'26.408"E25°8'24.120"N	108°8'27.404"E25°8'26.385"N
1059	Chuanshan	Gubin	1000	0038	108°9'42.312"E25°2'19.927"N	108°9'37.825"E25°2'16.686"N	108°9'30.023"E25°2'20.951"N	108°9'34.123"E25°2'23.402"N
1060	Chuanshan	Gubin	1100	0024	108°8'37.717"E25°2'56.131"N	108°8'35.404"E25°2'53.693"N	108°8'28.215"E25°2'56.338"N	108°8'33.124"E25°3'0.005"N
1061	Chuanshan	Tangwan	0100	0065	108°1'44.154"E25°1'25.849"N	108°1'35.125"E25°1'20.513"N	108°1'32.825"E25°1'24.719"N	108°1'37.469"E25°1'32.324"N
1062	Chuanshan	Tangwan	0500	0024	108°0'59.351"E25°0'35.176"N	108°0'56.789"E25°0'32.365"N	108°0'52.519"E25°0'36.397"N	108°0'54.166"E25°0'38.497"N
1063	Chuanshan	Tangwan	0500	0071	108°1'26.332"E25°0'8.835"N	108°1'13.384"E24°59'57.099"N	108°1'4.561"E25°0'8.593"N	108°1'12.333"E25°0'13.244"N
1064	Chuanshan	Linlang	0100	0001	108°3'49.248"E25°3'28.074"N	108°3'43.756"E25°3'8.994"N	108°3'36.530"E25°3'16.872"N	108°3'49.236"E25°3'28.481"N
1065	Chuanshan	Linlang	0100	0041	108°4'13.392"E25°2'49.791"N	108°4'8.224"E25°2'41.788"N	108°4'3.108"E25°2'45.494"N	108°4'8.340"E25°2'50.424"N
1066	Chuanshan	Youdong	0100	0065	108°5'33.192"E25°4'44.001"N	108°5'23.836"E25°4'34.200"N	108°5'22.302"E25°4'40.448"N	108°5'32.900"E25°4'44.371"N
1067	Chuanshan	Youdong	0100	0082	108°5'22.434"E25°4'36.920"N	108°5'17.501"E25°4'26.475"N	108°5'6.957"E25°4'27.840"N	108°5'19.928"E25°4'37.511"N
1068	Chuanshan	Youdong	0300	0041	108°5'33.595"E25°3'54.114"N	108°5'28.064"E25°3'50.422"N	108°5'24.139"E25°3'52.282"N	108°5'28.888"E25°3'57.726"N
1069	Chuanshan	Youdong	0400	0062	108°4'49.822"E25°3'52.110"N	108°4'46.487"E25°3'48.626"N	108°4'37.654"E25°3'55.830"N	108°4'39.227"E25°3'56.576"N
1070	Chuanshan	Youdong	0400	0063	108°5'0.197"E25°3'51.742"N	108°4'53.157"E25°3'48.998"N	108°4'50.979"E25°3'53.291"N	108°4'55.698"E25°3'53.803"N
1071	Chuanshan	Youdong	0500	0024	108°4'29.178"E25°3'37.367"N	108°4'23.946"E25°3'30.128"N	108°4'20.128"E25°3'40.643"N	108°4'21.767"E25°3'45.419"N
1072	Chuanshan	Baidan	0600	0037	108°2'28.954"E25°5'18.307"N	108°2'24.950"E25°5'15.986"N	108°2'19.685"E25°5'18.740"N	108°2'25.537"E25°5'20.776"N
1073	Chuanshan	Shacun	2500	0131	108°3'58.811"E25°7'11.783"N	108°3'57.734"E25°7'10.122"N	108°3'49.918"E25°7'18.929"N	108°3'53.353"E25°7'21.099"N
1074	Chuanshan	Shacun	2700	0049	108°5'29.755"E25°7'43.610"N	108°5'25.918"E25°7'37.979"N	108°5'16.512"E25°7'46.373"N	108°5'23.382"E25°7'49.431"N

1075	Chuanshan	Shecun	2800	0026	108°5'18.134"E25°6'55.387"N	108°5'9.853"E25°6'49.153"N	108°5'8.652"E25°6'50.017"N	108°5'14.043"E25°6'58.111"N
1076	Chuanshan	Shecun	2800	0133	108°5'37.985"E25°5'41.422"N	108°5'31.866"E25°5'34.965"N	108°5'19.440"E25°5'39.578"N	108°5'26.035"E25°5'46.894"N
1077	Chuanshan	Shecun	2900	0080	108°4'50.805"E25°6'52.918"N	108°4'46.350"E25°6'47.895"N	108°4'43.343"E25°6'50.834"N	108°4'47.526"E25°6'56.639"N
1078	Chuanshan	Chajiang	0200	0001	108°2'35.721"E25°3'1.803"N	108°2'26.426"E25°2'56.967"N	108°2'25.301"E25°2'59.767"N	108°2'32.964"E25°3'2.732"N
1079	Chuanshan	Chajiang	0200	0031	108°2'40.089"E25°2'40.846"N	108°2'32.884"E25°2'36.766"N	108°2'25.898"E25°2'38.655"N	108°2'32.807"E25°2'43.746"N
1080	Chuanshan	Chajiang	0400	0022	108°3'3.851"E25°1'56.900"N	108°2'59.105"E25°1'55.773"N	108°2'43.971"E25°1'57.827"N	108°2'58.926"E25°2'5.816"N
1081	Si'en	Sanle	0100	0058	108°14'52.153"E24°51'31.834"N	108°14'44.300"E24°51'26.856"N	108°14'37.541"E24°51'28.682"N	108°14'50.236"E24°51'34.819"N
1082	Si'en	Zhongxing	0100	0136	108°12'42.816"E24°52'21.015"N	108°12'36.401"E24°52'13.276"N	108°12'35.130"E24°52'14.186"N	108°12'38.334"E24°52'22.684"N
1083	Si'en	Zhongxing	0400	0001	108°12'34.177"E24°52'10.856"N	108°12'29.403"E24°52'8.735"N	108°12'22.864"E24°52'11.868"N	108°12'27.857"E24°52'14.600"N
1084	Si'en	Zhongxing	0600	0059	108°12'30.414"E24°50'54.018"N	108°12'28.935"E24°50'50.301"N	108°12'17.566"E24°50'55.896"N	108°12'22.113"E24°51'3.349"N
1085	Si'en	Zhongshan	0400	0052	108°14'30.023"E24°55'38.022"N	108°14'28.143"E24°55'36.551"N	108°14'21.425"E24°55'38.988"N	108°14'26.079"E24°55'46.371"N
1086	Si'en	Renhe	1100	0049	108°18'24.890"E24°51'20.853"N	108°18'22.370"E24°51'16.349"N	108°18'14.691"E24°51'21.489"N	108°18'15.494"E24°51'22.036"N
1087	Si'en	Renhe	1700	0075	108°17'46.222"E24°49'59.461"N	108°17'31.019"E24°49'54.989"N	108°17'29.264"E24°50'4.394"N	108°17'37.989"E24°50'9.483"N
1088	Si'en	Chengguan	0300	0039	108°16'10.254"E24°50'31.568"N	108°16'5.339"E24°50'24.627"N	108°16'4.558"E24°50'31.135"N	108°16'7.387"E24°50'35.386"N
1089	Si'en	Chengguan	0700	0017	108°15'12.453"E24°48'41.229"N	108°15'3.816"E24°48'38.465"N	108°14'59.680"E24°48'40.776"N	108°15'5.403"E24°48'45.945"N
1090	Si'en	Chengguan	0700	0033	108°15'23.081"E24°48'19.363"N	108°15'14.893"E24°48'8.465"N	108°15'11.205"E24°48'12.736"N	108°15'21.931"E24°48'23.544"N
1091	Si'en	Anliang	0300	0047	108°17'32.613"E24°52'31.703"N	108°17'23.136"E24°52'29.211"N	108°17'19.097"E24°52'36.703"N	108°17'20.304"E24°52'37.428"N
1092	Si'en	Wenhua	0200	0008	108°17'9.449"E24°49'33.648"N	108°17'0.834"E24°49'21.820"N	108°16'59.716"E24°49'22.527"N	108°17'1.676"E24°49'34.522"N
1093	Si'en	Wenhua	0200	0012	108°16'59.206"E24°49'27.742"N	108°16'51.792"E24°49'22.577"N	108°16'48.431"E24°49'25.334"N	108°16'51.627"E24°49'33.103"N
1094	Si'en	Wenhua	0300	0034	108°18'30.287"E24°48'32.798"N	108°18'25.887"E24°48'27.836"N	108°18'23.447"E24°48'31.504"N	108°18'26.815"E24°48'39.932"N
1095	Si'en	Wenhua	0300	0094	108°18'9.447"E24°47'51.410"N	108°18'5.670"E24°47'44.047"N	108°17'58.432"E24°48'3.273"N	108°18'0.723"E24°48'3.618"N
1096	Si'en	Wenhua	0500	0019	108°17'35.659"E24°48'23.225"N	108°17'32.446"E24°48'20.603"N	108°17'25.389"E24°48'31.215"N	108°17'27.989"E24°48'33.556"N
1097	Si'en	Wenhua	0800	0006	108°15'34.897"E24°47'23.928"N	108°15'32.658"E24°47'15.474"N	108°15'25.984"E24°47'22.747"N	108°15'28.251"E24°47'26.200"N
1098	Si'en	Naihe	0300	0052	108°12'36.044"E24°49'37.209"N	108°12'28.659"E24°49'30.146"N	108°12'26.867"E24°49'33.668"N	108°12'30.421"E24°49'38.552"N
1099	Si'en	Xinan	0100	0001	108°11'1.245"E24°51'54.643"N	108°10'54.896"E24°51'51.524"N	108°10'52.881"E24°51'52.985"N	108°10'56.411"E24°52'0.000"N
1100	Si'en	Xinan	0100	0075	108°10'56.373"E24°51'10.010"N	108°10'53.357"E24°51'6.548"N	108°10'48.722"E24°51'13.577"N	108°10'52.748"E24°51'19.731"N
1101	Si'en	Xinan	0400	0020	108°11'6.529"E24°50'22.198"N	108°11'0.955"E24°50'18.838"N	108°10'58.836"E24°50'19.937"N	108°11'3.055"E24°50'24.137"N

1102	Si'en	Xinan	0600	0052	108°12'17.600"E24°49'53.841"N	108°12'10.654"E24°49'50.329"N	108°12'6.826"E24°49'51.431"N	108°12'13.844"E24°49'56.013"N
1103	Si'en	Chenshuang	0100	0036	108°13'54.974"E24°55'44.742"N	108°13'44.391"E24°55'29.954"N	108°13'43.121"E24°55'31.477"N	108°13'54.936"E24°55'45.001"N
1104	Si'en	Chenshuang	0500	0091	108°14'19.429"E24°54'0.328"N	108°14'12.495"E24°53'53.568"N	108°14'8.132"E24°53'55.237"N	108°14'14.249"E24°54'4.754"N
1105	Si'en	Chenshuang	0700	0024	108°12'1.666"E24°53'59.881"N	108°11'59.074"E24°53'53.473"N	108°11'52.534"E24°53'56.820"N	108°12'0.667"E24°54'2.420"N
1106	Si'en	Chenshuang	1100	0144	108°14'51.464"E24°52'26.297"N	108°14'51.454"E24°52'26.225"N	108°14'34.965"E24°52'28.041"N	108°14'43.851"E24°52'34.211"N
1107	Minglun	Caibo	0100	0065	108°22'47.183"E25°17'16.246"N	108°22'46.594"E25°17'15.371"N	108°22'35.494"E25°17'22.226"N	108°22'36.219"E25°17'24.202"N
1108	Minglun	Minglun	0800	0050	108°23'4.035"E25°11'46.295"N	108°23'3.411"E25°11'44.475"N	108°22'52.167"E25°11'53.732"N	108°22'57.232"E25°11'56.734"N
1109	Minglun	Minglun	1800	0009	108°23'57.741"E25°11'39.678"N	108°23'49.175"E25°11'36.390"N	108°23'46.371"E25°11'41.404"N	108°23'51.253"E25°11'44.192"N
1110	Minglun	Minglun	2000	0043	108°21'53.538"E25°10'25.335"N	108°21'48.494"E25°10'21.243"N	108°21'44.373"E25°10'26.478"N	108°21'47.268"E25°10'36.884"N
1111	Minglun	Liuping	0100	0002	108°21'6.749"E25°5'27.965"N	108°21'2.425"E25°5'24.459"N	108°20'57.729"E25°5'30.426"N	108°21'4.626"E25°5'34.350"N
1112	Minglun	Hekuang	0600	0050	108°25'54.405"E25°5'23.483"N	108°25'46.008"E25°5'17.537"N	108°25'43.624"E25°5'24.549"N	108°25'46.478"E25°5'28.938"N
1113	Minglun	Hekuang	0800	0040	108°27'42.490"E25°5'14.064"N	108°27'37.094"E25°5'0.436"N	108°27'32.073"E25°5'3.717"N	108°27'38.263"E25°5'19.114"N
1114	Minglun	Baixiang	0200	0002	108°24'3.435"E25°11'12.602"N	108°23'59.839"E25°11'10.574"N	108°23'49.546"E25°11'15.685"N	108°23'58.452"E25°11'18.318"N
1115	Minglun	Baixiang	0700	0002	108°25'45.068"E25°9'34.803"N	108°25'33.372"E25°9'22.975"N	108°25'15.630"E25°9'33.038"N	108°25'36.055"E25°9'41.417"N
1116	Minglun	Cuishan	0500	0017	108°21'44.576"E25°17'48.599"N	108°21'42.772"E25°17'46.599"N	108°21'40.006"E25°18'3.166"N	108°21'40.986"E25°18'19.060"N
1117	Minglun	Yinghao	0700	0008	108°25'38.847"E25°7'39.584"N	108°25'30.172"E25°7'36.140"N	108°25'25.306"E25°7'43.697"N	108°25'29.526"E25°7'47.929"N
1118	Minglun	Yinghao	0700	0027	108°25'39.480"E25°7'26.537"N	108°25'29.520"E25°7'17.617"N	108°25'29.105"E25°7'23.814"N	108°25'35.380"E25°7'29.376"N
1119	Minglun	Yinghao	0700	0029	108°25'30.204"E25°7'27.365"N	108°25'23.434"E25°7'20.126"N	108°25'16.467"E25°7'23.950"N	108°25'28.616"E25°7'28.767"N
1120	Minglun	Haodong	1000	0067	108°21'11.798"E25°7'0.790"N	108°21'10.264"E25°6'58.781"N	108°21'0.037"E25°7'3.280"N	108°21'3.021"E25°7'6.396"N
1121	Minglun	Haodong	1100	0008	108°21'35.278"E25°6'45.580"N	108°21'32.314"E25°6'36.497"N	108°21'26.572"E25°6'43.002"N	108°21'31.771"E25°6'48.030"N
1122	Shuiyuan	Zhongjian	0200	0034	108°11'24.324"E24°55'26.973"N	108°11'17.831"E24°55'17.548"N	108°11'17.422"E24°55'19.730"N	108°11'22.860"E24°55'29.339"N
1123	Shuiyuan	Zhongjian	0300	0044	108°10'41.625"E24°54'26.197"N	108°10'38.679"E24°54'23.608"N	108°10'29.840"E24°54'26.324"N	108°10'34.713"E24°54'29.275"N
1124	Shuiyuan	Zhongjian	0400	0115	108°11'37.895"E24°54'14.689"N	108°11'35.875"E24°54'13.953"N	108°11'29.016"E24°54'15.804"N	108°11'32.120"E24°54'21.468"N
1125	Shuiyuan	Heping	0100	0010	108°9'8.497"E24°57'59.943"N	108°8'59.501"E24°57'54.951"N	108°8'56.290"E24°58'5.576"N	108°8'57.279"E24°58'6.581"N
1126	Shuiyuan	Heping	0300	0057	108°9'4.475"E24°56'59.674"N	108°8'56.478"E24°56'58.638"N	108°8'52.179"E24°57'5.234"N	108°8'54.127"E24°57'8.533"N
1127	Shuiyuan	Heping	0700	0076	108°8'19.792"E24°55'25.256"N	108°8'12.167"E24°55'20.139"N	108°8'9.932"E24°55'28.052"N	108°8'13.272"E24°55'29.785"N
1128	Shuiyuan	Shuiyuan	0100	0077	108°7'40.120"E24°55'20.584"N	108°7'31.810"E24°55'18.124"N	108°7'28.137"E24°55'22.564"N	108°7'32.621"E24°55'25.120"N

1129	Shuiyuan	Shuiyuan	0300	0051	108°7'29.357"E24°54'22.215"N	108°7'21.675"E24°54'12.935"N	108°7'19.920"E24°54'14.768"N	108°7'27.661"E24°54'23.453"N
1130	Shuiyuan	Shuiyuan	0400	0104	108°8'32.199"E24°54'21.395"N	108°8'23.567"E24°54'18.916"N	108°8'20.268"E24°54'19.891"N	108°8'26.319"E24°54'24.393"N
1131	Shuiyuan	Shuiyuan	0600	0034	108°9'35.953"E24°54'22.311"N	108°9'31.990"E24°54'19.757"N	108°9'27.492"E24°54'26.331"N	108°9'30.718"E24°54'28.039"N
1132	Shuiyuan	Shuiyuan	0600	0046	108°9'18.980"E24°54'21.505"N	108°9'12.634"E24°54'12.383"N	108°9'10.673"E24°54'15.008"N	108°9'17.530"E24°54'23.554"N
1133	Shuiyuan	Shuiyuan	0600	0083	108°9'26.296"E24°54'7.948"N	108°9'20.079"E24°53'58.275"N	108°9'15.703"E24°54'1.079"N	108°9'21.127"E24°54'9.948"N
1134	Shuiyuan	Shuiyuan	0700	0056	108°9'38.146"E24°53'52.717"N	108°9'34.707"E24°53'49.811"N	108°9'29.024"E24°53'51.197"N	108°9'33.246"E24°53'57.770"N
1135	Shuiyuan	Shuiyuan	0800	0094	108°9'5.300"E24°53'1.073"N	108°9'3.520"E24°52'57.241"N	108°8'53.332"E24°53'0.696"N	108°8'57.824"E24°53'9.075"N
1136	Shuiyuan	Shuiyuan	0900	0007	108°7'44.679"E24°54'4.182"N	108°7'41.433"E24°54'1.407"N	108°7'35.378"E24°54'8.601"N	108°7'38.827"E24°54'13.532"N
1137	Luoyang	Guchang	0500	0005	108°15'26.826"E25°1'58.046"N	108°15'21.248"E25°1'46.102"N	108°15'17.716"E25°1'51.288"N	108°15'24.280"E25°1'59.756"N
1138	Luoyang	Guchang	0600	0043	108°15'14.789"E25°0'18.230"N	108°14'57.893"E25°0'10.437"N	108°14'56.967"E25°0'12.777"N	108°15'10.102"E25°0'23.275"N
1139	Luoyang	Guchang	1100	0006	108°12'52.933"E24°59'56.799"N	108°12'48.775"E24°59'52.070"N	108°12'45.622"E24°59'54.997"N	108°12'49.032"E25°0'3.227"N
1140	Luoyang	Guchang	1100	0027	108°13'12.725"E24°59'39.707"N	108°13'7.599"E24°59'37.119"N	108°13'6.327"E24°59'39.712"N	108°13'9.915"E24°59'47.563"N
1141	Luoyang	Guchang	1100	0044	108°13'16.492"E24°59'33.257"N	108°13'5.923"E24°59'22.646"N	108°13'4.427"E24°59'23.809"N	108°13'15.745"E24°59'33.334"N
1142	Luoyang	Hezuo	0100	0010	108°16'59.760"E24°59'28.906"N	108°16'58.776"E24°59'17.883"N	108°16'46.797"E24°59'21.029"N	108°16'59.317"E24°59'29.320"N
1143	Luoyang	Hezuo	0200	0035	108°15'24.186"E24°59'7.777"N	108°15'21.234"E24°59'0.150"N	108°15'13.399"E24°59'5.246"N	108°15'20.049"E24°59'7.913"N
1144	Luoyang	Hezuo	0500	0046	108°14'51.042"E24°58'6.687"N	108°14'38.589"E24°58'2.862"N	108°14'37.996"E24°58'6.267"N	108°14'40.430"E24°58'14.365"N
1145	Luoyang	Tuanjie	0100	0199	108°10'16.490"E24°57'7.294"N	108°10'16.003"E24°57'6.783"N	108°10'5.943"E24°57'14.360"N	108°10'8.910"E24°57'16.832"N
1146	Luoyang	Tuanjie	0400	0081	108°9'58.702"E24°56'10.534"N	108°9'46.474"E24°56'4.678"N	108°9'43.182"E24°56'9.529"N	108°9'51.071"E24°56'12.407"N
1147	Luoyang	Tuanjie	0400	0106	108°10'2.400"E24°55'59.555"N	108°9'57.990"E24°55'54.762"N	108°9'50.922"E24°56'5.191"N	108°9'59.489"E24°56'8.673"N
1148	Luoyang	Tuanjie	0400	0174	108°11'14.206"E24°55'54.375"N	108°11'6.497"E24°55'40.850"N	108°11'1.333"E24°55'46.589"N	108°11'8.253"E24°55'56.119"N
1149	Luoyang	Tuanjie	0500	0044	108°10'21.720"E24°55'20.053"N	108°10'20.397"E24°55'18.195"N	108°10'12.612"E24°55'23.367"N	108°10'14.556"E24°55'28.585"N
1150	Luoyang	Tuanjie	0500	0078	108°9'33.487"E24°55'13.797"N	108°9'32.567"E24°55'11.093"N	108°9'21.258"E24°55'17.630"N	108°9'22.439"E24°55'18.917"N
1151	Luoyang	Dimeng	0300	0061	108°13'10.625"E25°6'28.000"N	108°12'58.511"E25°6'18.426"N	108°12'57.521"E25°6'19.292"N	108°13'7.503"E25°6'33.074"N
1152	Luoyang	Dimeng	0300	0062	108°13'26.660"E25°6'27.124"N	108°13'21.310"E25°6'19.347"N	108°13'17.450"E25°6'28.695"N	108°13'18.453"E25°6'32.408"N
1153	Luoyang	Dimeng	0600	0061	108°12'12.120"E25°6'12.371"N	108°12'5.034"E25°5'52.189"N	108°12'4.098"E25°5'58.723"N	108°12'10.633"E25°6'12.977"N
1154	Luoyang	Dimeng	1000	0036	108°12'5.959"E25°4'30.038"N	108°12'2.165"E25°4'21.765"N	108°11'54.990"E25°4'31.331"N	108°11'57.009"E25°4'33.823"N
1155	Luoyang	Dimeng	1200	0062	108°13'37.399"E25°4'26.395"N	108°13'32.096"E25°4'22.075"N	108°13'25.014"E25°4'24.259"N	108°13'34.211"E25°4'29.545"N

1156	Luoyang	Dimeng	1200	0096	108°13'18.615"E25°4'4.560"N	108°13'9.620"E25°3'57.874"N	108°13'7.956"E25°4'0.598"N	108°13'16.133"E25°4'6.259"N
1157	Luoyang	Miaoshi	0500	0033	108°7'48.683"E25°0'22.949"N	108°7'41.032"E25°0'15.410"N	108°7'33.301"E25°0'25.451"N	108°7'41.253"E25°0'29.074"N
1158	Luoyang	Miaoshi	0600	0015	108°8'14.148"E25°0'39.723"N	108°8'7.381"E25°0'35.651"N	108°8'6.026"E25°0'39.906"N	108°8'9.285"E25°0'47.431"N
1159	Luoyang	Miaoshi	0600	0031	108°8'11.809"E25°0'18.539"N	108°8'6.079"E25°0'15.291"N	108°8'0.640"E25°0'18.047"N	108°8'7.905"E25°0'25.027"N
1160	Luoyang	Miaoshi	0800	0023	108°9'36.297"E25°0'34.645"N	108°9'25.413"E25°0'24.446"N	108°9'22.814"E25°0'28.216"N	108°9'36.297"E25°0'34.645"N
1161	Luoyang	Miaoshi	1000	0021	108°9'11.361"E24°59'56.526"N	108°9'0.923"E24°59'49.123"N	108°8'58.326"E24°59'54.397"N	108°9'6.048"E24°59'58.338"N
1162	Luoyang	Miaoshi	1000	0031	108°9'7.771"E24°59'41.247"N	108°9'1.948"E24°59'36.284"N	108°9'0.559"E24°59'45.902"N	108°9'2.157"E24°59'49.228"N
1163	Luoyang	Miaoshi	1300	0107	108°8'23.983"E24°58'33.822"N	108°8'12.795"E24°58'29.595"N	108°8'8.960"E24°58'32.296"N	108°8'15.280"E24°58'35.355"N
1164	Luoyang	Miaoshi	1500	0037	108°9'6.980"E24°58'24.137"N	108°9'1.273"E24°58'21.547"N	108°8'55.869"E24°58'28.352"N	108°8'58.600"E24°58'29.554"N
1165	Luoyang	Wenya	0100	0037	108°16'10.824"E25°16'32.725"N	108°16'4.263"E25°16'22.100"N	108°15'49.130"E25°16'36.037"N	108°15'57.974"E25°16'42.453"N
1166	Luoyang	Wenya	0400	0030	108°16'11.483"E25°14'50.189"N	108°16'10.466"E25°14'49.686"N	108°15'58.490"E25°14'51.747"N	108°16'9.308"E25°14'58.923"N
1167	Luoyang	Pule	0300	0053	108°10'44.201"E25°1'12.958"N	108°10'41.332"E25°1'8.165"N	108°10'32.667"E25°1'17.558"N	108°10'34.844"E25°1'19.748"N
1168	Luoyang	Pule	0600	0018	108°11'30.118"E25°1'30.800"N	108°11'20.497"E25°1'22.167"N	108°11'17.128"E25°1'23.624"N	108°11'28.341"E25°1'32.172"N
1169	Luoyang	Pule	0700	0009	108°11'55.894"E25°0'50.298"N	108°11'51.744"E25°0'47.126"N	108°11'46.509"E25°0'48.712"N	108°11'50.666"E25°0'52.039"N
1170	Luoyang	Pule	0700	0022	108°12'19.503"E25°0'35.644"N	108°12'14.231"E25°0'33.900"N	108°12'11.355"E25°0'38.404"N	108°12'14.802"E25°0'41.365"N
1171	Luoyang	Pule	0700	0027	108°12'24.914"E25°0'29.192"N	108°12'20.910"E25°0'23.858"N	108°12'18.691"E25°0'33.046"N	108°12'20.149"E25°0'34.272"N
1172	Luoyang	Pule	0800	0066	108°12'37.808"E24°59'36.237"N	108°12'31.893"E24°59'23.532"N	108°12'24.972"E24°59'33.304"N	108°12'31.095"E24°59'38.855"N
1173	Luoyang	Yong'an	0400	0032	108°12'27.982"E25°9'26.873"N	108°12'16.137"E25°9'25.602"N	108°12'15.330"E25°9'26.351"N	108°12'21.906"E25°9'31.473"N
1174	Luoyang	Yong'an	0600	0009	108°12'9.333"E25°9'5.974"N	108°12'7.277"E25°9'0.964"N	108°12'2.362"E25°9'14.410"N	108°12'3.375"E25°9'16.299"N
1175	Luoyang	Yong'an	1000	0039	108°12'23.507"E25°8'16.308"N	108°12'19.478"E25°8'6.085"N	108°12'14.643"E25°8'12.543"N	108°12'22.009"E25°8'17.397"N
1176	Luoyang	Yong'an	1200	0057	108°13'15.765"E25°7'37.830"N	108°13'13.018"E25°7'29.352"N	108°13'2.286"E25°7'33.359"N	108°13'15.454"E25°7'37.920"N
1177	Luoyang	Yongquan	0600	0033	108°20'20.200"E25°7'30.074"N	108°20'14.173"E25°7'19.439"N	108°20'12.076"E25°7'20.691"N	108°20'20.200"E25°7'30.074"N
1178	Luoyang	Yongquan	1500	0044	108°15'8.766"E25°7'13.164"N	108°14'56.553"E25°7'10.127"N	108°14'56.001"E25°7'10.201"N	108°15'5.713"E25°7'19.708"N
1179	Luoyang	Yongquan	1800	0013	108°14'21.898"E25°7'1.710"N	108°14'17.174"E25°6'57.384"N	108°14'14.683"E25°7'1.678"N	108°14'15.771"E25°7'2.872"N
1180	Luoyang	Yongquan	2900	0053	108°17'19.634"E25°5'56.075"N	108°17'8.923"E25°5'49.665"N	108°17'8.923"E25°5'49.665"N	108°17'16.331"E25°6'2.334"N
1181	Luoyang	Yongquan	3000	0033	108°16'57.641"E25°4'18.095"N	108°16'47.497"E25°4'3.831"N	108°16'40.885"E25°4'10.736"N	108°16'57.425"E25°4'18.135"N
1182	Luoyang	Yongquan	3300	0051	108°17'57.747"E25°0'43.965"N	108°17'57.747"E25°0'43.965"N	108°17'42.479"E25°0'50.237"N	108°17'48.137"E25°1'4.511"N

1183	Luoyang	Jiangkou	0100	0020	108°15'1.524"E25°2'19.062"N	108°14'58.585"E25°2'17.378"N	108°14'48.962"E25°2'18.695"N	108°14'58.300"E25°2'23.389"N
1184	Luoyang	Jiangkou	0400	0134	108°13'48.718"E25°1'28.380"N	108°13'39.504"E25°1'24.757"N	108°13'38.537"E25°1'25.598"N	108°13'46.688"E25°1'37.789"N
1185	Luoyang	Jiangkou	0600	0005	108°13'55.431"E25°1'2.875"N	108°13'52.472"E25°0'56.256"N	108°13'42.692"E25°1'0.484"N	108°13'50.822"E25°1'6.500"N
1186	Luoyang	Jiangkou	0600	0061	108°13'47.799"E25°0'30.196"N	108°13'43.645"E25°0'24.731"N	108°13'39.999"E25°0'28.830"N	108°13'43.223"E25°0'32.513"N
1187	Luoyang	Jiangkou	0700	0050	108°13'6.112"E25°1'19.503"N	108°13'1.513"E25°1'6.564"N	108°12'58.885"E25°1'12.979"N	108°13'5.219"E25°1'19.619"N
1188	Luoyang	Jiangkou	0800	0002	108°12'19.324"E25°1'35.808"N	108°11'55.869"E25°1'30.033"N	108°11'50.983"E25°1'31.998"N	108°12'10.825"E25°1'36.628"N
1189	Luoyang	Jiangkou	0800	0038	108°12'28.142"E25°0'49.769"N	108°12'14.937"E25°0'47.679"N	108°12'11.659"E25°0'50.974"N	108°12'27.119"E25°0'52.639"N
1190	Luoyang	Jiangkou	0900	0014	108°12'42.742"E25°2'3.071"N	108°12'31.615"E25°1'59.514"N	108°12'31.187"E25°2'2.311"N	108°12'39.059"E25°2'9.054"N
1191	Luoyang	Luoyang	0100	0026	108°10'56.502"E24°58'57.988"N	108°10'49.380"E24°58'45.899"N	108°10'42.634"E24°58'49.452"N	108°10'55.456"E24°58'58.789"N
1192	Luoyang	Luoyang	0300	0022	108°13'58.736"E24°59'1.908"N	108°13'48.965"E24°58'53.347"N	108°13'37.012"E24°59'3.898"N	108°13'39.745"E24°59'5.329"N
1193	Luoyang	Yuhe	0200	0004	108°15'25.327"E25°4'43.648"N	108°15'20.989"E25°4'40.194"N	108°15'19.129"E25°4'53.234"N	108°15'23.121"E25°4'59.650"N
1194	Luoyang	Yuhe	0300	0064	108°15'7.413"E25°4'1.333"N	108°15'6.527"E25°3'58.340"N	108°15'1.709"E25°4'9.926"N	108°15'1.712"E25°4'10.301"N
1195	Luoyang	Yuhe	0400	0014	108°16'15.613"E25°4'27.141"N	108°16'12.008"E25°4'20.458"N	108°16'5.250"E25°4'25.978"N	108°16'15.260"E25°4'29.910"N
1196	Luoyang	Yuhe	0400	0020	108°15'48.658"E25°4'15.751"N	108°15'46.178"E25°4'14.874"N	108°15'39.221"E25°4'24.381"N	108°15'40.801"E25°4'25.353"N
1197	Luoyang	Yuhe	0600	0094	108°14'58.831"E25°3'5.909"N	108°14'55.417"E25°3'3.263"N	108°14'49.961"E25°3'4.818"N	108°14'57.487"E25°3'9.159"N
1198	Luoyang	Yuhe	0700	0008	108°14'14.412"E25°3'43.982"N	108°14'9.513"E25°3'33.097"N	108°14'5.530"E25°3'34.270"N	108°14'13.634"E25°3'44.268"N
1199	Luoyang	Yuhe	0700	0027	108°14'1.594"E25°3'29.863"N	108°13'56.302"E25°3'24.399"N	108°13'51.083"E25°3'27.654"N	108°13'57.131"E25°3'33.995"N
1200	Luoyang	Yuhe	0700	0029	108°14'29.292"E25°3'32.716"N	108°14'26.649"E25°3'19.090"N	108°14'24.845"E25°3'20.668"N	108°14'28.727"E25°3'33.730"N
1201	Luoyang	Yuhe	0800	0010	108°13'26.835"E25°4'1.275"N	108°13'23.812"E25°3'56.020"N	108°13'18.873"E25°4'1.561"N	108°13'19.532"E25°4'3.560"N
1202	Changmei	Guan'an	0400	0004	108°25'36.995"E24°57'57.937"N	108°25'35.691"E24°57'52.393"N	108°25'28.590"E24°57'54.280"N	108°25'33.284"E24°58'4.323"N
1203	Changmei	Neidian	0400	0032	108°25'23.176"E24°54'29.569"N	108°25'15.438"E24°54'26.350"N	108°25'15.240"E24°54'26.912"N	108°25'22.508"E24°54'31.266"N
1204	Changmei	Neidian	1000	0033	108°25'25.821"E24°52'53.470"N	108°25'22.681"E24°52'43.845"N	108°25'16.808"E24°52'53.633"N	108°25'18.653"E24°52'55.869"N
1205	Changmei	Neidian	1300	0013	108°25'25.540"E24°52'36.913"N	108°25'17.761"E24°52'33.975"N	108°25'14.173"E24°52'36.523"N	108°25'19.833"E24°52'42.104"N
1206	Changmei	Neitong	0100	0036	108°27'22.023"E25°1'37.699"N	108°27'18.064"E25°1'32.556"N	108°27'15.979"E25°1'33.689"N	108°27'18.066"E25°1'40.082"N
1207	Changmei	Neitong	1300	0001	108°36'25.378"E25°0'39.393"N	108°36'22.999"E25°0'34.054"N	108°36'16.496"E25°0'35.885"N	108°36'19.698"E25°0'40.327"N
1208	Changmei	Neitong	1400	0016	108°34'13.717"E25°0'6.957"N	108°34'7.705"E24°59'56.025"N	108°34'2.510"E25°0'4.133"N	108°34'13.717"E25°0'6.957"N
1209	Changmei	Neitong	1500	0033	108°31'41.488"E25°0'29.540"N	108°31'35.060"E25°0'24.145"N	108°31'32.470"E25°0'33.417"N	108°31'37.557"E25°0'36.276"N

1210	Changmei	Neitong	2300	0015	108°29'22.003"E25°0'41.731"N	108°29'17.485"E25°0'39.923"N	108°29'7.488"E25°0'45.938"N	108°29'13.277"E25°0'49.998"N
1211	Changmei	Neitong	2500	0042	108°28'22.697"E24°59'29.454"N	108°28'15.917"E24°59'24.166"N	108°28'10.843"E24°59'32.058"N	108°28'17.469"E24°59'36.356"N
1212	Changmei	Neitong	2700	0011	108°26'53.236"E24°59'41.983"N	108°26'49.786"E24°59'39.610"N	108°26'44.571"E24°59'48.893"N	108°26'47.651"E24°59'51.615"N
1213	Changmei	Changmei	0200	0012	108°26'37.061"E24°57'53.271"N	108°26'35.545"E24°57'48.520"N	108°26'25.899"E24°57'59.924"N	108°26'30.459"E24°58'4.317"N
1214	Changmei	Changmei	0400	0038	108°28'11.038"E24°58'28.525"N	108°28'4.304"E24°58'19.356"N	108°28'0.454"E24°58'19.776"N	108°28'11.001"E24°58'30.965"N
1215	Changmei	Changmei	2200	0017	108°30'12.985"E24°55'44.672"N	108°30'9.878"E24°55'42.925"N	108°29'56.723"E24°55'48.722"N	108°30'0.709"E24°55'49.552"N
1216	Changmei	Changmei	2800	0054	108°26'6.458"E24°55'16.062"N	108°26'3.984"E24°55'13.675"N	108°25'55.741"E24°55'18.494"N	108°26'4.335"E24°55'25.895"N
1217	Xunle	Quan'an	0800	0021	108°20'5.975"E25°23'15.645"N	108°20'0.286"E25°23'8.322"N	108°19'52.561"E25°23'12.892"N	108°20'2.351"E25°23'17.801"N
1218	Xunle	Quan'an	0800	0037	108°19'56.531"E25°22'58.318"N	108°19'49.327"E25°22'55.091"N	108°19'47.505"E25°23'4.808"N	108°19'53.114"E25°23'6.838"N
1219	Xunle	Quan'an	1200	0036	108°16'46.444"E25°22'17.351"N	108°16'45.600"E25°22'14.136"N	108°16'38.375"E25°22'16.586"N	108°16'41.754"E25°22'21.640"N
1220	Xunle	Quan'an	1300	0051	108°16'45.521"E25°21'30.824"N	108°16'23.221"E25°21'12.326"N	108°16'19.651"E25°21'19.255"N	108°16'33.499"E25°21'31.112"N
1221	Xunle	Quan'an	1300	0052	108°16'14.117"E25°21'26.072"N	108°16'7.324"E25°21'22.949"N	108°16'1.794"E25°21'28.343"N	108°16'5.376"E25°21'30.924"N
1222	Xunle	Quan'an	1500	0104	108°19'9.934"E25°21'0.603"N	108°19'5.567"E25°20'59.484"N	108°18'57.660"E25°21'5.944"N	108°19'0.586"E25°21'16.156"N
1223	Xunle	Quan'an	1600	0016	108°20'10.228"E25°21'36.471"N	108°20'1.025"E25°21'33.621"N	108°19'54.340"E25°21'38.542"N	108°20'5.390"E25°21'41.924"N
1224	Xunle	Quan'an	2100	0048	108°17'59.933"E25°20'27.478"N	108°17'53.219"E25°20'18.863"N	108°17'51.153"E25°20'30.841"N	108°17'58.311"E25°20'35.562"N
1225	Xunle	Taiping	0700	0062	108°21'2.882"E25°16'45.809"N	108°21'2.763"E25°16'45.390"N	108°20'51.215"E25°16'48.999"N	108°20'57.749"E25°16'52.097"N
1226	Xunle	Taiping	0800	0016	108°20'7.959"E25°17'13.694"N	108°19'57.224"E25°17'10.039"N	108°19'42.375"E25°17'22.035"N	108°19'44.611"E25°17'26.761"N
1227	Xunle	Shangang	0100	0018	108°19'3.508"E25°31'43.513"N	108°18'51.132"E25°31'37.221"N	108°18'49.764"E25°31'38.153"N	108°19'2.588"E25°31'44.518"N
1228	Xunle	Shangang	1800	0065	108°18'5.918"E25°29'29.115"N	108°18'5.050"E25°29'24.122"N	108°17'54.724"E25°29'30.862"N	108°17'57.207"E25°29'32.896"N
1229	Xunle	Shangang	1900	0039	108°17'21.423"E25°28'43.511"N	108°17'16.537"E25°28'38.041"N	108°17'11.192"E25°28'41.035"N	108°17'17.651"E25°28'47.262"N
1230	Xunle	Shangang	2000	0021	108°18'28.185"E25°28'43.118"N	108°18'25.212"E25°28'38.348"N	108°18'17.089"E25°28'39.066"N	108°18'24.656"E25°28'44.247"N
1231	Xunle	Shangang	2700	0021	108°22'33.536"E25°28'51.596"N	108°22'26.836"E25°28'45.464"N	108°22'24.901"E25°28'49.667"N	108°22'31.318"E25°28'53.380"N
1232	Xunle	Shangang	2700	0031	108°23'28.592"E25°28'46.817"N	108°23'20.042"E25°28'39.589"N	108°23'17.051"E25°28'42.855"N	108°23'27.234"E25°28'48.175"N
1233	Xunle	Shangang	2900	0022	108°23'39.194"E25°28'19.352"N	108°23'35.967"E25°28'17.418"N	108°23'30.148"E25°28'21.491"N	108°23'35.925"E25°28'27.209"N
1234	Xunle	Pingmo	0100	0024	108°16'48.027"E25°20'52.185"N	108°16'41.148"E25°20'43.487"N	108°16'27.856"E25°20'54.497"N	108°16'28.613"E25°20'56.740"N
1235	Xunle	Pingmo	0100	0041	108°16'55.158"E25°20'43.216"N	108°16'45.233"E25°20'32.741"N	108°16'41.780"E25°20'43.591"N	108°16'47.289"E25°20'46.776"N
1236	Xunle	Pingmo	0500	0099	108°18'59.857"E25°17'54.283"N	108°18'56.284"E25°17'48.937"N	108°18'47.282"E25°17'54.040"N	108°18'58.351"E25°17'56.007"N

1237	Xunle	Pingmo	0600	0065	108°18'20.730"E25°18'56.336"N	108°18'14.205"E25°18'44.686"N	108°18'5.127"E25°18'46.721"N	108°18'20.196"E25°18'57.375"N
1238	Xunle	Pingmo	0700	0007	108°16'59.080"E25°19'41.979"N	108°16'51.626"E25°19'37.971"N	108°16'45.347"E25°19'45.185"N	108°16'51.323"E25°19'46.240"N
1239	Xunle	Pingmo	0700	0021	108°16'52.226"E25°19'36.607"N	108°16'43.665"E25°19'19.877"N	108°16'39.567"E25°19'23.358"N	108°16'46.205"E25°19'38.444"N
1240	Xunle	Pingmo	1500	0034	108°16'34.554"E25°17'13.563"N	108°16'16.247"E25°17'9.747"N	108°16'15.524"E25°17'10.773"N	108°16'29.280"E25°17'19.295"N
1241	Xunle	Pingzhi	0900	0045	108°11'46.681"E25°21'4.726"N	108°11'39.198"E25°20'52.755"N	108°11'29.858"E25°21'16.318"N	108°11'29.858"E25°21'16.318"N
1242	Xunle	Pingzhi	1600	0072	108°10'36.932"E25°19'32.840"N	108°10'30.851"E25°19'27.117"N	108°10'26.024"E25°19'28.644"N	108°10'32.146"E25°19'34.294"N
1243	Xunle	Pingzhi	2400	0011	108°14'37.616"E25°17'11.336"N	108°14'35.069"E25°17'3.526"N	108°14'26.670"E25°17'8.123"N	108°14'34.786"E25°17'13.717"N
1244	Xunle	Kangning	0700	0026	108°12'54.954"E25°26'5.650"N	108°12'43.476"E25°25'56.123"N	108°12'41.981"E25°25'56.727"N	108°12'50.893"E25°26'6.660"N
1245	Xunle	Fushou	0500	0051	108°17'46.308"E25°23'36.866"N	108°17'38.258"E25°23'29.657"N	108°17'37.546"E25°23'32.446"N	108°17'43.967"E25°23'37.701"N
1246	Xunle	Fushou	0600	0004	108°16'58.030"E25°24'25.576"N	108°16'46.736"E25°24'11.256"N	108°16'43.928"E25°24'16.962"N	108°16'49.860"E25°24'31.755"N
1247	Xunle	Fushou	0600	0089	108°16'56.885"E25°23'29.141"N	108°16'51.257"E25°23'22.599"N	108°16'51.257"E25°23'22.599"N	108°16'55.564"E25°23'32.418"N
1248	Xunle	Fushou	1100	0032	108°14'3.123"E25°23'0.005"N	108°14'0.235"E25°22'56.923"N	108°13'43.380"E25°23'0.467"N	108°14'0.305"E25°23'5.728"N
1249	Xunle	Fushou	1500	0036	108°16'43.489"E25°22'30.611"N	108°16'38.915"E25°22'21.240"N	108°16'32.795"E25°22'24.930"N	108°16'43.489"E25°22'30.611"N
1250	Xunle	Zhenbei	0200	0064	108°15'54.916"E25°28'11.087"N	108°15'40.877"E25°28'1.742"N	108°15'36.070"E25°28'3.934"N	108°15'46.366"E25°28'14.834"N
1251	Xunle	Zhenbei	0300	0045	108°15'44.023"E25°27'24.422"N	108°15'39.576"E25°27'17.007"N	108°15'34.915"E25°27'25.115"N	108°15'40.568"E25°27'26.865"N
1252	Xunle	Zhenbei	0500	0016	108°14'29.335"E25°27'39.301"N	108°14'20.046"E25°27'29.610"N	108°14'14.725"E25°27'33.047"N	108°14'27.692"E25°27'41.924"N
1253	Xunle	Zhenbei	0700	0001	108°16'22.604"E25°27'58.814"N	108°16'22.583"E25°27'58.140"N	108°15'58.165"E25°28'11.377"N	108°16'13.989"E25°28'16.381"N
1254	Xunle	Zhenbei	1000	0004	108°16'55.128"E25°27'9.572"N	108°16'37.116"E25°27'6.619"N	108°16'32.133"E25°27'15.153"N	108°16'46.068"E25°27'22.897"N
1255	Xunle	Zhenbei	1300	0008	108°16'25.963"E25°26'4.703"N	108°15'58.747"E25°25'40.972"N	108°15'44.089"E25°26'3.024"N	108°16'24.469"E25°26'28.701"N
1256	Xunle	Zhenbei	1400	0047	108°15'39.643"E25°26'1.203"N	108°15'29.198"E25°25'56.183"N	108°15'25.341"E25°26'0.067"N	108°15'38.145"E25°26'2.853"N
1257	Xunle	Changbei	0300	0042	108°17'59.625"E25°27'18.038"N	108°17'52.076"E25°27'3.570"N	108°17'35.776"E25°27'8.281"N	108°17'53.993"E25°27'19.768"N
1258	Xunle	Changbei	0300	0084	108°17'48.716"E25°26'41.221"N	108°17'48.237"E25°26'40.589"N	108°17'29.790"E25°26'51.775"N	108°17'30.427"E25°26'53.149"N
1259	Xunle	Changbei	0600	0004	108°20'35.401"E25°27'18.878"N	108°20'26.147"E25°27'8.623"N	108°20'22.627"E25°27'16.463"N	108°20'30.121"E25°27'21.112"N
1260	Xunle	Changbei	0900	0021	108°22'16.947"E25°26'6.608"N	108°22'13.056"E25°26'4.183"N	108°22'8.236"E25°26'8.118"N	108°22'11.628"E25°26'22.340"N
1261	Xunle	Changbei	0900	0029	108°22'36.691"E25°25'52.806"N	108°22'34.386"E25°25'51.355"N	108°22'19.251"E25°26'12.686"N	108°22'19.962"E25°26'14.747"N
1262	Xunle	Changbei	1600	0017	108°17'6.790"E25°25'44.326"N	108°17'6.076"E25°25'41.722"N	108°16'48.126"E25°25'45.916"N	108°16'56.981"E25°25'54.320"N
1263	Xunle	Shunning	0400	0025	108°13'10.593"E25°24'49.647"N	108°13'4.173"E25°24'46.508"N	108°13'0.317"E25°24'54.219"N	108°13'5.861"E25°24'55.213"N

1264	Longyan	Jiule	1200	0007	108°27'34.315"E25°17'6.752"N	108°27'25.445"E25°17'2.887"N	108°27'14.085"E25°17'4.486"N	108°27'23.047"E25°17'13.667"N
1265	Longyan	Jiuwei	0900	0065	108°24'55.437"E25°19'41.984"N	108°24'39.727"E25°19'25.637"N	108°24'34.541"E25°19'29.088"N	108°24'46.964"E25°19'53.223"N
1266	Longyan	Anshan	0400	0121	108°31'2.470"E25°15'50.541"N	108°30'56.826"E25°15'42.717"N	108°30'53.438"E25°15'53.105"N	108°30'55.098"E25°15'53.898"N
1267	Longyan	Guangrong	0400	0066	108°27'41.868"E25°22'19.117"N	108°27'34.908"E25°22'12.356"N	108°27'24.708"E25°22'22.911"N	108°27'32.692"E25°22'25.933"N
1268	Longyan	Ganyan	0500	0002	108°29'39.917"E25°24'29.241"N	108°29'33.085"E25°24'22.696"N	108°29'25.469"E25°24'28.228"N	108°29'37.747"E25°24'32.969"N
1269	Longyan	Ganyan	0500	0006	108°29'44.302"E25°24'22.094"N	108°29'39.052"E25°24'16.540"N	108°29'36.161"E25°24'18.409"N	108°29'42.290"E25°24'28.771"N
1270	Longyan	Ganyan	0500	0042	108°29'48.129"E25°24'5.720"N	108°29'43.369"E25°24'2.892"N	108°29'36.816"E25°24'9.839"N	108°29'38.641"E25°24'11.941"N
1271	Longyan	Ganyan	0500	0106	108°29'47.165"E25°23'44.397"N	108°29'40.391"E25°23'37.933"N	108°29'39.109"E25°23'38.056"N	108°29'42.371"E25°23'49.657"N
1272	Longyan	Ganyan	0600	0061	108°28'40.222"E25°24'3.007"N	108°28'26.277"E25°23'56.137"N	108°28'25.582"E25°23'57.346"N	108°28'40.122"E25°24'4.035"N
1273	Longyan	Ganyan	1300	0021	108°28'58.932"E25°22'56.175"N	108°28'55.830"E25°22'51.910"N	108°28'48.996"E25°22'58.426"N	108°28'51.398"E25°23'0.741"N
1274	Longyan	Ganyan	1500	0005	108°27'48.575"E25°23'32.226"N	108°27'40.939"E25°23'21.856"N	108°27'33.985"E25°23'25.746"N	108°27'43.625"E25°23'33.099"N
1275	Longyan	Chaoge	0200	0004	108°32'30.366"E25°24'9.775"N	108°32'29.141"E25°24'8.797"N	108°32'17.951"E25°24'15.744"N	108°32'20.978"E25°24'16.567"N
1276	Longyan	Chaoge	0400	0085	108°32'36.463"E25°23'23.388"N	108°32'32.784"E25°23'21.676"N	108°32'25.128"E25°23'23.080"N	108°32'30.278"E25°23'29.708"N
1277	Longyan	Chaoge	0600	0003	108°31'31.474"E25°23'35.763"N	108°31'29.508"E25°23'31.713"N	108°31'18.994"E25°23'35.236"N	108°31'24.796"E25°23'37.316"N
1278	Longyan	Chaoge	1200	0036	108°32'10.594"E25°22'3.254"N	108°32'2.165"E25°21'48.407"N	108°32'0.133"E25°21'55.011"N	108°32'7.190"E25°22'5.465"N
1279	Longyan	Chaoge	1300	0063	108°31'37.196"E25°22'23.501"N	108°31'35.284"E25°22'19.375"N	108°31'25.016"E25°22'24.380"N	108°31'29.314"E25°22'25.042"N
1280	Longyan	Chaoge	1400	0108	108°30'38.127"E25°21'41.949"N	108°30'37.527"E25°21'37.923"N	108°30'29.963"E25°21'38.899"N	108°30'36.767"E25°21'42.880"N
1281	Longyan	Chaoge	1800	0012	108°33'8.798"E25°21'18.162"N	108°32'47.482"E25°21'12.118"N	108°32'45.629"E25°21'16.499"N	108°32'50.528"E25°21'37.992"N
1282	Longyan	Chaoge	1800	0152	108°33'21.144"E25°20'54.338"N	108°33'17.925"E25°20'52.003"N	108°33'8.637"E25°20'58.470"N	108°33'16.042"E25°21'1.190"N
1283	Longyan	Chaoge	2600	0004	108°31'17.342"E25°20'22.222"N	108°31'13.224"E25°20'19.953"N	108°30'59.798"E25°20'26.497"N	108°31'5.727"E25°20'29.554"N
1284	Longyan	Chaoge	2800	0022	108°32'50.522"E25°20'4.287"N	108°32'45.384"E25°19'57.480"N	108°32'43.965"E25°19'59.070"N	108°32'47.107"E25°20'12.926"N
1285	Longyan	Chaoge	2800	0191	108°32'52.841"E25°19'18.758"N	108°32'51.326"E25°19'14.511"N	108°32'46.604"E25°19'24.338"N	108°32'47.846"E25°19'31.378"N
1286	Longyan	Kenlan	0800	0044	108°30'45.723"E25°18'20.630"N	108°30'38.196"E25°18'15.297"N	108°30'16.836"E25°18'27.011"N	108°30'25.181"E25°18'36.878"N
1287	Longyan	Dake	0400	0001	108°34'57.579"E25°19'6.242"N	108°34'56.475"E25°19'1.500"N	108°34'45.853"E25°19'7.337"N	108°34'48.969"E25°19'8.017"N
1288	Longyan	Dake	0400	0011	108°35'21.494"E25°18'52.567"N	108°35'9.903"E25°18'50.890"N	108°35'9.414"E25°18'52.504"N	108°35'9.573"E25°18'59.606"N
1289	Longyan	Dake	0700	0019	108°33'11.498"E25°18'9.053"N	108°33'3.817"E25°18'1.640"N	108°32'59.385"E25°18'8.958"N	108°33'8.244"E25°18'12.338"N
1290	Longyan	Dake	0900	0121	108°34'28.379"E25°18'0.037"N	108°34'21.257"E25°17'48.401"N	108°34'18.694"E25°17'52.148"N	108°34'27.274"E25°18'2.412"N

1291	Longyan	Dake	1500	0101	108°33'5.280"E25°17'4.249"N	108°32'59.641"E25°16'59.339"N	108°32'52.472"E25°17'5.836"N	108°33'0.759"E25°17'11.680"N
1292	Longyan	Dake	2100	0046	108°31'45.799"E25°17'10.563"N	108°31'37.501"E25°17'0.367"N	108°31'36.800"E25°17'1.148"N	108°31'44.300"E25°17'15.439"N
1293	Longyan	Dake	2200	0017	108°33'14.887"E25°16'52.102"N	108°33'6.019"E25°16'45.762"N	108°33'5.051"E25°16'51.143"N	108°33'10.489"E25°16'56.657"N
1294	Longyan	Huangzhong	0500	0022	108°22'34.201"E25°26'38.956"N	108°22'26.953"E25°26'34.555"N	108°22'24.871"E25°26'38.983"N	108°22'33.508"E25°26'39.815"N
1295	Longyan	Huangzhong	1400	0056	108°25'45.053"E25°25'37.203"N	108°25'42.756"E25°25'31.972"N	108°25'37.725"E25°25'36.312"N	108°25'43.155"E25°25'39.991"N
1296	Longyan	Longyan	0200	0067	108°30'14.964"E25°17'30.877"N	108°30'4.843"E25°17'26.262"N	108°30'3.947"E25°17'26.348"N	108°30'5.596"E25°17'37.135"N
1297	Si'en	Zhongxing	0100	0071	108°12'40.470"E24°52'29.293"N	108°12'32.835"E24°52'26.847"N	108°12'25.859"E24°52'28.792"N	108°12'30.851"E24°52'40.238"N
1298	Si'en	Zhongxing	0300	0066	108°11'55.734"E24°51'35.135"N	108°11'53.641"E24°51'34.697"N	108°11'39.157"E24°51'43.993"N	108°11'43.945"E24°51'46.044"N
1299	Si'en	Zhongshan	0800	0005	108°15'29.864"E24°53'36.172"N	108°15'26.014"E24°53'28.394"N	108°15'22.501"E24°53'32.004"N	108°15'23.607"E24°53'43.081"N
1300	Chuanshan	Wuwei	0100	0075	108°6'45.528"E25°7'28.133"N	108°6'40.634"E25°7'22.169"N	108°6'37.531"E25°7'25.849"N	108°6'42.800"E25°7'31.999"N
1301	Chuanshan	Hedun	0900	0112	108°6'23.613"E25°9'13.786"N	108°6'20.464"E25°9'10.585"N	108°6'12.584"E25°9'14.757"N	108°6'18.704"E25°9'18.457"N
1302	Chuanshan	Hedun	1800	0014	108°8'46.948"E25°9'26.974"N	108°8'42.144"E25°9'23.189"N	108°8'36.227"E25°9'32.909"N	108°8'37.091"E25°9'35.316"N
1303	Chuanshan	Hedun	1800	0042	108°8'5.435"E25°9'17.791"N	108°8'0.216"E25°9'15.522"N	108°7'56.275"E25°9'22.078"N	108°7'58.071"E25°9'23.220"N
1304	Minglun	Cuishan	0200	0024	108°22'39.243"E25°19'21.158"N	108°22'26.476"E25°19'20.239"N	108°22'21.869"E25°19'22.273"N	108°22'31.215"E25°19'27.152"N
1305	Minglun	Longshui	1100	0033	108°18'55.377"E25°13'34.005"N	108°18'50.258"E25°13'29.913"N	108°18'45.784"E25°13'32.916"N	108°18'48.384"E25°13'35.650"N
1306	Changmei	Neitong	2500	0036	108°28'26.212"E24°59'36.102"N	108°28'20.158"E24°59'30.287"N	108°28'13.609"E24°59'36.317"N	108°28'18.271"E24°59'38.105"N