CLEAN DEVELOPMENT MECHANISM
PROJECT DESIGN DOCUMENT FORM FOR SMALL-SCALE AFFORESTATION AND REFORESTATION PROJECT ACTIVITIES (CDM-SSC-AR-PDD)
(Version 02)

CONTENTS

SECTION A. General description of the proposed small-scale A/R CDM project activity:

A.1. Title of the proposed small-scale A/R CDM project activity:

Carbon sequestrate Afforestation project in Sanmenxia, Henan Province, China

Version 1.0

Date: 29 October, 2010

A.2. Description of the proposed small-scale A/R CDM project activity:

Henan Lingbao Tiandi technology Corporation (Tiandi) was established at 1994 and mainly works for the development of ecological forestation. Since then, Tiandi has strived its efforts on carbon sequestration and high-quality afforestation projects. Tiandi has collected more than 40 excellent tree species and planted about 2000 hectares' artificial ecological forest until now, they have established and developed carbon sequestration and forestry research programs with famous institute such as China-Japan Ecommia Research Institute, Chinese Academic of Forestry and Northwest A&F University. Tiandi's ecological forest was honored by State Administration of Forestry as "Ecological Protection Forestation Project in upper Yellow River".

The proposed SSC-A/R CDM project activity held by Tiandi, *Carbon sequestrate Afforestation in Sanmenxia, Henan, China*, is to be located on Fu Niu Mountain area, Henan Province. This area has a great many mountains and very few plains; the approximate elevation is 700 to 1500 meters. The project objective is to set up 1700 hectares forest on degraded grassland within three years. The districts involved are two cities/counties and three towns/countries, Duguan town in Lushi County, Wumu Country and Zhuyang Town in Lingbao City. The purpose of project participant to establish this project is to develop credible carbon sequestration, improve soil erosion and enhance the natural environment in the project area.

The species to be planted are *Pinus Sinensis* (170 hectares) and *Eucommia ulmoides Oliv* (1530 hectares). *Pinus Sinensis* is native to China and widely spread over many regions in China. *Eucommia ulmoides Oliv* is usually located around 104-109E and 25-35N in China, including Sichuan Province, Guizhou Province and Henan Province; the selected specie, Lingbao Eucommia was regarded as "State Geography Key Protection Product" in year 2006 by State Administration of Forestry. The project activity will be carried out on degraded grassland dominated by grasses and shrubs, the project area are mostly hill regions and the district involved are all traditional poor and low-income regions. It is expected that creating a high-quality afforestation project on these lands would contribute to sustainable development for local people in the following aspects:

(1) The project activity will increase forest cover rate within the project area, acquiring credible emission reductions for green house gas and improve atmosphere environment, promote sustainable development of ecological environment.
(2) The high-quality afforestation will result in high survival rate of the plants, moreover transform degraded grassland into forest land within several years. As a more stable ecology system, forest can serve the purpose of improve soil reduce, protect water source and eliminate contamination.
(3) The plantation areas are located in the west part of north slope of Fu Niu Mountain, because of the varied topography conditions, the plantation and gathering are mainly depend on manual work,

which would provide many new jobs to local low income populations and improve sustainable development of local communities.

(4) The high-quality afforestation requires well trained labors; technicians will provide training courses to local peasants therefore improve their professional skills and industry knowledge, enhance population quality for the long-term development.

(5) The high-quality afforestation meet the common value of sustainable development of forest industry, by providing good forest products, the project activity may led intensive processing of forest products as well.

Figure A.2 Photography of the project site

A.3. Project participants:

Name of Party involved (*) ((host) indicates a host Party)	Private and/or public entity(ies) project participants (*) (as applicable)	Indicate if the Party involved wishes to be considered as a project participant (Yes/No)
China (host country)	● Private entity：Henan Lingbao Tiandi technology Corporation	Yes
Japan	● HITACHI ZOSEN Corporation	No
(*) At the time of making the CDM-SSC-AR-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required.		

A.4. Description of location and boundary of the small-scale A/R CDM project activity:

A.4.1. Location of the proposed small-scale A/R CDM project activity:

A.4.1.1. Host **Party (ies):**

China.

A.4.1.2. Region/**State/Province etc.:**

Henan.

A.4.1.3. City/Town/Community etc:

The project sites are located in two different City/County in Sanmenxia, Henan Province, namely Lingbao City and Lushi County respectively.

A.4.2. Detail of geographical location and project boundary, including information allowing the unique identification(s) of the proposed small-scale A/R CDM project activity:

The proposed SSC-A/R CDM project activity will be applied at Sanmenxia district in Henan Province; two cities/counties, three counties/towns are involved, the total area of the project is 1700 hectares. The detail information of the involved districts is shown in Table1 below:

Table1: District involved and location of the project

District Number	County/City	Country/Town	Land Evaluation	Geography Coordinate	Area (ha)
1	Lingbao	Zhuyang	Degraded grassland	34°23′21″～34°23′21″N 110°43′20″～110°45′E	240
2	Lingbao	Wumu	Degraded grassland	34°24′49″～34°26′24″N 110°43′59″～110°46′18″E	493.3
3	Lushi	Duguan	Degraded grassland	34°16′11″～34°19′54″N 110°51′3″～110°52′47″E	966.7

The project boundaries and geographical locations are indicated in figures below, the specific geographical positions at each corner of the sites are shown in Appendix1.

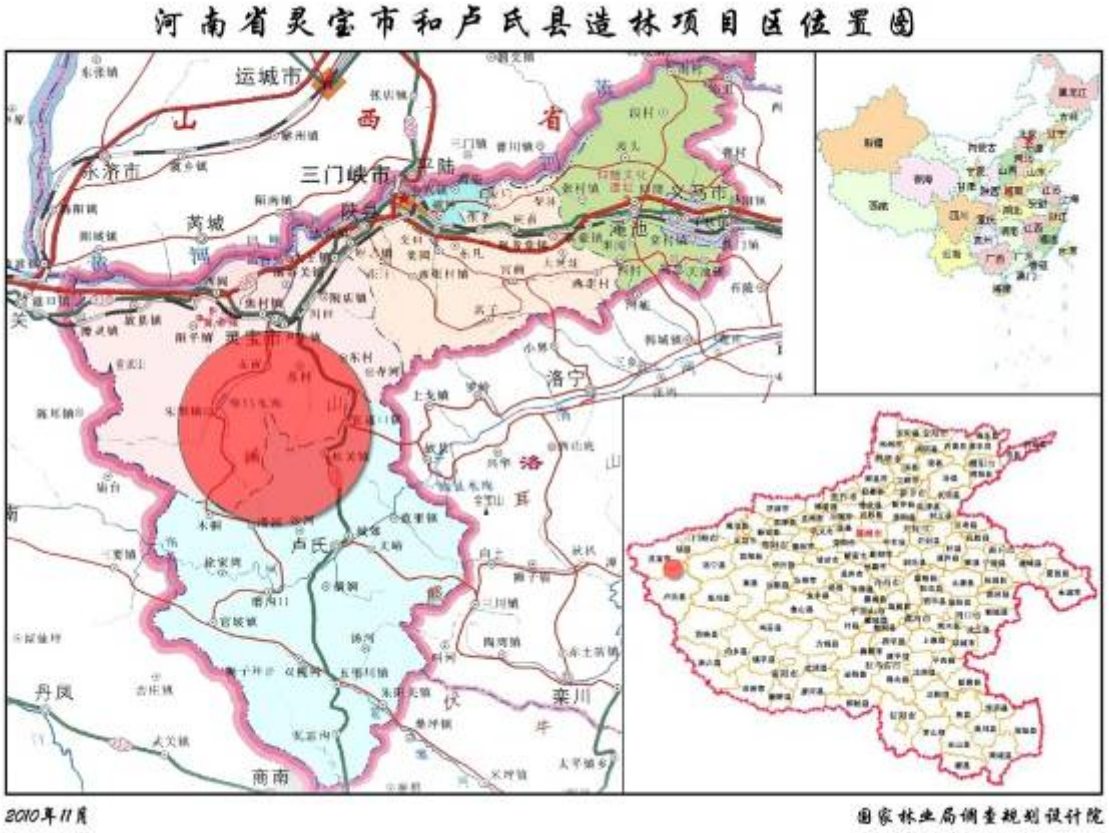

Figure A.4.2.1 Map of China and Henan Province showing location of Lingbao City and Lushi County

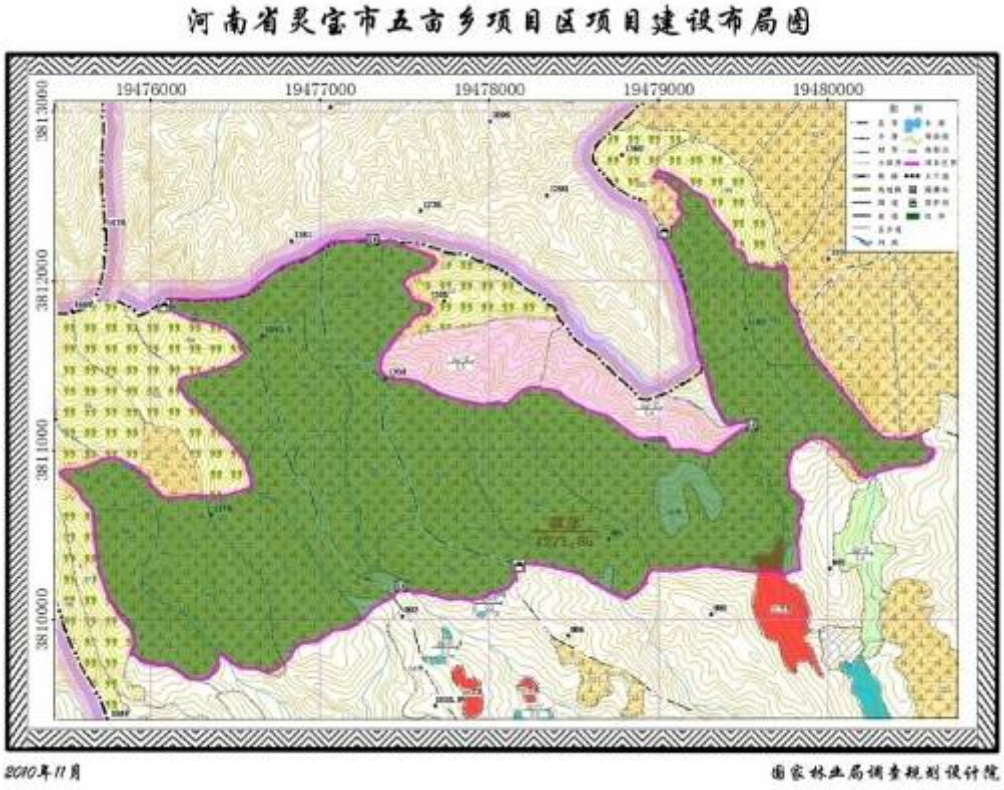

Figure A.4.2.2 Land to be planted in Wumu Country, Lingbao City

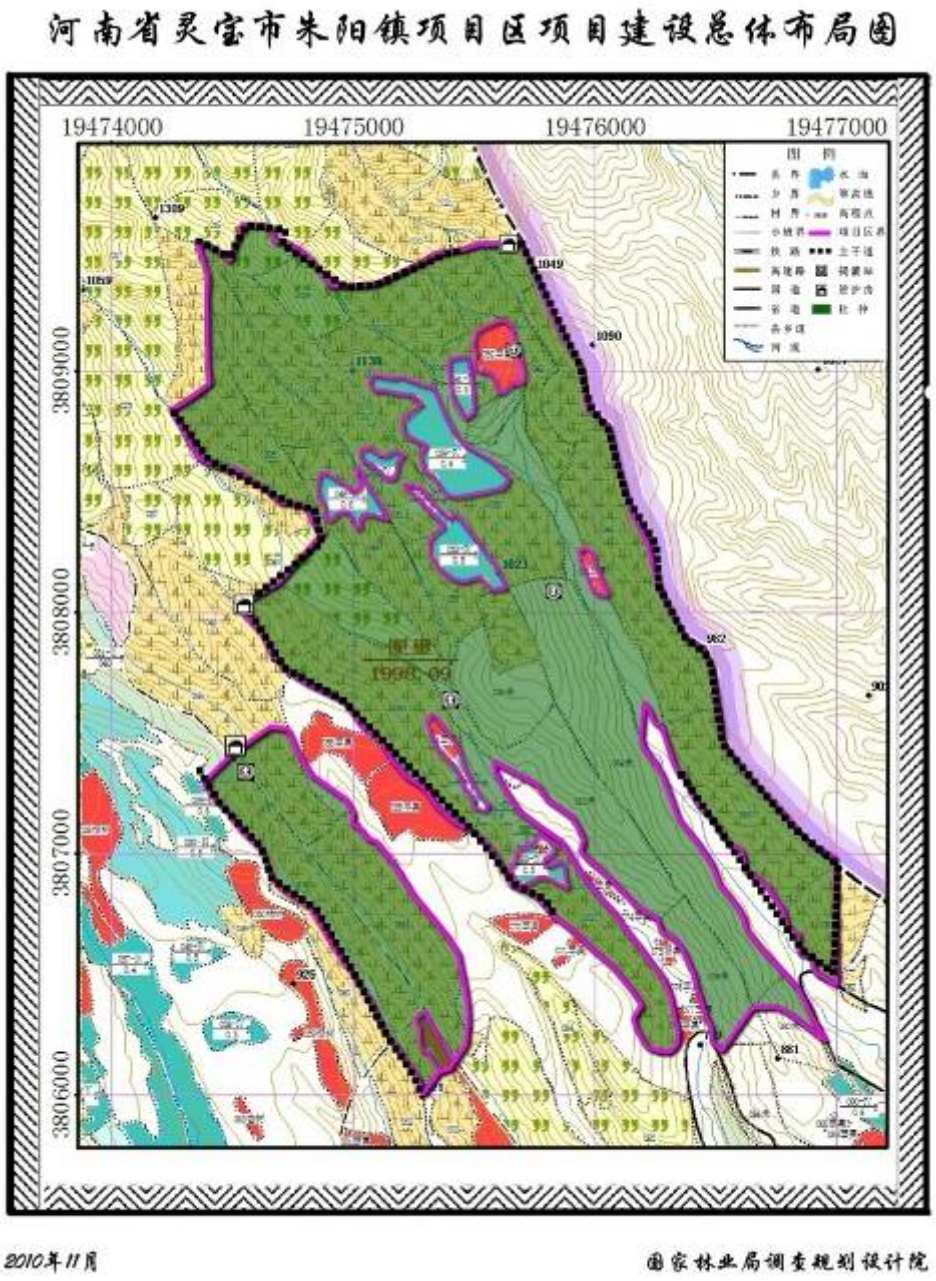

Figure A.4.2.3 Land to be planted in Zhuyang town, Lingbao City

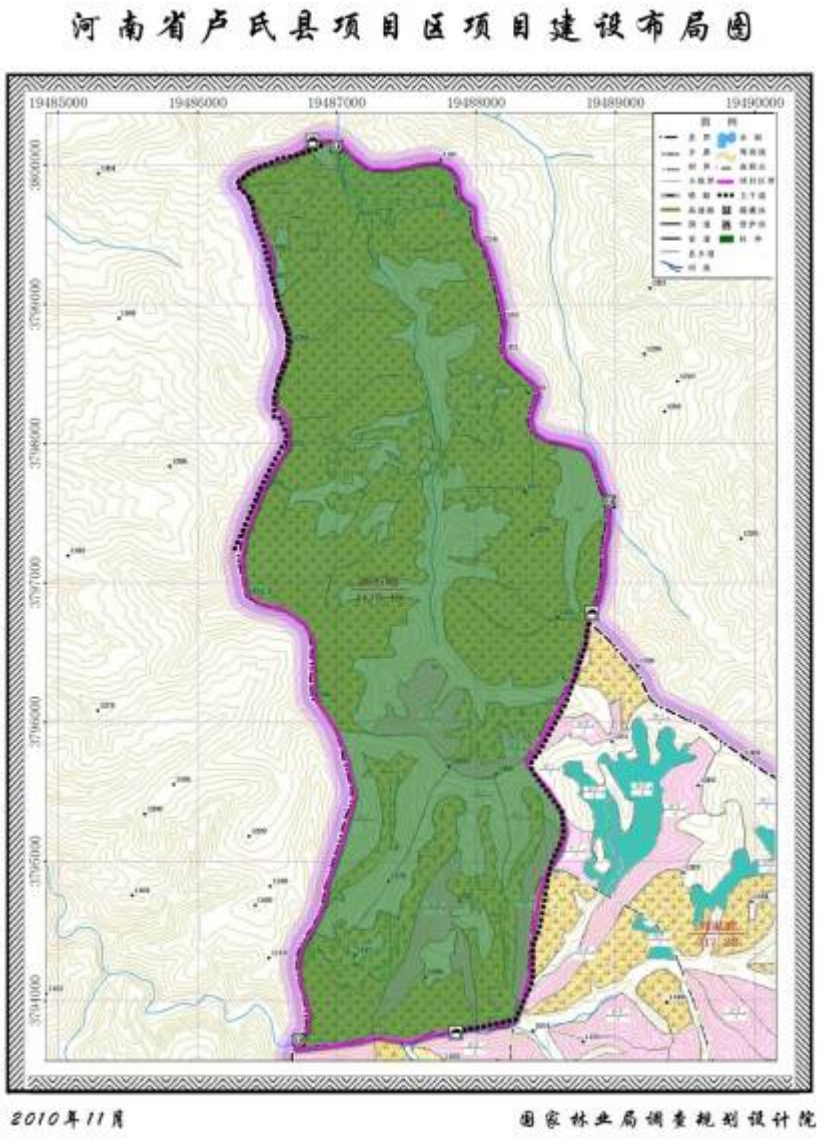

Figure A.4.2.4 Land to be planted in Lushi County

A.5. Technical description of the small-scale A/R CDM project activity:

A.5.1. Type(s) of small-scale A/R CDM project activity:

Reforestation on degraded cropland and grassland.

A.5.2. A concise description of present environmental conditions of the area, which include information on climate, soils, main watershed, ecosystems, and the possible presence of rare or endangered species and their habitats:

Sanmenxia district is located in the middle part of China, which has a far distant from sea. This region is mountainous and most parts including Lingbao City and Lushi County has a temperate zone continental monsoon climate feature. The environmental conditions of Lingbao City and Lushi County are described respective below:

1) Geography

Lingbao City is located near the junction of Henan Province, Shanxi Province and Shaanxi Province, the south to Lingbao City is Xiaoqinling Mountain while the north is Yellow River. Lingbao is one of the key ecological arrangement areas in the upper reaches of Yellow River. Geography coordinate of Lingbao is 34°07′10″ to 34°44′21″N and 110°21′18″ to 111°11′25″E.

Lushi County is bordered by Lingbao City to the north; Geography coordinate is 33°32′55″ to 34°23′05″N and 110°34′25″ to 111°34′25″E.

2) Landform

Lingbao City is located in the hill region of west Henan, the terrain there is high in southwest and low in northeast, the elevation is ranged from 308 to 2431.8 meters, this region has a varied topography because of its mountainous. There are 7 main rivers within Lingbao that flow into Yellow River, all of these rivers are parts of first level branches of Yellow River, the total drainage area of Lingbao is 1801km^2.

The terrain of Lushi County is high in southwest and low in northeast. The landform of Lushi includes Middle Mountain, Low Mountain and Valley. The south part of Lushi is mainly Middle Mountain topography with an elevation ranged from 1000 to 2000 meter, the north part of Lushi is mainly Low Mountain topography with an elevation ranged from 600 to 1000 meter, Valley topography is mainly located alongside rivers such as Luo River, Laohuan River, Guanpo River and so on, the elevation of Valley topography is ranged from 475 to 600 meter.

3) Climate

Lingbao City has a warm temperate continental monsoon climate feature, it is cold, and lack of rain and snow in winter, dry and windy in spring, hot and rainy in summer, cool and rainfall is decreasing in autumn. Annual average temperature of Lingbao is 13.8°C; frost-free period is approximate 190 to 215 days. Lingbao has 2279 hours sunshine and 619.5mm precipitation on average per year.

Lushi County was divided of two parts by Xionger Mountain; the north part has a subtropical climate feature while the south part has a warm temperate climate feature. The monsoon climate and climate change pattern here is obviously. Annual average temperature of Lushi is 42.1°C, the lowest temperature is -19.1°C, and frost-free period is 184 days. Lushi has 2118 hours sunshine and 632.9 mm precipitation on average per year.

4) Hydrology

There are thousands of rivers in Lingbao City; seven of them are parts of first level branch rivers of Yellow River water system. Lingbao has about 0.2 billion cubic meter subsurface water resource.

There are 2400 waterways in Lushi County; all of them are parts of Chang Jiang and Yellow River water system. Rivers located in the north part of Lushi, Laohuan River, Qi River are parts of Chang Jiang water system and rivers located in the south part, Luo River, Duguan River are parts of Yellow River water system. Lushi has an excellent quality subsurface water resource.

5) Soil

Soil in Lingbao City is spread regular along with the different topographical features. There are four types of soil in Lingbao including brown soil, cinnamon soil, moisture soil and aeolian sandy soil. Most of the soil texture is middle soil with a pH value ranged between 7 and 7.5.

Soil types in Lushi County including brown soil, cinnamon soil, moisture soil and yellow-brown soil.

6) Occurrence of extreme events

There are no drought, flood, frost and other extreme events in both Lingbao City and Lushi County.

7) Ecosystem and rare/endangered species

Lingbao City is famous for her species diversity. Standing at south part of warm temperate zone, Lingbao has become a junction area of southern and northern plants, and a variety of biotic communities is formed in this region. The biological system in Lingbao is consists of 144 families, 780 genus and 2100 species of advanced plants. The endangered species are listed as below:

Rare Plant Species		
Scientific Name	Common name	Status
Abies chensiensis Van	Cold fir	State Protection
Euptelenpleiospermn	Spring guide	State Protection
Cercidiphyllaceae	Fragrant wood	Province Protection
Fraxinus mandshurica Rupr	Water slender	Province Protection
Rare Bird Species		
Scientific Name	Common name	Status
Grus nigricollis	Black crane	State first-class
Aquila chrysaetos	Gold eagle	State first-class
Aquila heliaca	White shoulder eagle	State first-class
Haliaeetus albicilla	White tail eagle	State first-class
Egretta alba	Big white heron	Province Protection
Rare Mammal Speices		
Scientific Name	Common name	Status
Panthera pardus	Gold leopard	State first-class
Manis pentadactyla	Mountain cut armor	State second-class
Cuon alpinus	Wolf	State second-class
Viverricula indica	Cunning cat	State second-class
Catopuma temminckii	Gold cat	State second-class
Moschus berezovskii	Forest musk deer	State second-class
Erinaceus europaeus	Hedgehog	Province Protection
Muntiacus reevesi	Moschus chinensis	Province Protection
Other Species		

Scientific Name	Common name	Status
Andrias davidians	Baby fish	State second- class


Figure A.5.2.1 Endangered specie in Lingbao City

There are 104 families and 602 species of plants in Lushi County, including 347 woody plant species, the endangered species in Lushi are listed as below:

Rare Plant Species		
Scientific Name	Common name	Status
Toxicodendron vernicifluum	Paint tree	Province Protection
Vernicia fordii	Oil tung	Province Protection
Quercus dentate	Oak	Province Protection
Meliosma cuneifolia	Dragon subdue wood	Province Protection
Rare Mammal Speices		
Scientific Name	Common Name	Status
Moschus berezovskii	Forest musk deer	State second-class
Other Species		
Scientific Name	Common Name	Status
Andrias davidians	Baby fish	State second- class


Figure A.5.2.2 Endangered specie in Lingbao City

8) Conclusion

The project areas in both Lingbao City and Lushi County are herbage and shrub plants dominant degraded grassland, the soil condition and land type is suitable for afforestation project activity.

A.5.3. Species and varieties selected:

Eucommia ulmoides Oliver.
Pinus tabuliformis.

A.5.4. Technology to be employed by the proposed small-scale A/R CDM project activity:

The planting on mountainous regions increase the difficulties of transportation and plantation. In the past, local people and government have tried to set up afforestation activities on some neighbourhood areas with similar conditions, but the complex topography and poor investment condition make it difficult for cultivating, maintaining and developing forest after plantation, which result in a very low survival rate of the plants and ineffectual afforestation. In order to cover the previous failure causes, the proposed afforestation project activity will be carried out by Tiandi Corporations, with its own high-quality afforestation technology. The processes of the project activity, including seedlings selection, land preparation, plantation and forest management will be developed by experienced forestry experts and technicians to ensure a high survival rate of the planted species, and moreover the high cost of manual work on mountainous region will be covered by the CDM. The procedures of the afforestation technology to be employed including the following steps:

1) Tree species selection

The species to be planted are *Eucommia ulmoides Oliver* and *Pinus tabuliformis*; they are common deciduous trees that widely spread at the south of Qinling Mountains and Yellow River. *Eucommia ulmoides Oliver* is sun-loving and drought-enduring tree species, the optimal growth environmental of *Eucommia* is middle soil which has a pH value between 5.0 and 7.5. There are usually 10 percent staminiferous plants in *Eucommia* forest.

There are about 40 varieties of *Eucommia ulmoides Oliver* in China, Tiandi has worked over the growth characteristics of each variety and summarized the most suitable specie to be planted in local area. According to the practice experience and local environmental conditions, the varieties to be selected are Jiuliu, Daguo, Qinzhong, Changbing andYanci.

2) Plantation

Because of the complex topography condition of project area and biological characteristics of selected species, the plantation will be implement by manual work.

3) Seedling Standard

The essential requirement of high-quality afforestation project is plant with fine variety of seedlings. In order to achieve the project objective of a high survival rate of the plants, we will stick selecting the first level *Eucommia* seedlings. Those seedlings must have a minimum height of 80cm and minimum root stem of 0.75cm and free from plant diseases. All seedlings should be well protected in transit.

Annual growth first level *Pinus* seedlings will be selected according to the related regular of Henan Province.

Figure A.5.4.1 Eucommia nursery

4) Planting density

A suitable plant density could favor the growth of plants and convenient for manual works. Considering the growth characteristic of plants and site conditions, the plant density for this project activity is listed as below.
Eucommia ulmoides Oliver : Planting and row distant is 4m×4m at the upper part, 4.5m×4m at the middle part and 5m×4m and the bottom part of the mountain, average planting density is 600trees/ha.
Pinus tabuliformis: Planting and row distant is 2m×3m, average planting density is 1,650trees/ha.

5) Land Preparation
Natural grasses and shrubs shall be removed before plantation; native woody plant (if applicable) shall be preserved modestly. The recommend clearance time is summer and autumn according to the practice experience.

Rational land preparation could provide a good growth environment after weeding. The best land preparation seasons are autumn and winter. According to the soil condition of the project site, a cave-shaped land preparation is necessary, the surface soil and bottom soil shall be put in the both sides of the triangular section pit during digging; the size of the pit is 1m×1m×1m for *Eucommia ulmoides Oliver* and 0.3m×0.3m×0.4m for *Pinus tabuliformis*.

Fertilization should be applied once during the plantation, 5kg for each *Eucommia ulmoides Oliver* tree, the combine fertilization may be applied at the bottom part of the mountain, the fertilizer and the soil should be mixed before application.

6) Plant time
The most suitable seasons for planting are autumn (between Nov. and Dec.) and spring (between Mar. and Apr.), the seedling should be planted as soon as it is prepared.

Figure A.5.4.2 Planting out

7) Planting technique and procedure
Two labours will work in collaboration. First, even mix the fertilizer and the soil, dig planting pit; after that, one person put the seedling into the pit until its neck reach the surface level, keep the seedling straight and the root outspread, the other person fill the pit with the soil, the seedling may be lifted for 2-3 cm after 2/3 of the pit is filled, compacted the soil and watering, filling the pit with the rest of soil after watering, recomputed the soil. The plant should be covered with a mound of soil if planting time is autumn.

8) Management and Protection of early period
Remove the lateral as long as it growth to 10-15cm long, it may not necessary for those two years lateral removed seedling.
Remove grasses that surrounding the plant and cover the seedling with membranes. Intensively control and manage the project area case of man-made damage.

9) Management of Mature Forest
Watering is necessary in germination, anthesis and fruiting period. Irrigation volume is 300 to 375 cubic meters per hectare.
Fertilization will be applied once a year from the third year, right after the abscission period. Fertilizing amount is 2-3kg for trees younger than 6 years and 3-4kg for trees older than 7 years.
Weeding should be completed annually before autumn; the stubble of grasses should not exceed 10cm.

10) Afforestation model
According to the different topography condition, the project area is divided into five site types, the feature of each site type is shown as below.
Top of sun slope: top part of the mountain with an elevation above 1000 meters, gravel volume is less than 30% and soil thickness is less than 30cm.
Bottom part of sun slope: middle and bottom part of the mountain with an elevation between 800 to 1000 meters, gravel volume is less than 30% and soil thickness is ranged from 30 to 60cm.
Top of shade slope: top part of the mountain with an elevation above 1000 meters, gravel volume is less than 30% and soil thickness is less than 30cm.
Bottom part of shade slope: middle and bottom part of the mountain with an elevation between 800 to 1000 meters, gravel volume is less than 30% and soil thickness is ranged from 30 to 60cm.
Table land: gradient slope is less than 10 degrees and soil thickness is ranged from 30 to 60 cm.
Please find different management plan for each site type at B.5.

11) Technical Standard to be applied
- Forest Law of People's Republic of China
- Technical Regulation of Afforestation (GB/T 15776-2006)
- Regulation of Afforestation (LY/T 1607-2003)
- Geographic brand product, Lingbao Eucommia (GB/T 22742-2008)
- High yield Technology of Eucommia (LY/T 1561-1999)
- Carbon Sequestrate Afforestation Regulation
- Forest Management Regulation (GB/T 15781-1995)
- Classification for qualification of seedling (GB 6000-1999)
- Produce Technology of Lingbao Eucommia (DB411282/T002-2004)
- Classification of site type and Afforestation design in Henan Province

A.5.5. Transfer of technology/know-how, if applicable:

There is no transfer of technology and know- how from Annex1 countries to the host country.

A.5.6. Proposed measures to be implemented to minimize potential leakage as applicable:

Leakage is not applicable since the project does not involve in any displacement of cropland and grazing land, and as there is no household within the project boundary, the settlement displace is not applicable as well. However, the project has planned managerial approaches to minimize the consumption of the energy.

The main consumption of the project is electrical energy and fuel oil. Energy management system and energy department shall be established in term of energy conservation. The responsibility of energy department is to examine water meter and ammeter on schedule to record and control the water and power consumption. The vehicles to be used are energy-saving tricycle and the max carrying capacity shall be applied during the transportation.

A.6. A description of legal title to the land, current land tenure and land use and rights to tCERs / lCERs issued:

Based on the Land Law of the People's Republic of China, the land to be planted in the proposed SSC-A/R CDM project activity is legally owned by local villages as a public property. The latest forest tenure reform regulation has formulate that the use right of the land is belong to local farmer. Under the contractual arrangement in the project, local famers/communities and forest companies (Tiandi) involved will have the right to use the land, they own the timber and other wood and non-wood forest products, and have the legal right to harvest and sell the products. However, they should have license which is issued by the local government before harvesting.

To effectively promote and govern CDM project activities in China, the Chinese government issued the *Measures for Operation and Management of Clean Development Mechanism Projects in China* on Oct.12, 2005, effectively immediately. Based on the *Measures*, the Chinese Government allows any sponsor to apply, invest in, and implement a CDM project activity as long as it meets basic requirements stipulated in the *Interim Measures*. The right of access to the sequestered carbon belongs fully to implanting after Chinese government taxes 2% of transfer value.

A.7. Assessment of the eligibility of land:

The Chinese Government defines forests as land having growing trees with:

- A minimum area of 0.067 hectares;
- A minimum tree crown cover of 20%; and
- A minimum height of 2 meters.

Therefore, the threshold values of the forest definition of Chinese government comply with the UNFCCC definition and are to be used for the purposes of the Kyoto Protocol.

The eligibility of the small-scale A/R CDM afforestation project activities under this PDD is assessed using "Procedures to define the eligibility of land for afforestation and reforestation project activities" (EB 35, Annex 18).

(a) Demonstrate that the land at the moment the project starts does not contain forest by providing transparent information that:

i. Field survey of the project area indicated that the lands to be planted for the proposed SSC-A/R CDM project activity are degraded land cover with grasses and shrubs. The currently forest resources map of project area also indicate that the land within the project boundary are all forestation-suitable land and shrub land. Although there are very few growing trees in some small pieces of the land, the crown cover is still below 20% and the height is below 2 meters of the threshold for defining a forest as communicated by Chinese DNA.

Figure A.7.1 Field Survey of Project site

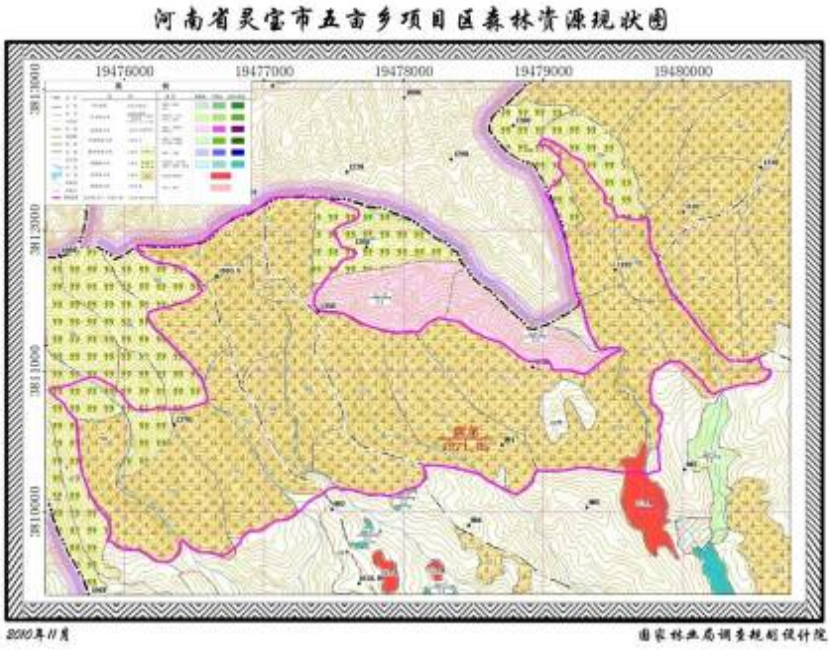

Figure A.7.2 Forest Resource of Wumu Country

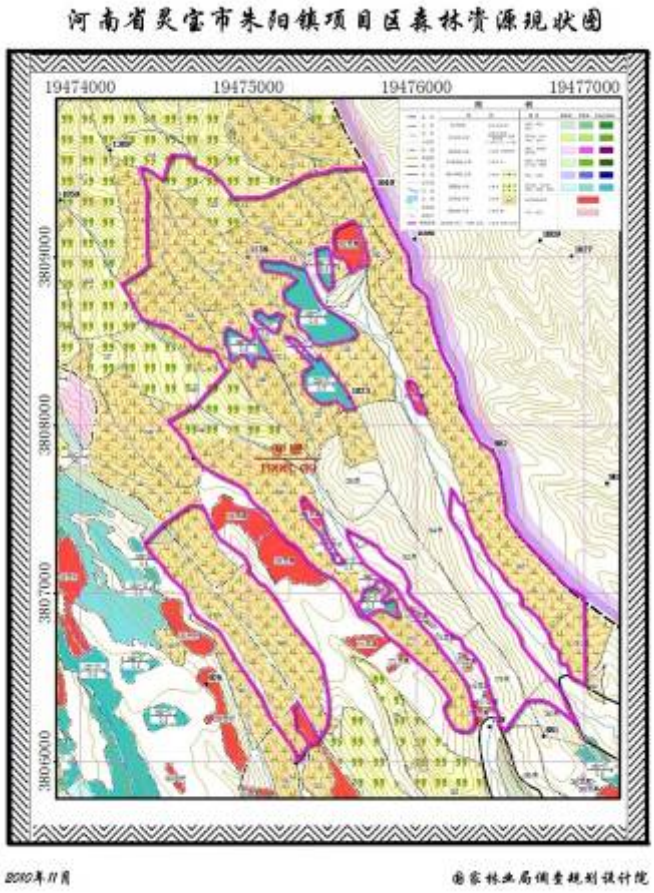

Figure A.7.3 Forest Resource of Zhuyang Town

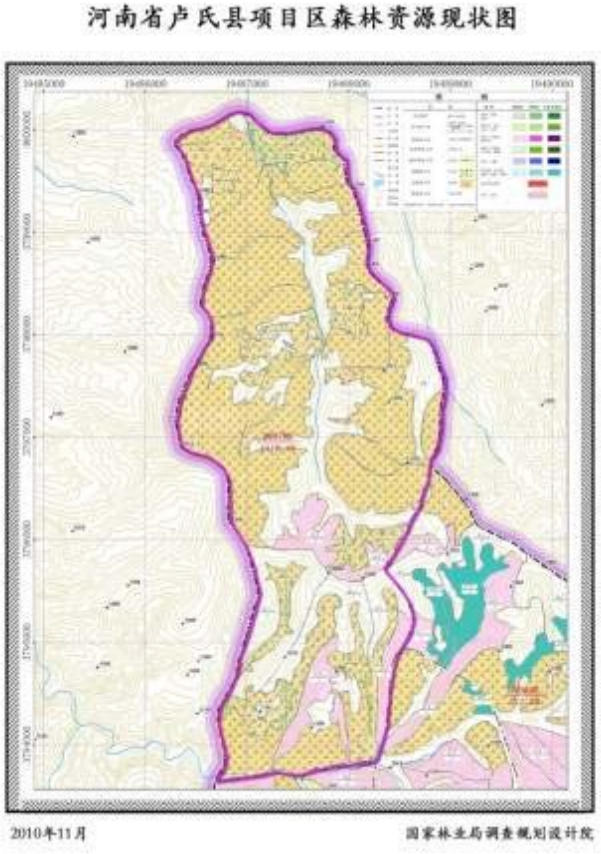

Figure A.7.4 Forest Resource of Lushi County

ii. Almost all species in the project area are grasses and shrubs, and they are playing a dominant role currently, so all young natural stands and all plantations on the land are not expected to reach the minimum crown cover and minimum height chosen by the Chinese government;
iii. History records and documents of local forest department demonstrate that the lands to be planted are barren land, not temporarily unstocked as a result of human intervention.

(b) Demonstrate that the activity is a reforestation or afforestation project activity:

i. Interview with local farm/communities on land use/cover history indicates that the lands to be planted in the proposed SSC-A/R CDM project activity have been non-forested since at least 1989.
ii. History record and documents of local forest department also provide credibility ev.idences to demonstrate the lands to be planted have been non-forested since at least 1989

A.8. Approach for addressing non-permanence:

√□ **Issuance of tCERs**
□ **Issuance of lCERs**

A.9. Duration of the proposed small-scale A/R CDM project activity / Crediting period:

A.9.1. Starting date of the proposed small-scale A/R CDM project activity and of the (first) crediting period, including a justification:

01/01/2012

A.9.2. Expected operational lifetime of the proposed small-scale A/R CDM project activity:

60 years

A.9.3. Choice of crediting period and related information:

1.	Renewable crediting period	☐ √
2.	Fixed Crediting period	☐

A.9.3.1. Duration of the first crediting period (in years and months), if a renewable crediting period is selected:

20 years.

A.9.3.2. Duration of the fixed crediting period (in years and months), if selected:

Not applicable.

A.10. Estimated amount of net anthropogenic GHG removals by sinks over the chosen crediting period:

Years	Annual estimation of net anthropogenic GHG removals by sinks in tonnes of CO_2 e
Year 2012	*-604*
Year 2013	*9,657*
Year 2014	*14,405*
Year 2015	*14,262*
Year 2016	*14,230*
Year 2017	*14,235*
Year 2018	*14,264*
Year 2019	*14,310*
Year 2020	*14,367*
Year 2021	*14,430*
Year 2022	*14,494*
Year 2023	*14,556*
Year 2024	*14,611*
Year 2025	*14,659*
Year 2026	*14,698*
Year 2027	*14,728*
Year 2028	*14,749*
Year 2029	*14,764*
Year 2030	*14,771*
Year 2031	*14,774*
Total estimated net anthropogenic GHG removals by sinks (tonnes of CO_2 e)	*270,360*
Total number of crediting years	*20*
Annual average over the crediting period of estimated net anthropogenic GHG removals by sinks (tonnes of CO_2e)	*13,518*

A.11. Public funding of the proposed small-scale A/R CDM project activity:

There is no national or international public funding of the proposed SSC-A/R CDM project activity.

A.12. Confirmation that the small-scale A/R CDM project activity is not a debundled component of a larger project activity:

The proposed SSC-A/R CDM project activity is a single project planned by Henan Tiandi Technology Corporation. The project has its own approved feasibility study report and investment analysis, it is confirmed that the proposed SSC-A/R CDM project activity is not a debundled component of a larger project activity determined through Appendix C of simplified modalities and procedure for small- scale afforestation and reforestation project activities under CDM.

SECTION B. Application of a baseline and monitoring methodology :

B.1. Title and reference of the approved baseline and monitoring methodology applied to the proposed small-scale A/R CDM project activity:

Simplified baseline and monitoring methodologies for small-scale A/R CDM project activities implemented on grasslands or croplands with limited displacement of pre-project activities, AR-AMS0001 Version 06.

B. 2. Justification of the applicability of the baseline and monitoring methodology to the proposed small-scale A/R CDM project activity:

The proposed SSC-A/R CDM project activity fulfills of the applicability conditions stated by AR-AMS001: *Simplified baseline and monitoring methodologies for small-scale afforestation and reforestation project activities implemented on grasslands or croplands with limited displacement of pre-project activities*:

(a) Project activities are implemented on grasslands or croplands. As indicated before, the project is implemented on degraded grasslands.

(b) Project activities are implemented on lands where the area of the cropland within the project boundary displaced due to the project activity is less than 50 per cent of the total project area. There is no cropland in the project boundary currently.

(c) Project activities are implemented on lands where the number of displaced grazing animals is less than 50 per cent of the average grazing capacity[1] of the project area. There is no grazing animal in the project boundary currently.

(d) Project activities are implemented on lands where ≤ 10% of the total surface project area is disturbed as result of soil preparation for planting. Site and land preparation of the planting will not result in more than 10% disturbed of the total surface within the project area as plow is not to be applied during the plantation.

B.3. Specification of the greenhouse gases (GHG) whose emissions will be part of the proposed small-scale A/R CDM project activity:

As per the "*Simplified baseline and monitoring methodologies for small-scale A/R CDM project activities implemented on grasslands or croplands with limited displacement of pre-project activities*", CO_2 is the only GHG included as part of the proposed small-scale A/R CDM project activity. And according to AR-AMS001, the project emissions are considered insignificant and therefore neglected.

B.4. Carbon pools selected:

In accordance with the "*Simplified baseline and monitoring methodologies for small-scale A/R CDM project activities implemented on grasslands or croplands with limited displacement of pre-project activities*", carbon pool to be considered by proposed small-scale A/R CDM project activity are only above- and below-ground tree and woody perennials biomass and below-ground biomass of grasslands.

Carbon pools	Selected (answer with yes or no)
Above ground	Yes
Below ground	Yes
Dead wood	No
Litter	No
Soil organic carbon	No

B.5. Description of strata applied for ex ante estimations:

For Baseline strata:

As described in AMS001, the project area should be stratified for purpose of the baseline calculation into:

(a) Area of cropland with changes in the carbon stocks in the living biomass pool of woody perennials and in below-ground biomass of grasslands expected not to exceed 10% of *ex ante* actual net GHG removals by sinks multiplied by share of the area in the entire project area;

(b) Area of grassland with changes in the carbon stocks in the living biomass pool of woody perennials and in below-ground biomass of grasslands expected not to exceed 10% of *ex ante* actual net GHG removals by sinks multiplied by share of the area in the entire project area;

(c) Area of cropland with changes in the carbon stocks in the living biomass pool of woody perennials and in below-ground biomass of grasslands expected to exceed 10% of *ex ante* actual net GHG removals by sinks multiplied by share of the area in the entire project area;

(d) Area of grassland with changes in the carbon stocks in the living biomass pool of woody perennials and in below-ground biomass of grasslands expected to exceed 10% of *ex ante* actual net GHG removals by sinks multiplied by share of the area in the entire project area.

Field survey for baseline biomass stocks had been carried out by experts from State Forestry Administration in year 2010. According to the preliminary investigation, the project area are all degraded grasslands dominated by grasses and shrubs, the average coverage of present vegetation is 80%-90%. On the basis of state standard operation procedures of sampling and estimating biomass stocks on natural grassland, 15 preliminary sample plots (2m*1m) were set on different slopes and aspects within the project area. According to the technical requirements of biomass estimation, the experts collected all the vegetations within the preliminary sample plots. The vegetations samples were classified into four groups, above ground grasses, below ground grasses, above ground shrubs (woody perennials) and below ground shrubs. The fresh weight and air-dry weight of above and below ground, grasses and shrubs were measured firstly, the absolute dried weight were measured after 6 hours' drying for grasses and 12 hours' drying for shrubs. The biomass stocks within the project area were then estimated on the basis of

measurement results.
The results are shown as below:

Table B.5. Total biomass stocks of 15 preliminary samples

Vegetation		Fresh weight (g)	Air-Dry weight (g)	Absolute Dried weight (g)
Grass	**AG**	3,753	3,019	905.7
	BG	3,829	3,829	1,914.5
Shrub	**AG**	2,069	2,069	1,551.75
	BG	2,527	2,527	1,768.9

As mentioned before, the project areas are dominated by herbs and shrubs with 80%-90% coverage. The total shrubs (woody perennials) biomass of 15 samples is 3.3 kg, average biomass stock is 3.3/ (15*2) = 0.11 kg d.m./m^2 , which means 1.1 t d.m./ha. According to the 10 years' growth cycle of shrub vegetations, the average annual increment of carbon stocks in living biomass pool of woody perennials will not excess 0.11 t C/ha/yr. The result is estimated on the basis of following assumptions:

- The biocenology condition of the three Countries/Towns of the project areas are analogously, the dominate specie currently are grasses and shrubs.
- Total area of proposed project activity is 1700 hectares.
- Growth cycle of shrubs on degraded grassland is 10 years.
- Carbon fraction of dry biomass=0.5.

For significant changes in the carbon stocks are not expected to occur, we hereby assume one stratum for baseline estimation:

Land of grassland with changes in the carbon stocks in the living biomass pool of woody perennials and in below-ground biomass of grasslands expected not to exceed 10% of ex ante actual net GHG removals by sinks multiplied by share of the area in the entire project area.

For ex-ante estimation:
As described in AMS001, for the ex ante calculation of the project biomass, the project should be stratified according to the project planting plan that is, at least by tree species (or groups of them if several tree species have similar habits), and age classes. The planting plan on different site types of the project activity is listed as below:

<table>
<tr><th>Tree specie</th><th>Land Type</th><th>Land Preparation (long*width*depth)</th><th>Planting Density</th><th>Fertilize</th><th>Seedling Age</th></tr>
<tr><td rowspan="5">Eucommia ulmoides Oliver</td><td>top of sun slope</td><td rowspan="2">1*1*0.8m</td><td rowspan="2">4*4.5m</td><td rowspan="2">5-6kg fertilizer per tree</td><td rowspan="6">2 years' first-class seedling</td></tr>
<tr><td>top of shade slope</td></tr>
<tr><td>underneath of sun slope</td><td rowspan="3">1*1*1m</td><td rowspan="2">4*4m</td><td rowspan="3">4-5kg fertilizer per tree</td></tr>
<tr><td>underneath of shade slope</td></tr>
<tr><td>table land</td><td>4*5m</td></tr>
<tr><td>Pinus tabuliformis</td><td>any</td><td>1*1*0.8m</td><td>2*3m</td><td>0.5kg fertilizer per tree</td></tr>
</table>

And the project area should be stratified for calculating ex-ante actual net GHG removal by tree species and their age class.

Ex-ante stratified				
Stratum Number	Tree Species	Age Class	Hectare	Area %
1	*Eucommia ulmoides Oliver*	2012	510	30%
2	*Eucommia ulmoides Oliver*	2013	510	30%
3	*Eucommia ulmoides Oliver*	2014	510	30%
4	*Pinus tabuliformis*	2012	56.7	3.3%
5	*Pinus tabuliformis*	2013	56.7	3.3%
6	*Pinus tabuliformis*	2014	56.7	3.3%
Total			1700	100%

B.6. Application of baseline methodology to the proposed small-scale A/R CDM project activity:

The baseline is assumed to be "existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary"

The existing land use is investigated through field survey. Study of project site and the latest forest resource map indicate that the project land is degraded grassland dominated by herbs and shrubs. There is a few woody plants in some pieces of the project area, however their crown cover is below 20% and height is below 2 meters of the threshold for defines forest communicated by Chinese Government.

Interview to local Forestry Administration and people indicated that the land has not been forest since at least 1989. Local government and people have tried to plant trees on some analogical lands near the project area, however the bad land occupation condition not only greatly increase the cost of labors for plantation and management, but also make it difficult to raise new plants at early period after planting, which results in a low survival rate of new plants, and the land remains degraded now. Although the latest forest tenure reform has given the land use right to local people, it is still impossible for lands within the project boundary to become forest by natural develop or human actions, the reasons are demonstrated as follow:

- Unavailability of natural seed sources and poor site conditions will not allow the natural encroachment of tree vegetations that leads to establishment of forests according to the threshold values of national definition of forest for CDM purposes in China.
- Technical barrier still exists for local communities and people to plant on mountain area, without high standard afforestation technique and scientific management, the survival rate of the new plants is not certifiable.
- The project areas are all traditional poor and low-income regions, they could not afford high labor costs for plantation and management of afforestation activity, so is hard for local people and communities to planting voluntary.

Therefore, the most likely baseline scenario of the SSC-A/R CDM project activity is: the project area is still degraded grassland dominated by herbs and shrubs.

Baseline GHG removal are calculated as below:

$$B_{(t)} = (B_{A(t)} + B_{B(t)}) * A \quad (1)$$

Where:

$B_{(t)}$ = carbon stocks in the living biomass pools within the project boundary in absence of the project activity (t C);
$B_{A(t)}$ = carbon stocks in above-ground biomass at time t in the absence of the project activity (t C/ha)
$B_{B(t)}$ = carbon stocks in below-ground biomass at time t in the absence of the project activity (t C/ha)
A = project activity area that is additional (ha)

For above-ground biomass:
$B_{A(t)} = M_{(t)} * 0.5$ (2)
$M_{(t)} = M_{woody(t=0)}$ (3)

Where:
$M_{(t)}$ = above-ground biomass at time t that would have occurred in the absence of the project activity (t d.m./ha).
$M_{woody(t)}$= above-ground biomass of woody perennials at time t that would have occurred in the absence of the project activity (t d.m./ha).
As the result of preliminary samples study by experts from State Forestry Administration, the above ground biomass stocks for woody perennials (absolute dried weight) within 15 samples were 1551.75g, which means (1551.75/15/2)= 51.7g d.m/m^2, and $M_{woody(t=0)}$= 0.52 t d.m./ha
Therefore, $B_{A(t=0)}$ = 0.52*0.5= 0.26 t C/ha

For belowground biomass:
$B_{B(t=0)} = B_{B(t)} = 0.5*(M_{grass} + M_{woody})$ (4)

Where:
M_{grass} = belowground biomass in grass on grassland at time t that would have occurred in absence of the project activity (t C/ha)
M_{woody}= belowground biomass of woody perennials at time t that would have occurred in absence of the project activity (t C/ha)
As the results of samples study by experts from State Forestry Administration, the below ground biomass stocks for woody perennials and grass (absolute dried weight) were:
M_{woody} = 1768.9/15/2= 59.0g d.m/m^2 = 0.59 t d.m./ha;
M_{grass} = 1914.5/15/2= 63.8g d.m/m^2= 0.64 t d.m./ha;
Therefore, $B_{B(t=0)}$ = 0.5*(0.59+0.64) = 0.62 tC/ha, and
$B_{B(t=0)} = B_{A(t=0)} + B_{B(t=0)}$ = 0.26+0.62= 0.88tC/ha.

The baseline net GHG removals by sinks are calculated using:
$\Delta C_{BSL,t} = (B_{(t)} - B_{(t-1)}) * (44/12)$ (5)

Where:
$\Delta C_{BSL,t}$ = baseline net GHG removals by sinks (t CO_2-e)
$B_{(t)}$ = carbon stocks in the living biomass pools within the project boundary at time *t* in the absence of the project activity (t C)

Since the changes in biomass stock of natural vegetation are except to be zero in the absence of the project activity, $B_{(t)}$ is constant.
Therefore:
$\Delta C_{BSL,t} = 0$

Ex-ante GHG removal are calculated as below:

$$N_{(t)} = \sum_{i=1}^{I} (N_{A(t)i} + N_{B(t)i}) * A_i \quad (6)$$

Where:
$N_{(t)}$ = total carbon stocks in biomass at time *t* under the project scenario (t C)
$N_{A(t)i}$ = carbon stocks in above-ground biomass at time *t* of stratum *i* under the project scenario (t C/ha)
$N_{B(t)i}$ = carbon stocks in below-ground biomass at time *t* of stratum *i* under the project scenario (t C/ha)
A_i = project activity area of stratum *i* (ha)
i = stratum *i* (*i* = total number of strata)

For above-ground biomass, $N_{A(t)i}$ is calculated per stratum i as follows:
$N_{A(t)i} = T_{(t)i} * 0.5$ (7)

Where:
$T_{(t)i}$ = above-ground biomass at time t under the project scenario (t d.m./ha)
0.5 = carbon fraction of dry matter (t C/t d.m.)

For below-ground biomass, $N_{B(t)}$ is calculated per stratum *i* as follows:
$N_{B(t)} = exp\ (-1.085 + 0.9256 * ln\ T_{(t)}) * 0.5$ (8)

Where:
$N_{B(t)}$ = Carbon stocks in below-ground biomass at time *t* achieved by the project activity during the monitoring interval (t C/ha)
$T_{(t)}$ = Estimate of above-ground biomass at time *t* achieved by the project activity (t d.m./ha)
0.5 = Carbon fraction of dry matter (t C/t d.m.)

The removal component of actual net GHG removals by sinks can be calculated by:
$\Delta C_{PROJ,t} = (N_t - N_{t-1}) * (44/12) / \Delta t$ (9)

Where:
$\Delta C_{PROJ,t}$ = Removal component of actual net GHG removals by sinks per annum (t CO_2-e/year)
$N_{(t)}$ = Total carbon stocks in biomass at time *t* under the project scenario (t C)
Δt = Time increment = 1 (year)

Project emissions are considered insignificant and therefore:
$GHG_{PROJ,t} = 0$

The ex ante actual net green gas removals by sinks in year *t* are equal to:
$\Delta C_{ACTUAL,t} = \Delta C_{PROJ\,t} - GHG_{PROJ\,t}$ (10)

Where:
$\Delta C_{ACTUAL,t}$ = *Ex ante* actual net greenhouse gas removals by sinks in year *t* (t CO_2-e/year)
$GHG_{PROJ,t}$ = Project emissions (t CO_2-e/year)

Since project emissions are consider insignificant, therefore,
$\Delta C_{ACTUAL,t} = \Delta C_{PROJ\,t}$ (11)
Please find the details of calculation for ex-ante GHG removals by sinks at C.2.

B.7. Description of how the actual net GHG removals by sinks are increased above those that would have occurred in the absence of the registered small-scale A/R CDM project activity:

Additionality of the proposed SSC-A/R CDM project activity shall be explanted according to Appendix B of *Simplified baseline and monitoring methodologies for small-scale A/R CDM project activities implemented on grasslands or croplands with limited displacement of pre-project activities AR-AMS0001*.

Though the establishment of forest planting is high valued by Chinese Government and Sanmenxia Forestry Administration, the latest ecological construction plan published by local government is mainly focus on trees planting that near national highway and main road. Because of the poor site conditions within the project area, local government is not inclined to plant in this area; and because of the lack of necessary investment and technology for afforestation, it is difficult for local people and communities to plant trees on degraded grasslands.

Tiandi has long since been working for afforestation and environment improvement projects. Tiandi has established more than 2000 hectares artificial ecological forest on degraded lands by using their own high-quality afforestation technology. The proposed SSC-A/R afforestation project activity, whose costs will be covered by CDM, will plant trees on 1700 hectares degraded grassland and generate creditable actual net GHG removals by sinks. In absence of the project activity, the project area will remain degraded grasslands with limited carbon sequestration.

According to the *AR-AMS001*, project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the barriers that is listed on Appendix B of *AR-AMS001*. From the perspectives of Tiandi and experts from State Forest Administration, there are several barriers that may prevent the implementation of the project, :

(1) Investment barrier

Eucommia ulmoides Oliver is one of the specific economic valued plants; the bark of this plant is medicinal valued in China, however the market of *Eucommia* bark is recessed in recent years because of the widely planted *Eucommia* in the 1980s and 1990s. The market research of *Eucommia* bark shows more than 3500 tons of *Eucommia* bark are produced each year while the actual demand is not more than 2500 tons per year in China. Because of the long growth cycle of *Eucommia* and high quality requirement of *Eucommia* bark, the collecting period of *Eucommia* bark is about 20-25 years, the prospective of *Eucommia* bark market is not cheerful. The prime products of *Eucommia* forest are *Eucommia* seeds, which is edible and medicinal valued and the economic returns may begins 5 years after planting. But the labor costs for forest management and products collecting are high in mountainous areas, so the internal return rate (IRR) is still lower than the benchmark for forest industry. The investment analysis and cash flow statement are shown below.

The investment of proposed SSC-A/R afforestation project activity consists of the cost of purchasing seedlings and fertilizers, labors fees for site preparation, land preparation, digging pit, planting and fertilize. The detail of the costs is shown as below:

a. Investment and cost

Table B.7.1 Analysis of the plantation investment (*Eucommia ulmoides Oliver*)

Item	Unit Cost (CNY)	Amount per hectare	Total costs (CNY/ha)
Total Cost			**14,970**
Seedling	3.2/tree	600tree	1,20

Site/Land Preparation	2250/ha	1ha	2,250
Digging	10/pit	600pit	6,000
Fertilize, Planting and Watering	1200/ha	1ha	1,200
Fertilizer	1.2/kg	3000kg	3,600

Table B.7.2 Analysis of the plantation investment (*Pinus tabuliformis*)

Item	Unit Cost (CNY)	Amount per hectare	Total costs (CNY/ha)
Total Cost			**5820**
Seedling	0.6/tree	1650tree	990
Labor Cost	3900/ha	1ha	3900
Fertilizer	1/kg	930kg	930

Table B.7.3Total Investment (1000CNY)

Item	*Eucommia ulmoides*	*Pinus tabuliformis*
2012 planting	7634.7	329.8
2013 planting	7634.7	329.8
2014 planting	7634.7	329.8
Infrastructure Projects	2225.7	247.3
Instruments Purchasing	392.4	43.6
System Development	387	43
Rents of Lands (use right for 70years)	3213	357
Evaluation and Management	1764	196
Reserve Cost	1920.6	213.4
Total Cost	32,806.8	2089.7

- The investment analysis of the project activity is estimated in compliance with "*Economic Evaluation Methodology and Parameters of Construction Projects (third edition)*" published by State Development and Refrom Commission and Ministry of Construction, the total cost of the project is component of the cost of *Eucommia* (1530 hectares) and *pinus* (170 hectares).
- The cost of primary materials, labors and necessary infrastructure and instruments are estimated on the basis of local market price and internet data.
- The reserve cost is component of essential reserve cost (3% of total construction cost) and inflation cost (4% of total construction cost)
- Project supervision cost and planting management cost is 1% and 0.5% of total construction cost respectively.

b. Project income and project expense

Economic benefits of the project including sales revenue of forest products (*Eucommia ulmoides oliver* seeds) and CERs, and the expenses are mainly including forest management fee and labor cost for collecting the seeds (see details in AnnexB).

Table B.7.4 Revenue and Expanse of Project Activity

		Early Period	Mature Period	Unit Price
Revenue	Forest Products	150kg/ha/yr	1500kg/ha/yr	10.8CNY/kg
Expanse	Management of *Eucommia*	1650CNY/ha	915CNY/ha	-
	Management of *Pinus*	645CNY/ha	315CNY/ha	-

	Labor Cost for collecting	150kg/ha/yr	1500kg/ha/yr	4.5CNY/kg

The economic returns are expected to occur 5 years after planting, and the revenue will increase as forest growing. Preliminary estimation (according to the feasibility study report by State Forest Administration) of total CDM revenue within the 20 years crediting period of the project activity is approximate 30 million CNY. According to the cash flow statement of the project activity (see details in Appendix B), the benchmark of the projec without CERs revenue is 5.94%.

Investment benchmark for forest industry set by Chinese government is 8%, which means the project is not feasible until it has a higher investment benchmark. The cash flow statement indicates that the investment benchmark without CERs revenue could not reach the threshold for forest industry set by Chinese government, which means the project is not economical attraction.

(2) Social condition barrier
As the geology ages of the project district are very long, the mineral resources there are very rich. Gold resource is one of the abundant mineral resources in Lingbao City, most labors work as mining workers in the project area currently. It is lack of enough skilled and trained labors for plantation and forest management within the project area.

(3) Technical barrier
The project areas are located on mountainous areas, which will increase the difficulties for plantation and management of forest in the early period after planting. Local government and people have tried to plant trees in this area and eventually failed due to the low survival rate of the plants.

In conclusion, the high-quality afforestation implemented by Tiandi Coronation will overcome the social and technical barriers; the sales revenue of CERs will cover the investment barrier of the project, afforestation on the project area is impossible without external financing such as CDM revenue and technical support by experienced experts. Without carbon revenues, the afforestaion is not sustainable.

B.8. Application of monitoring methodology and monitoring plan to the small-scale A/R CDM project activity:

Sample Plots:

The project shall be monitored in compliance with *AMS001*, according to the latest version of *"Calculation of the number of sample plots for measurements within A/R CDM project activities"*; the number of sample plots required for estimation of biomass stocks for the project is calculated as:

$$n = \frac{N * t_{VAL}^{\ 2} * (\sum_i w_i * s_i)^2}{N * E^2 + t_{VAL}^{\ 2} * \sum_i w_i * s_i^{\ 2}} \quad (12)$$

Where:
n = Number of sample plots required for estimation of biomass stocks within the project boundary; dimensionless;
N = Total number of possible sample plots within the project boundary (i.e. the sampling space or the population); dimensionless, according to the usual practice and state standard for samples, the sample plots to be set are 20*30m^2, and the total project area is 17,000,000m^2, therefore, N = 17,000,000/ (20*30) = 28,333;
t_{VAL}= Two-sided Student.s t-value, at infinite degrees of freedom, for the required confidence level;

dimensionless, and *t*= 1.645 in this equation as indicated in *"Calculation of the number of sample plots for measurements within A/R CDM project activities";*
w_i = Relative weight of the area of stratum *i* (i.e. the area of the stratum *i* divided by the project area); dimensionless; as indicated before, $w_1 = w_2 = w_3 = 0.3$, *w4 = w5 = w6 =0.03*;
s = Estimated standard deviation of biomass stock in stratum *i*; t d.m. (or t d.m. ha^{-1}));
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 = 1, 2, 3, biomass stock estimation strata within the project boundary;

w_i and E should be estimated every five years through study of preliminary sample. According to the feasible study report, the project activity is planned to establish 30 preliminary sample plots within the project area.

If the calculation result of n is less than 30, since the sampled area (20*10m) is less than 5% of the project area, the following simplified equation is used for estimating the number of sample plots:

$$n = (\frac{t_{VAL}}{E})^2 * (\sum_i w_i * s_i)^2 \quad (13)$$

Number of sample plots allocated to a stratum is calculated as:

$$n_i = n * \frac{w_i * s_i}{\sum_i w_i * s_i} \quad (14)$$

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

Monitoring Plan:

The project owner will establish a vocation department to supervise and monitor the project activity.

a. Monitoring Plan

a.1 Project monitoring

- Supervise the project boundary. The project activity is expected to occur on degraded grassland, and the project is planned not involve in displacement of grazing land and cropland. However if there exists any changes of the project boundary, the monitor should keep an account on the geographical information of the project boundary, and estimate the displacement of cropland and grazing land if applicable. The following records maybe necessary:
  - ✓ The geographical information of project boundary.
  - ✓ The disturbance of the total surface, which is not expected exceed 10%.

- ✓ The displacement of cropland, which is not expected exceed 50% within the project area and the displacement of grazing land, which is not expected exceed 50% of the average grazing capacity of the project area.

- Plantation
  - ✓ Accurate time, place, area for every planting.
  - ✓ Amount, rate and type of fertilizer application.
  - ✓ Ensure seedling selection and site preparation is consistent with the project plan.
  - ✓ Ensure weeding is consistent with the project plan.
  - ✓ Ensure the tree species used is consistent with the project plan.
  - ✓ The use of fund for afforestation.

a.2 Forest management

- Amount, rate and type of fertilizer application.
- Time, place, area of lateral removal.
- Time, place, area and biomass of cutting.
- Survival rate of the plants for early credit period.
- The use of fund for afforestation management.

b. Ex-post estimation of actual net GHG removal by sinks

- Set standard operation procedures for monitoring of carbon sequestration in order to record accurate actual net GHG removals by sinks.
- Training employees for methodologies of CDM projects, an employee may monitor carbon sequestration only after fully understanding the requirement of proposed CDM project.
- Take an account on the accurate location of each sample plot using GPS and mark the centre of the sample plot on the map.
- As described in B6, the strata for the ex-post estimation of actual net GHG removal by sinks is stratified with tree species/age class, the DBH and height of trees within the project area should be measured through preliminary samples.
- Calculation the above ground biomass for each tree within the sample plots by the formula below, it is assumed that the carbon faction of trees is 0.5.

  For *Eucommia:*

  $$Log\ E_{(t)i} = 0.8602*log\ (DBH^2*H) - 0.8304 \quad (15)$$

  Where:
  $E_{(t)i}$ = above ground and below grand biomass stocks in each *Eucommia* tree at stratum *i* time *t* (kg d.m). *;*
  DBH = diameter at breast height for each *Eucommia* tree (cm);
  H = height of each *Eucommia* tree (m);

  For *Pinus*:

  $$Log\ W_{(t)i} = 0.854859*log\ (DBH^2*H) - 2.76574 \quad (16)$$

  Where:
  $W_{i(t)}$ = above ground biomass stocks in each *Pinus* tree at stratum *i* time *t* (kg d.m). *;*
  DBH = diameter at breast height for each *Pinus* tree (cm);
  H = height of each *Pinus* tree (m);

- Estimate above ground and below ground biomass through preliminary samples:

  $$N_{(t)} = 0.5*0.001*\sum (600*E_{(t)i} + 1650*(W_{(t)i}+N_{B(t)i}))*A_i \quad (17)$$

$N_{B\,(t)i} = exp\,(-1.085 + 0.9256 * ln\, T_{(t)i}) * 0.5$ (18)

Where:
$N_{(t)}$ = Estimate of total biomass at time *t* achieved by the project activity (t C/ha);
A_i = area of stratum *i* in square meter, and;
0.5 = *Carbon* fraction of dry matter (t C/t d.m.)
0.001 = transition value from kg to t;
600 = plant density of *Eucommia* (trees/ha)
1650 = plant density of *Pinus* (trees/ha)
$N_{B\,(t)}$ = Carbon stocks in below-ground biomass at time *t* achieved by the project activity during the monitoring interval (t C/ha)
$T_{(t)}$ = Estimate of above-ground biomass at time *t* achieved by the project activity (t d.m./ha)
0.5= *Carbon* fraction of dry matter (t C/t d.m.)

- Calculate the mean and standard deviation of total carbon from the preliminary sample plots.
- Calculate the number of sample plots required to achieve a precision of ± 10% at a 95% confidence using the following formula from *"Calculation of the number of sample plots for measurements within A/R CDM project activities"*, as described above;
- Allocated samples to different stratums by using the equation above;
- Re-measure the DBH and H (height) of each tree within sample plots, re-estimate of above ground and below ground biomass stocks in each sample plot, calculate the mean carbon stocks in each stratum;
- Calculate the total carbon stocks (expressed in t CO_2-e) with the project area using the following formula:
$N_{(t)}=(\sum n(t)*A_i/A_s)*44/12$ (19)

Where:
$N_{(t)}$ = total carbon stocks (t CO_2e)
n (t) is the mean of the total carbon per sample plot in stratum *i*;
A_i is the area of stratum *i* in square meters; and
A_S is the area per sample plot.

- Correct for non-eligible plantings
$P_{creditable,(t)} = 0.955 * P_{(t)}$

B.8.1. Data to be monitored: Monitoring of the actual net GHG removals by sinks and leakage.

B.8.1.1. Actual net GHG removals by sinks data:

B.8.1.1.1. Data to be collected or used in order to monitor the verifiable changes in carbon stock in the carbon pools within the project boundary resulting from the proposed small-scale A/R CDM project activity, and how this data will be archived:

>>

Data variable	Source of data	Data unit	Measured calculated or estimated	Recording frequency (years)	Proportion of data to be monitored	Archiving	Comment

Location of the areas where the project activity has been implemented	Field survey or cadastral information or aerial photographs or satellite imagery	latitude and longitude	Measured	5	100 percent	Electronic, paper, photos	GPS can be used for field survey
A_i - Size of the areas where the project activity has been implemented for each type of strata	Field survey or cadastral information or aerial Photographs or satellite imagery or GPS	ha	Measured	5	100 percent	Electronic, paper, photos	GPS can be used for field survey
Location of the permanent sample plots	Project maps and project design	Latitude and longitude	Defined	5	100 percent	Electronic, paper	Plot location is registered with a GPS and marked on the map
Diameter of tree at breast height	Permanent plot	cm	Measured	5	Each tree in the sample plot	Electronic, paper	Measure diameter at breast height (*DBH*) for each tree that falls within the sample plot and applies to size limits
Height of tree	Permanent plot	m	Measured	5	Each tree in the sample plot	Electronic, paper	Measure height (*H*) for each tree that falls within the sample plot and applies to size limits
Basic wood density	Literature	tonnes of dry matter per m^3 fresh volume	Estimated	Once		Electronic paper	
Total CO_2	Project activity	Mg	Calculated	5	All project data	Electronic	Based on data collected from all plots and carbon pools

Ownership of land	Legal agreements supplied by landowners	Land tenure and carbon rights	Calculated	Each monitoring period	100 percent	Electronic and paper	

B.8.1.2. Data for monitoring of leakage (if applicable)

>>

B.8.1.2.1. If applicable, please describe the data and information that will be collected in order to monitor leakage of the proposed small-scale A/R CDM project activity

Project leakage is considered insignificant according to AMS001 because the project does not involve in displacement of any cropland and grazing land. However if the plan of project activity is rearranged, results in any displacement of cropland and grazing land, these changes and actual area of displacement of cropland and grazing land must be recorded.

Data variable	Source of data	Data unit	Measured calculated or estimated	Recording frequency (years)	Proportion of data to be monitored	Archiving	Comment
Area under cropland within the project boundary displaced due to the project activity	Survey	ha	Measured or estimated	One time after project is established but before the first verification	30%	Electronic	
Number of domesticated grazing animals within the project boundary displaced due to the project activity	Survey	Number	Estimated	One time after project is established but before the first verification	30%	Electronic	
Time-average number of grazing domesticated roaming animals per hectare within the project boundary displaced due to the project activity	Survey	Number	Measured or estimated	One time after project is established but before the first verification	30%	Electronic	

B.8.2. Describe briefly the proposed quality control (QC) and quality assurance (QA) procedures that will be applied to monitor actual GHG removals by sinks:

In order to ensure the accuracy of data and information to be collected, and get reliable ex-post actual net GHG removal by sinks, the project will carry out quality control and quality assurance procedures as described below:

a. Collection of data and information
   - Each supervisor and monitor has to receive training programmes held by technology department before on-site work, the training programmes including data-collection and data analysis methods, make them fully understanding the procedure and importance of data and information to be collected.
   - Each supervisor and monitor shall take an account on the precise time, place for every monitoring work during their on-site investigation, and submit formal report to technical department of their records. The technology department should take note of each report for data monitoring.

b. Data monitoring
   - 15% to be sampled at the whole sample plots for repeat collection.
   - Monitoring content including location of sample plots, DBH and height of trees within the sample plots.
   - Compare origin data with repeat collection data, recording error between two measures. If the error exceed 5%, data correction and error analysis report is necessary.
   - Each data should be monitor and check before analysis and calculation in order to avoid man-made mistakes. For questioned data, analysis worker shall turn to technical department.
   - Data documentation including electronic and paper. The data to be document including origin collected data and report, calculation forms for analysis and estimate actual GHG removal by sinks, monitoring report and backup files.

B.8.3. Please describe briefly the operational and management structure(s) that the project operator will implement in order to monitor actual GHG removals by sinks by the proposed small-scale A/R CDM project activity:

Henan Tiandi technology Corporation has already established a *Eucommia* field at 1994; they have developed their own operational and management system for *Eucommia* forest. They also developed SOP for *Eucommia* planting and some of their experience and achievement is published through website. Tiandi will establish another subsidiary to administrate the project and train employees.

A vocational department for operating and manage of the project activity will be establish in order to monitor actual GHG removals by sinks, a staff will be provided with handheld GPS and other necessary tools for their on-site work, and technology department is responsible for training employees and supervision the reliability of the data.

B.9. Date of completion of the baseline study and the name of person(s)/entity(ies) determining the baseline and the monitoring methodology:

Data of completing the baseline study: 2010-3-18

Name of person (s) /entity (ies) determining the baseline:
Wang Changhua
Vice President
Henan Tiandi technology Corporation

SECTION C. Estimation of ex ante net anthropogenic GHG removals by sinks:

C. 1. Estimated baseline net GHG removals by sinks:

>>For calculation of baseline net GHG removal by sinks, see B.6 above

Year	Above Ground	Below Ground	Total
	(t CO_2e)	(t CO_2e)	(t CO_2e)
2012	*1,620*	*3,864*	*5,485*
2013	*0*	*0*	*0*
2014	*0*	*0*	*0*
2015	*0*	*0*	*0*
2016	*0*	*0*	*0*
2017	*0*	*0*	*0*
2018	*0*	*0*	*0*
2019	*0*	*0*	*0*
2020	*0*	*0*	*0*
2021	*0*	*0*	*0*
2022	*0*	*0*	*0*
2023	*0*	*0*	*0*
2024	*0*	*0*	*0*
2025	*0*	*0*	*0*
2026	*0*	*0*	*0*
2027	*0*	*0*	*0*
2028	*0*	*0*	*0*
2029	*0*	*0*	*0*
2030	*0*	*0*	*0*

C. 2. Estimate of the actual net GHG removals by sinks:

The project area is stratified at B.5; the equation used to estimate actual net GHG removals by sinks is shown below:

$N_{(t=0)} = B_{(t=0)}$

Where:
$N_{(t=0)}$ = the carbon stocks for the project scenario at the starting date of the project activity;
$B_{(t=0)}$ = baseline carbon stocks at the starting date of the project activity
Carbon stocks at the starting date of project activity is calculated at B.6 and $B_{(t=0)}$ =0.88tC/ha

For the other years of the project,

$$N_{(t)} = \sum(N_{A(t)i} + N_{B(t)i})*A_i \quad (20)$$

Where:
$N_{(t)}$ = total carbon stocks in biomass at time t under the project scenario (t C);
$N_{A(t)i}$ = carbon stocks in above-ground biomass at time t of stratum I under the project scenario (t C/ha);
$N_{B(t)i}$ = carbon stocks in below-ground biomass at time t of stratum I under the project scenario (t C/ha);
A_i= Project activity area of stratum I (ha);
i= Stratum I.

For *Eucommia*,

$$I_{Eucommia}=2t\ C/yr/ha \quad (21)$$
$$N_{A(t)i}= I_{Eucommia} * t$$
$$T_{(t)i}=N_{A(t)i}/0.5=2*N_{A(t)i} \quad (22)$$
$$N_{B(t)} = exp\ (-1.085+0.9256*lnT_{(t)i})*0.5 \quad (23)$$

Where:
$I_{Eucommia}$= annual incremental in biomass stock for *Eucommia*, this numerical value is obtained from preliminary research results undertaken by Kyushu University, Japan, this value is conservative estimated compare with GPG-LULUCF, Table 3A.1.7, *average annual above ground net increment in volume in plantations by speices.*(t C/ha/year)
$T_{(t)i}$ = biomass stocks in above-ground *Eucommia* at time t under the project scenario (t d.m./ha);
$N_{B(t)i}$ = carbon stocks in below-ground *Eucommia* at time t of stratum I under the project scenario (t C/ha);
t = year after planting (year).

There were several equations described the growth characteristics for DBH and height of *Pinus*, literature researchers indicated that Richard's Function has the best fitting precisions among those equations. Therefore, above ground biomass stocks for *Pinus* are estimated using Richard's Function:

$$DBH_t = 27.7133/ (1 – 1.0037*exp\ (-0.034*t))^{(1/-0.7462)} \quad (24)$$
$$H_t = 6.7209/ (1 + exp\ (1.6096 – 0.2297t) \quad (25)$$
$$Log\ W_{(t)i} = 0.854859*log\ (DBH^2*H) – 2.76574 \quad (26)$$
$$T_{(t)i} = 0.001*1650*W_{(t)i} \quad (27)$$
$$N_{B(t)i} = exp\ (-1.085+0.9256*lnT_{(t)i})*0.5; \quad (28)$$

Where,
DBH= diameter at breast height of *Pinus* at time t under the project scenario (cm);
H= height of *Pinus* at time t under the project scenario (m);
$W_{(t)i}$ = biomass stocks in above-ground Pinus at time t under the project scenario (kg)
$T_{(t)i}$ = biomass stocks in above-ground *Pinus* at time t under the project scenario (t d.m./ha);
$N_{B(t)i}$ = carbon stocks in below-ground *Pinus* at time t of stratum I under the project scenario (t C/ha);
t = year after planting (year);
1650 = plant density of *Pinus*.(tree/ha)

Plantation planning for the specie:

Year	**Planting Area (ha)**	
	Eucommia	***Pinus***
2012	510	56.7
2013	510	56.7
2014	510	56.7

Ex-ante estimate of actual net GHG removal by sinks:

Year	Ex-ante Carbon	Ex-ante CO_2
2012	*1,331*	*4,882*
2013	*3,965*	*9,657*
2014	*7,894*	*14,405*
2015	*11,783*	*14,262*
2016	*15,664*	*14,230*
2017	*19,546*	*14,235*
2018	*23,436*	*14,264*
2019	*27,339*	*14,310*
2020	*31,257*	*14,367*
2021	*35,193*	*14,430*
2022	*39,146*	*14,494*
2023	*43,115*	*14,556*
2024	*47,100*	*14,611*
2025	*51,098*	*14,659*
2026	*55,107*	*14,698*
2027	*59,123*	*14,728*
2028	*63,146*	*14,749*
2029	*67,172*	*14,764*
2030	*71,201*	*14,771*
2031	*75,230*	*14,774*
Total	748,846	*275,846*

Ex-Post Estimation
The carbon stocks, $P_{(t)}$ shall be estimated using equations above.

Leakage attributable to the project activity is not applicable since there is no displacement of agricultural production from within the project boundary and there are no displaced households within the project boundary.

Leakage due to the use of fertilizers is not significant.

Therefore;

$L_t = 0$ (29)

Ex-Ante

Net anthropogenic GHG removals by sinks is given by

$ER_{AR\ CDM,\ t} = \Delta C_{PROJ,\ t} - \Delta C_{BSL,\ t} - GHG_{PROJ,\ t} - L_t$ (30)

Where:
$ER_{AR\ CDM,\ t}$ = net anthropogenic GHG removals by sinks (t CO_2-e / year) (31)

$\Delta C_{PROJ,t}$ = project GHG removals by sinks at time t (t CO_2-e / year) (32)
$\Delta C_{BSL,t}$ = baseline net GHG removals by sinks (t CO_2-e / year) (33)
$GHG_{PROJ,t}$ = project emissions (t CO_2-e / year) (34)

The resulting temporary certified emission reductions (tCERs) at the year of assumed verification t_v are calculated as follows:

$$tCER_{tv}=\sum ER_{ARCDM,t} * \Delta t \quad (35)$$

Where:
$tCER_{tv}$ = temporary certified emission reductions (tCERs) at the year of assumed verification *tv*
$ER_{AR\ CDM,t}$ = net anthropogenic GHG removals by sinks (t CO_2-e / year)
tv = assumed year of verification (year)
Δt = time increment = 1 (year)

Ex-Post

The resulting tCERs at the year of verification *tv* are calculated as follows:
for the first crediting period:

$$tCER= P_{creditable,(t)} - B_{(t=0)} - \sum(GHG_{PROJ,t} - \Delta C_{BSL,t}) - L_{tv} \quad (36)$$

for the subsequent crediting period:

$$tCER= P_{creditable,(t)} - B_{(t=0)} - \sum(GHG_{PROJ,t} - \Delta C_{BSL,t}) - L_{CP1} \quad (37)$$

Where:
$tCERtv$ = temporary certified emission reductions (tCERs) at the year of assumed verification *tv*
$P_{creditable(t)}$ = carbon stocks within the project boundary achieved by the project activity at time *t* (t CO_2-e)
$GHG_{PROJ,(t)}$ = project emissions from use of fertilizers (t CO_2-e/ year)
$\Delta C_{BSL,t}$ = baseline net GHG removals by sinks (t CO_2-e/ year)
L_{tv} = total GHG emission due to leakage at the time of verification (t CO_2-e)
L_{CP1} = total GHG emission due to leakage at the end of the first crediting period (t CO_2-e)
tv = year of verification

Since $GHG_{PROJ,(t)}$, $\Delta C_{BSL,t}$, and L_{tv} = 0, the equations above is simplify to:
$$tCER_{tv}= P_{creditable,(t)} - B_{(t=0)} \quad (38)$$

C. 3. Estimated leakage:

The leakage of the project is considered insignificant therefore neglected.

Year	Leakage for displacement of cropland	Leakage for displacement of grazing land	Total leakage
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0	0	0
2019	0	0	0
2020	0	0	0
2021	0	0	0
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	0	0
2027	0	0	0
2028	0	0	0
2029	0	0	0
2030	0	0	0
2031	0	0	0

C. 4. The sum of C. 2. minus C.1. minus C.3. representing the net anthropogenic GHG removals by sinks of the proposed small-scale A/R CDM project activity:

>>The required formula is $ER_{AR\ CDM\ t}=\Delta C_{PROJ,\ t}-\Delta C_{BSL,\ t}-GHG_{proj,t}-L_t$

Where:

$ER_{AR\ CDM,\ t}$ = net anthropogenic GHG removals by sinks (t CO_2e/year)

$\Delta C_{PROJ,t}$ = project GhG removals by sinks at time t (t CO_2e/year)

$\Delta C_{BSL,t}$ = baseline net GhG removals by sinks (t CO_2e/year)

$GHG_{proj,t}$ = project emissions (t CO_2e/year)

L_t = leakage from project (t CO_2e/year)

The results are:

$ER_{AR\ CDM\ t}$= 13,790 (t CO_{2e}/year)

C. 5. Table providing values obtained when applying equations from the approved methodology:

Year	Estimation of baseline net GHG removals by sinks (tonnes of CO_2 e)	Estimation of actual net GHG removals by sinks (tonnes of CO_2 e)	Estimation of leakage (tonnes of CO_2 e)	Estimation of net anthropogenic GHG removals by sinks (tonnes of CO_2 e)
Year 2012	*-5,485*	*4,882*	0	*-604*
Year 2013	*0*	*9,657*	0	*9,657*
Year 2014	*0*	*14,405*	0	*14,405*
Year 2015	*0*	*14,262*	0	*14,262*
Year 2016	*0*	*14,230*	0	*14,230*
Year 2017	*0*	*14,235*	0	*14,235*
Year 2018	*0*	*14,264*	0	*14,264*
Year 2019	*0*	*14,310*	0	*14,310*
Year 2020	*0*	*14,367*	0	*14,367*
Year 2021	*0*	*14,430*	0	*14,430*
Year 2022	*0*	*14,494*	0	*14,494*
Year 2023	*0*	*14,556*	0	*14,556*
Year 2024	*0*	*14,611*	0	*14,611*
Year 2025	*0*	*14,659*	0	*14,659*
Year 2026	*0*	*14,698*	0	*14,698*
Year 2027	*0*	*14,728*	0	*14,728*
Year 2028	*0*	*14,749*	0	*14,749*
Year 2029	*0*	*14,764*	0	*14,764*
Year 2030	*0*	*14,771*	0	*14,771*
Year 2031	*0*	*14,774*	0	*14,774*
Total (tonnes of CO_2 e)	*-5,485*	*275,846*	*0*	*270,360*

SECTION D. Environmental impacts of the proposed small-scale A/R CDM project activity:

D.1. Provide analysis of the environmental impacts, including transboundary impacts (if any):

There is little industrial company within the district of the project, and the field survey indicates the quality of local soil, water resource and environmental condition is good for afforestation project activity.

The project sites types currently are degraded grassland with poor ecological functions. The afforestation project activity will increase the forest cover as well as forest volume to local area, and improve local ecological system.

The project locate in the water resource protection area of west Henan, the afforestation project activity may result in erosion hazard particular without elaborately planned since the planting is applied on sloping land. However, the large roots system of *Eucommia* can provide well water and land resource conservation, therefore improve soil erosion.

The proposed SSC-A/R project activity could provide measurable and reliable carbon sequestration, improve environment condition by reduce GHG emissions.

D.2. If any negative impact is considered significant by the project participants or the host Party, a statement that project participants have undertaken an environmental impact assessment, in accordance with the procedures required by the host Party, including conclusions and all references to support documentation:

There is no negative impact considered significant by the project participants or the host party.

D.3. Description of planned monitoring and remedial measures to address significant impacts referred to in section D.2. above:

Not applicable.

SECTION E. Socio-economic impacts of the proposed small-scale A/R CDM project activity:

E.1. Provide analysis of the socio-economic impacts, including transboundary impacts (if any):

The project will meet the local market requirement for *Eucommia ulmoides oliver* seeds, enlarge the production scale for forest product industry, improve the development of transportation, chemical, medical and other relevant industry, therefore promote economic development and increase income to local low-income people and communities.

The planting and forest manage has a requirement of vast labors, therefore the project activity will create a lot of job opportunities to local low-income communities and individuals, which would benefit the problem of local surplus labors and play a positive role in stabilizing local society.

The project owner will invest much energy on high-technology afforestation to ensure high survival rate of the plants and excellent quality of forest products, therefore the project activity will play an exemplary role in development of afforestation project activity in degraded lands. The training programs held by project participant may also improve the skills and practice experience to local people and increase the quality of local labors.

The proposed of CDM project will raise the consciousness of reduction of GHG emission to local people. By improve local environmental condition and biodiversity; more people may put their effort on environmental protection.

E.2. If any negative impact is considered significant by the project participants or the host Party, a statement that project participants have undertaken a socio-economic impact assessment, in accordance with the procedures required by the host Party, including conclusions and all references to support documentation:

There is no negative impact considered significant by the project participants or the host party.

E.3. Description of planned monitoring and remedial measures to address significant impacts referred to in section E.2. above:

Not applicable.

SECTION F. Stakeholders' comments:

F. 1. Brief description of how comments by local stakeholders have been invited and compiled:

The comments by local stakeholders are collected by interviewing, message collection and stakeholders' meeting. All the countries and towns involved in the project are investigated. The procedures are shown below:

Set up a Workgroup
A workgroup work for investigation of stakeholders were set up, the member of the group including forest industry experts, local government officials, community representatives and technicians.

Publicize
The group has printed brochures and poster that briefly introduce the CDM project and its essential requirements. A statement of the most likely environmental and social impacts after the implementation of the project is also included in the brochures.

Interview and information collecting
The investigators interviewed all the countries/towns involved in the project activity, and carry out a random-choose investigation to local communities/people, detailed introduced the proposed CDM project to them, inquire their comments and suggestion and take an account of the entire conversation with them. In order to completely understand all stakeholders' comments, a message box is set at each involved village; moreover the local people may also send their opinion through website.

Stakeholders' meeting
An announcement of stakeholders' meeting was published one month earlier, the workgroup has invited representatives of each countries/towns, technicians and forest experts to join the meeting, any local communities/people are welcomed to join as well. The technicians introduced the detail of the project, epically the most likely impact to local people, and ask stakeholders for their opinion. The process of stakeholders' meeting was well document after that.

F. 2. Summary of the comments received:

More than 300 pieces of questionnaires were sent to stakeholders during the interviews/stakeholders' meeting, according to the feedback of questionnaires and the records of the stakeholders' meeting, the stakeholders are generally interested in developing the project and participating in CDM project. Their concerns and questions can be summarized in the following categories:

1. Barrier issues: the project sites are on mountain areas, which increase the difficulties of supplement transport, and will cost more labor fee to the land preparation, fertilize, plant, how may the project owner resolve these barriers.
2. Kyoto rules: the reason and content of Kyoto rules and Clean Development Mechanism, how many Chinese/local projects have been registered as a CDM project, how to evaluate the quality of a CDM project activity.
3. Environmental impact: most of the stakeholders agree that the project will improve the environmental condition of local place, while some of them concerned about whether the construction may generate dust pollution.
4. Further development: whether the project owner is considering intensively and deep process of forest productions.

F. 3. Report on how due account was taken of any comments received:

Inquire forest experts and technicians before the implementation of the project; ask them for advice of planting and management.

Investigate local government and people's attitude toward the project activit; choose their favorable species and suitable project areas. Set land preparation and planting plan on the basis of the results of field survey and database for local forest.

Invited forest experts form State Forestry Bureau Administration for filed study, inquiring their comments and suggestion on construction, logistics management and forest protection measures. The feasibility study report of the project activity is completed by State Forestry Bureau as well.

During the collection of stakeholder's comment, each investigator was provided with a tape recorder or notebook before the interview, they will record their conversation with local people, and they also collect questionnaires from stakeholders. After summarizing the comments from stakeholders, they will submit a formal report to workgroup. The procedure of stakeholder's meeting is well documented as well.

Annex 1

CONTACT INFORMATION ON PARTICIPANTS IN THE PROPOSED SMALL-SCALE A/R CDM PROJECT ACTIVITY

Organization:	Henan Lingbao Tiandi Technology Corporation
Street/P.O.Box:	388 Chang An street, Lingbao
Building:	
City:	Lingbao
State/Region:	Sanmenxia
Postfix/ZIP:	472500
Country:	China
Telephone:	0398-2199666
FAX:	
E-Mail:	
URL:	www.duzhongchina.com
Represented by:	
Title:	Program Coordinate
Salutation:	Mr.
Last Name:	Changhua
Middle Name:	
First Name:	Wang
Department:	
Mobile:	
Direct FAX:	
Direct tel:	0398-2199666
Personal E-Mail:	dzxhc@tom.com.cn

Organization:	HITACHI ZOSEN CORPORATION
Street/P.O.Box:	2-11, Funamachi 2-Chome
Building:	
City:	Taishou-ku
State/Region:	Osaka
Postfix/ZIP:	551-0022
Country:	Japan
Telephone:	+81-6-6551-9621
FAX:	+81-6-6551-9906
E-Mail:	fukushima_r@hitachizosen.co.jp
URL:	www.hitachizosen.co.jp
Represented by:	Ryutaro Fukushima
Title:	Head Researcher
Salutation:	Mr.
Last Name:	Fukushima
Middle Name:	
First Name:	Ryutaro
Department:	Technical Research Institute, Business & Product Development Headquarters
Mobile:	
Direct FAX:	
Direct tel:	
Personal E-Mail:	

Annex 2

INFORMATION REGARDING PUBLIC FUNDING

Annex 3

DECLARATION ON LOW-INCOME COMMUNITIES

Please provide a written declaration that the proposed small-scale afforestation or reforestation project activity under the CDM is developed or implemented by low-income communities and individuals as determined by the host Party.

- - - - -

History of the document

Version	Date	Nature of revision
02	EB35, Annex 22 19 October 2007	● Sections A and B were restructured; ● Requirement to repeat equations has been removed from section C; ● Sections D and E have been aligned with the requirements of the Modalities and Procedures.
01	EB 23, Annex 16(a) and 16(b) 24 February 2006	Initial adoption