



**Monitoring report form for CDM programme of activities
(version 01.0)**

Complete this form in accordance with the Attachment "Instructions for filling out the monitoring report form for CDM programme of activities" at the end of this form.

MONITORING REPORT

Title of the programme of activities (PoA)	Sichuan Rural Poor-Household Biogas Development Programme	
UNFCCC reference number of the PoA	2898	
Version number(s) of the PoA-DD(s) applicable to this monitoring report	1.6	
Coordinating/managing entity (CME)	Chengdu Oasis Science & Technology Co., Ltd.	
Version number of this monitoring report	1.1	
Completion date of this monitoring report	27/06/2016	
Monitoring period number and dates covered by this monitoring report	4 th monitoring period 01/01/2015 – 31/12/2015	
Monitoring report number for this monitoring period	1 Single monitoring report is prepared for all covered CPAs for this monitoring period	
Host Party(ies)	Host Party(ies) of the PoA	Is this a host Party to a specific-case CPA covered in this monitoring report?(yes/no)
	People's Republic of China	Yes
Sectoral scope(s)	Scope 1: Energy industries (renewable - / non-renewable sources) Scope 15: Agriculture	
Selected methodology(ies)	AMS-I.C - <i>Thermal energy production with or without electricity</i> (version 19) (EB61, Annex 16); AMS-III.R - <i>Methane recovery in agricultural activities at household/small farm level</i> (version 02) (EB59, Annex 4).	
Selected standardized baseline(s)	N/A	
Total amount of GHG emission reductions or net GHG removals by sinks for all specific-case CPAs in the PoA covered in this monitoring report	GHG emission reductions or net GHG removals by sinks reported up to 31 December 2012	GHG emission reductions or net GHG removals by sinks reported from 1 January 2013 onwards
	0tCO ₂ e	854,697tCO ₂ e

PART I - Programme of activities

SECTION A. Description of PoA

A.1. Brief description of the PoA

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1. General operating and implementing framework of PoA

The Sichuan Rural Poor-Household Biogas Development Programme (hereafter referred to as “The PoA”) aims to reduce a large amount of greenhouse gases (GHG) by facilitating the installation of a large number of household biogas digesters. To achieve this target, the PoA generates additional incentives to install digesters to households that are supported by existing subsidy schemes. Target group of the PoA are low-income households located in Sichuan Province, China. The primarily targeted areas are thirteen cities (however, the PoA shall not be limited to this thirteen cities exclusively): Yibin, Neijiang, Suining, Ziyang, Zigong, Luzhou, Leshan, Meishan, Mianyang, Guang’An, Ganzi, Aba and Dazhou, all of which are located in Sichuan.

Currently, households in the area of the PoA store animal manure produced by micro-scale animal husbandries in deep pits for several months before applying it to their farmland. In the meantime, coal is used as source of energy for cooking in daily life. During the project activity, each household is equipped with a household biogas digester that treats the manure anaerobically and recovers the generated methane. After installation of the biogas systems, both sources of emissions are reduced: No methane is emitted from the existing manure management systems, as the manure is treated within the biogas digesters and furthermore, all recovered methane is utilized for cooking to reduce the coal consumption of each household.

Furthermore, technical difficulties that occur during the operation of household biogas digesters resulted in a low rate of successful long-term operation among the digesters that have been installed in the past. A fundamental reason is that technical support and maintenance of the digesters and related equipment are not covered by the subsidy schemes. Individual technical support for households is expensive and difficult to obtain in remote areas. Therefore, the acceptance of the technology and the willingness to pay for the installation of bio digesters without guaranteed, regular and proper maintenance is very low.

The PoA is managed, implemented, operated and monitored by the Coordinating Entity (CME) Chengdu Oasis Science & Technology Co., Ltd.. The CME takes care of all CDM related tasks. This includes the writing of all related documents, quantitative calculation of emission reductions, the management of CDM related procedures like validation, registration and verification, and the allocation of CER revenues for the distribution to the farmers and the technical service network.

The technical implementation of the digesters, the operation of the service network, as well as all necessary surveys and monitoring are undertaken by the Sichuan Rural Energy Office and their subsidiaries, the city, county and village level Rural Energy Offices. After the CER revenue has been provided by the CME, the Sichuan Rural Energy Office also ensures the distribution of the revenues to the individual households and the service network.

Each CPA under the PoA has two CPA implementers:

- Chengdu Oasis Science & Technology Co., Ltd. (also acting as the CME)
- The Sichuan Rural Energy Office

2. Policy measure or stated goal of the PoA

Stated goal of the PoA is to enable the poor population of the rural areas in Sichuan to participate in the existing biogas subsidy programme provided by the Sichuan Rural Energy Office. The approach adopted to achieve this is twofold:

- a) **Financial support:** Although the existing subsidies promote the installation of household biogas digesters, the investment is not financially feasible. By offering an additional regular income generated by carbon credits, the PoA supports the households in closing the financial gap.
- b) **Technical support:** The PoA provides free technical service during start up and operation of the digesters. By this means low-income households, who much more than richer households cannot afford to allocate scarce financial resources in a sensitive technology, are guaranteed that they actually receive long-term benefits of their investment in the biogas systems. Thereby, not only the barrier for the initial installation of the digesters is overcome, but also the stability of the digester operation is improved after the equipment has been installed.

Expected outcome of the proposed programme is an increased distribution of digesters on the one side and a more reliable operation of the installed systems on the other side. Both effects contribute to the success of the existing subsidy programme and increase the achieved emission reductions.

As stated and explained above, the target group of the PoA are low-income families. By focusing on these groups, the PoA clearly facilitates additional and sustainable development and improves the living conditions of underprivileged farmers.

The total emission reduction achieved during this monitoring period is 854,697 tCO₂e.

A.1.1. Generic CPA(s)

Title, identification/reference number and/or version number of the generic CPA(s) of the PoA	Sectoral scope(s)	Applied methodology(ies) or combination of methodologies and/or standardized baseline(s)
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Title, identification/reference number and/or version number of the generic CPA(s) of the PoA	Sectoral scope(s)	Applied methodology(ies) or combination of methodologies and/or standardized baseline(s)
Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	Scope 1: Energy industries (renewable - / non-renewable sources) Scope 15: Agriculture	<p>AMS-I.C – “<i>Thermal energy production with or without electricity</i>” (version 19)¹ (EB61, Annex 16);</p> <p>AMS-III.R– “<i>Methane recovery in agricultural activities at household/small farm level</i>” (version 02)² (EB59, Annex 4);</p> <p>The combination of the methodologies AMS-III.R and AMS-I.C has been approved for the use within PoAs by the CDM Executive Board (EB) in its 53th meeting.</p> <p>Furthermore, AMS-III.R refers to AMS-III.D – “<i>Methane recovery in animal manure management systems</i>” (version 17)³ to calculate baseline and project emissions.</p> <p>To calculate emissions from fossil fuel combustion, the “<i>Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion</i>” (version 2)⁴ is used.</p>

A.1.2. Specific-case CPA(s) covered in this monitoring report

Reference number of the specific-case CPA included in the PoA as of the end of this monitoring period	Title, identification/ reference number and version number of the generic CPA to which the specific-case CPA applies	Crediting period dates of the specific-case CPA	Is this specific-case CPA covered in this monitoring report? (yes/no)
2898-0001	Sichuan Rural Poor-Household	10/05/2012 -	Yes

¹ <http://cdm.unfccc.int/methodologies/DB/JSEM51TG3UVKADPA25IPUHXJ85HE8A>

² <http://cdm.unfccc.int/methodologies/DB/JQHRMGL23TWZ081T6G7G1RZ63GM1BZ>

³ <http://cdm.unfccc.int/methodologies/DB/2C25M4WA2W2XCMG5ETXE2CBHZOPRZU>

⁴ http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-03-v2.pdf/history_view

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	09/05/2022	
2898-0002	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0003	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0004	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0005	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0006	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0007	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0008	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0009	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0010	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0011	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0012	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0013	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0014	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0015	Sichuan Rural Poor-Household	11/04/2013 -	Yes

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	10/04/2023	
2898-0016	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0017	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0018	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0019	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0020	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0021	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0022	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0023	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0024	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0025	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0026	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0027	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0028	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0029	Sichuan Rural Poor-Household	11/04/2013 -	Yes

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	10/04/2023	
2898-0030	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0031	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0032	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0033	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0034	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0035	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0036	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0037	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0038	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0039	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0040	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0041	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0042	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0043	Sichuan Rural Poor-Household	11/04/2013 -	Yes

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	10/04/2023	
2898-0044	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0045	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0046	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0047	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0048	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0049	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0050	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0051	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0052	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0053	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	11/04/2013 - 10/04/2023	Yes
2898-0054	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0055	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0056	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0057	Sichuan Rural Poor-Household	24/03/2014 -	Yes

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	23/03/2024	
2898-0058	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0059	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0060	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0061	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0062	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0063	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0064	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0065	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0066	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0067	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0068	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0069	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0070	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0071	Sichuan Rural Poor-Household	24/03/2014 -	Yes

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	23/03/2024	
2898-0072	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0073	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	24/03/2014 - 23/03/2024	Yes
2898-0074	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0075	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0076	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0077	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0078	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0079	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0080	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0081	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0082	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0083	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0084	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0085	Sichuan Rural Poor-Household	01/02/2015 -	Yes

	Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	31/01/2025	
2898-0086	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes
2898-0087	Sichuan Rural Poor-Household Biogas Development Programme, CPA Nb. SCHHBG-XXX-XXX, version 1.5	01/02/2015 - 31/01/2025	Yes

A.2. Contact information of the coordinating/managing entity (CME) and/or responsible persons(s)/entity(ies)

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CME: Chengdu Oasis Science & Technology Co., Ltd.

Entity responsible for completing the CDM-PoA-MR-FORM: UPM Umwelt-Projekt-Management GmbH;

guog@upm-cdm.eu, fuyy@oasispower.cn

This entity is not the CME in Appendix 1.

SECTION B. Implementation of PoA

B.1. Implementation of the management system of the PoA

>>

The PoA is managed, implemented, operated and monitored by the Coordinating Entity (CME) Chengdu Oasis Science & Technology Co., Ltd.. The CME takes care of all CDM related tasks. This includes the writing of all related documents, quantitative calculation of emission reductions, the management of CDM related procedures like validation, registration and verification, and the allocation of CER revenues for the distribution to the farmers and the technical service network.

The technical implementation of the digesters, the operation of the service network, as well as all necessary surveys and monitoring are undertaken by the Sichuan Rural Energy Office and their subsidiaries, the city, county and village level Rural Energy Offices. After the CER revenue has been provided by the CME, the Sichuan Rural Energy Office also ensures the distribution of the revenues to the individual households and the service network.

Each CPA under the PoA has two CPA implementers:

- Chengdu Oasis Science & Technology Co., Ltd. (also acting as the CME)
- The Sichuan Rural Energy Office

To manage the PoA and all included CPAs, the CME is maintaining several databases that hold all relevant information related to the implementation of all CPAs and their households.

The CPA database comprises the number of each CPA and the contact data for the employee in the City REO that is responsible for each CPA management. A household database has been set up to manage the necessary household data for each CPA, incl. household ID, household name, City, County, Town, Village, Digester ID, construction date, finish date, etc.

These databases are kept as electronic versions by the CME and backed up regularly. All data acquired within this data recording system will be kept at least until two years after the end of the crediting period of the PoA.

B.2. Implementation of single sampling plan(s)

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All the covered CPAs 2898-001 to 2898-0087 have this single sampling plan.

A. Sample Method

Simple Random Sampling (SRS) method is to be adopted at PoA level. Sampling frame is the full list households included under the PoA.

The unbiased estimation of total value and mean value are:

$$\bar{y} = \frac{1}{n} \sum_{i=1}^n y_i \quad (D.1)$$

$$p = \frac{a}{nm} \quad (D.2)$$

The unbiased variation estimators of $V(\bar{y})$ and $V(p)$ with a sufficiently small f are:

$$v(\bar{y}) = \frac{1-f}{n} s^2 = \frac{1-f}{n(n-1)} \sum_{i=1}^n (y_i - \bar{y})^2 \approx \frac{1}{n(n-1)} \sum_{i=1}^n (y_i - \bar{y})^2 \quad (D.3)$$

$$v(p) = \frac{1-f}{n-1} p(1-p) \approx \frac{1}{n-1} p(1-p) \quad (D.4)$$

Relative error of the sample is to be calculated by formula:

$$r = t_{0.05} \frac{\sqrt{v(\bar{y})}}{\bar{y}} \quad (D.7)$$

Where:

n	Sample size
f	Sampling fraction
N	Total size of population
s	Standard error
v	Variation of Sample
y_i	Observation of a sample household
\bar{y}	Mean value of sample
p	Proportion of the sample
q	Equals to 1-p
r	Relative error. Default is 10%.
$t_{0.05}$	1.96

B. Sample Size**Step 1: Confidence/precision**

The proposed PoA adopts the methodologies AMS I.C and AMS III.R. It is defined in *Standard For Sampling And Surveys For CDM Project Activities And Programme Of Activities, version 4* that a confidence/precision of 95/10 should be used if one survey covers several CPAs. Since this is the highest confidence/precision mentioned in the applied methodologies and standards, these values shall be used for the sample size calculation.

Step 2: Initial Sample size

For mean value, the following formula is to calculate the initial sample size n_0 :

$$n_0 = \frac{t^2 S^2}{r^2 \bar{Y}^2} \quad (E.1)$$

To determine population parameter S^2 and \bar{Y}^2 , the following options can be taken: (a) taking a small scale pre-survey small scale SRS pre-survey, or (b) reference of similar survey, or (c) double sampling scheme.

Where,

S	<i>Standard error of sample</i>
\bar{Y}	<i>Mean value of sample</i>
r	<i>Relative error. Default is 10%.</i>
$t_{0.05}$	<i>1.96</i>

For proportion, initial sample size n_0 can be calculated by formula:

$$n_0 = \frac{t^2 Q}{r^2 P} \quad (E.2)$$

$n_0 \approx 97$, while $t_{0.05} = 1.96$, $r = 10\%$, $P = 0.8$ and $Q = 1 - P = 0.2$.

Where,

P	<i>Proportion of sample</i>
Q	<i>$Q = 1 - P$</i>
r	<i>Relative error. Default is 10%.</i>
$t_{0.05}$	<i>1.96</i>

Step 4: Other considerations of sample size

Sample size should be corrected according to the size of target population N by formula:

$$n_1 = \frac{n_0}{1 + \frac{n_0}{N}} \quad (E.3)$$

Then, be corrected Respond Rate r_R (initially 90%) by formula:

$$n_2 = \frac{n_1}{r_R} \quad (E.4)$$

In case, the survey covers more than one expected parameters, conservatively, sample size n should not be less than the maximum calculated sample size of those indicators.

$$n \geq \max(n_1^1, n_2^2, \dots, n_2^n) \quad (E.5)$$

Using equations E.2, the sampling sizes for the proportional parameters (sludge application rate and rate of digesters still in operation) are calculated to be 97 as described above.

For the sampling of the number of pigs and the annual digester operation hours, the following parameters are estimated (for the application of equation E.1):

Number of pigs: Mean: 5 pigs; Standard Deviation: 3 pigs

Annual operation hours: 8,400 h; Standard Deviation: 1,200 h

Using these values and equation E.1 the sampling sizes for these two parameters are:

Pigs: 139

Operation hours: 8

As a conservative approach, a sample size of 200 is chosen. This is bigger than all calculated minimum sampling sizes.

Supplementary survey is needed, in case, the data analysis of the baseline survey shows the pre-defined sample size is not sufficient to fulfill the requirement of confidence/precision.

For the initial sampling, a total sampling size of 200 households have been included in the survey and 200 households have been sampled randomly from the involved 395,435 households via SRS method

As shown in the sampling results (Excel sheet provided to the DOE), for the proportional parameters (Proper sludge application ratio), 100% sludge of each sampled digester has been applied in land application to avoid methane emissions; for the monitoring parameters incl. average pig number $N_{LT,y}$, mean operation hours of each digester t , achieved relative error of 5.31% and 0.58% respectively under the confidence level of 95%. The monitoring of these parameters have met the confidence/precision of 95%/10%. The statistical quality is sufficient and no further survey has been conducted.

C.Procedures for Data Collection and Management

Selection and Training of Survey Staff. A Chinese survey plan, tools and training materials should be prepared before training activities. All survey staffs including county supervisors and interviewers are locally selected from county governmental agencies with at least 2 years of working experience in rural energy sector. Selected survey staffs needs to be trained and ensured clearly understanding of purpose, method, and procedures of baseline survey. Simulated test interview is required at the end of the training course, to ensure each trainee are qualified to undertaken household survey.

Prepare Sampling Frame. The HHs of the target CPA should be prepared according to the project plan. Potential problems should be considered and cross checked to ensure the quality of the sampling frame, such as none-coverage, blanks and duplicate listings.

Interview and Data Collection. The interview activity should be conducted by trained interviewer with the assistant of local (township or village) supportive staff. Up to 90% of respond rate is required according to the sampling design, accordingly, awareness of the project and data confidentiality is very important as precondition to get the farmers' cooperation. Respondent self-report is the main survey method, visual inspection is also needed as cross-check evident. Other cross-check methods are also welcomed to determine the accuracy of respondent self-report. Questionnaire should be filled by interviewer and confirmed by farmer, supportive staff and the interviewer himself. Memo and record is needed if altered.

Data Management and Quality Control.

a) Step 1: Supervisor Check

Supervisor of the county need to review all questionnaires collected from each interviewer. Data on the questionnaires need to be subjected to five kinds of checks: range checks

(outlier data), checks against reference data, skip checks, consistency checks and typographic checks.

b) **Step 2: Data Entry**

Data Entry Program should be used with suspect range and logical consistency triggers. One simple solution is to set up a spreadsheet data entry template with validity check triggers.

c) **Step 3: Data Check Algorithms**

Project data management software will check for inconsistencies, missing value, identification numbers, double data entry. One simple solution is to use sort and filter function of spreadsheet.

d) **Step 4: Analytical Checks:**

By basic descriptive statistic, the outliers can be easily figured out. Further statistical analysis can work out more characteristics of the data by professional analysis tools.

D. Data Security and Emergency Procedures

Considering the long-term data storage requirement, the monitoring sampling data, both and soft copy need to be stored carefully within the whole crediting period.

Two hardcopies of monitoring questionnaires need to be stored in CME offices in Beijing and Chengdu separately.

SECTION C. Post-registration changes to the PoA (including the generic CPA(s))

C.1. Corrections

>>

A correction was made for 2898-002 to 2898-053 during the first verification on the monitoring period ([10 May 2012 - 05 Jun 2013](#)).

The parameter $FC_{BL,y}$ and $FC_{PE,y}$ in the CPA-DDs of CPA 2898-0002 to CPA 2898-0053 should be the total coal consumption before and after installation for all the households in the entire CPA, but it was wrongly indicated as the average coal consumption per household in the original registered CPA-DDs. Therefore, a correction in the CPA-DDs of 2898-0002 to 2898-0053 was made, the value of $FC_{BL,y}$ and $FC_{PE,y}$ was corrected as the absolute coal consumption in the entire CPA. And the correction as a post –resigtration change was approved on 3rd Jan 2014.

Another correction was made for PoA DD, Generic DD, and CPA DDs for 2898-001 to 2898-087.

Issue: In the CPA-DDs, parameters $FC_{BL,y}$ (average annual coal consumption before the installation of the digesters) and $FC_{PE,y}$ (average annual coal consumption after the installation of the digesters) are fixed *ex ante*, however in the CPA-DDs, it also states that the data will be collected in a comprehensive baseline survey that is repeated tri annually. Discrepancy of information is found/shown here.

Clarification: The information above in the CPA-DDs was copied directly from the registered PoA-DD, whereas the requirement to repeat the baseline survey is at the PoA level. The new survey is meant to obtain the parameters for new CPAs. The survey will be repeated every three years, instead of tri annually. For the included CPAs with specific data, the parameters $FC_{BL,y}$ and $FC_{PE,y}$ are fixed *ex ante* in the whole crediting period of the CPAs.

Based on the clarifications above, corrections⁵ have been made as follows:

⁵ the clarifications and corrections are made based on direct commucation with EB on 26/11/2015 during last issuance process for this PoA for the monitoring period 01/03/2014 – 31/12/2014

- In the PoA-DD, the parameters $FC_{BL,y}$ and $FC_{PE,y}$ will be collected in a comprehensive baseline survey that is repeated every three years. The value will be determined and reported in the CPA-DDs specifically for the different CPAs. In addition, the value is fixed *ex ante* in the whole crediting period of each CPA in the CPA-DD.

- In the generic DD and CPA-DDs of CPA 2898-0001 to CPA 2898-0087, the parameters $FC_{BL,y}$ and $FC_{PE,y}$ has been collected in a comprehensive baseline survey and fixed *ex ante* in the whole crediting period of the CPAs.

C.2. Inclusion of a monitoring plan to the registered PoA-DD (including its generic CPA-DD(s)), if a monitoring plan was not included at the time of registration

>>

N/A. No inclusion of a monitoring plan to the registered PDD that was not included at registration has been made.

C.3. Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline

>>

N/A. No permanent changes have been made.

C.4. Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA

>>

N/A. No changes of the programme design of registered PoA have been made.

C.5. Types of changes specific to afforestation and reforestation activities

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N/A.

PART II - Specific-case component project activity(ies)

SECTION D. Description of specific-case CPA(s)

>>

D.1. Brief description of implemented specific-case CPA(s)

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A typical biogas digester system consists of different components such as inlet, inlet pipe, fermentation chamber, gas chamber storage, hydraulic chamber, movable cover and gas tube. The typical structure of a biogas digester applied under the proposed PoA is displayed in Figure 1.

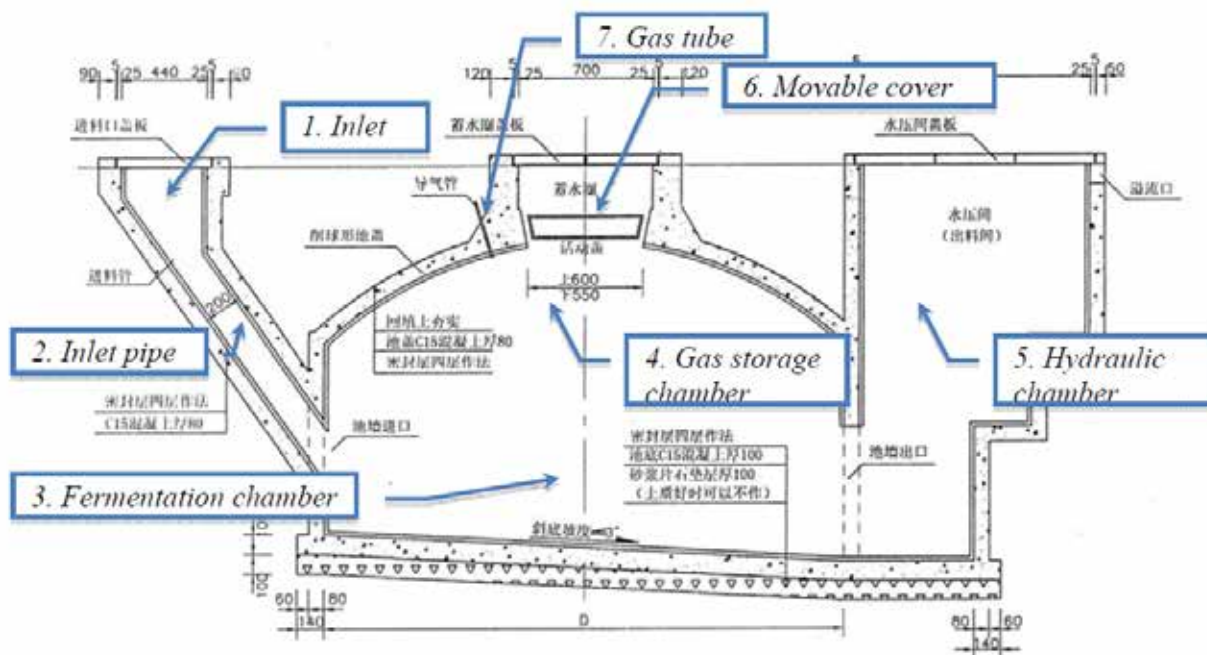


Figure 1: Typical design of a household biogas digester installed under the proposed PoA.

The technical flow is described in detail as follows:

a) Biogas generation and collection system

The design of biogas digesters is based on national standards established by the Chinese government.

According to the national standard NY/T 465-2001, the standard designs comprise digesters of 6 m³, 8 m³ and 10 m³. All digesters constructed in Sichuan and included into the PoA follow either this standard or an applicable national or provincial revision or updated that replaced the current standard. The digesters are constructed and finally approved by engineers accredited by the local Rural Energy System.

A list of the standards relevant for household biogas digesters in Sichuan province is shown in Table 1.

No.	Standard Code	Title
1.	GB/T 3606-2001	Domestic Biogas Stove
2.	GB/T 4750-2002	Collections of Standard Design Drawings of Household Anaerobic Digesters
3.	GB/T 4751-2002	Specification for Check and Acceptance of the Quality of Household Anaerobic Digesters
4.	GB/T 4752-2002	Operation Rules for Construction of Household Anaerobic
5.	NY/T 465-2001	Household-Scaled Biogas & Integrated Farming System-Specification on Design, Construction and Use for Southern Model
6.	NY/T1496.1-2007	Biogas Transmission System for rural household_Part 1- Thermoplastic Pipes
		Biogas Transmission System for rural household_Part 2- Thermoplastic Pipe Fittings
		Biogas Transmission System for rural household_Part 3i-- Thermoplastic Waves
7.	NY/T 1639-2008	Technical Criterion on Rural Biogas Digesters and Three Renovations
8.	NY/T 858-2004	Biogas Pressure Meter
9.	NY/T 859-2004	Desulfuricer household biogas
10.	NY/T 860-2004	Digester sealing Coatings
11.	DB51/T 770-2008(Sichuan)	The Criterion of Supportive Installation on Rural Household Biogas Digester

Table 1: Standards relevant for the construction of household biogas digesters in Sichuan Province.

The design and construction of the digesters is certified by technicians accredited by the Ministry of Agriculture. The digesters are usually installed below the pigpen and the inlet is directly connected to livestock room so that the dung can be drained into the digester directly without being stored under anaerobic conditions before. Additionally, a toilet is installed in each household next to the livestock room so that human excreta can be treated in the digester as well.

After being fed into the inlet of the whole system, the manure reaches the fermentation chamber where it is digested with a planned retention time of several months. Within the fermentation chamber, the main biogas generation takes place. The gas is stored in the upper part of fermentation chamber just above the slurry surface (the gas storage chamber). If more gas is generated than consumed, the pressure within the gas storage chamber increase and press the liquids into the hydraulic chamber. When the gas is extracted for utilization via the gas tube, the pressure decreases again and allows the liquids to flow back into the fermentation chamber. This system guarantees a strict separation of the gas storage and the hydraulic chamber where the sludge can be extracted and used as organic fertilizer.

By placing the digester tank below the barns, a relatively stable temperature can be achieved within the digester. As the generation of biogas requires a warm environment, this is important to ensure the availability of gas without additional heating of the digestate.

b) Biogas utilization system

After the biogas is extracted from the gas storage chamber, it is led into desulphurization and dehydration units to purify the gas and extract harmful substances. Eventually, the gas is fed into a biogas stove that can be used for cooking purposes, and thereby replace coal as fuel. To allow a proper gas flow control and completely shut the gas pipe when the stove is switched of, a pressure gauge is installed.

Special maintenance procedures including cleaning the sulfide capture device and periodic controls and maintenance of the burners (cooking stoves, rice cookers, heaters, etc.) have been developed to ensure effective operation of the biogas system and proper utilization of digested slurry throughout the lifetime of the digester. To ensure the proper implementation of these methods, the technical service team that is set up during the Programme Activity supports the participating households.

All main equipment in the proposed PoA is domestically produced; the proposed PoA involves no technology and installations from abroad.

c) Qualification of the biogas technicians and technical acceptance of the digesters

According a rural biogas construction regulation (Rural Biogas Construction Project Management Regulation), issued by the Ministry of Agriculture in 2003, rural household biogas digesters have to be constructed by certified technicians. In order to get certified, the engineers have to complete a training following a regulation by the Ministry of Labor and Social Security (Profession Standard Number: 5-99-02-01).

After the construction, all biogas digesters have to pass a technical acceptance procedure to ensure that they have been constructed properly. This procedure of this acceptance is defined by the provincial standard DB51/T 271.3 - 2009. The acceptance is performed and recorded by the local Rural Energy Offices.

d) Digester IDs

The biogas digesters in Sichuan are identified by a system of ID numbers. To attach the ID numbers to the digesters, two different systems are used in Sichuan. The IDs are either engraved into the wet concrete of the digesters during construction or are painted on the digesters itself or the wall of the rural household next to the digester. These ID numbers are unique to each digester and are used to clearly identify the single units for the PoA and this CPA .

The ID numbers are to be given to the digesters by the Rural Energy Offices after the final check and are listed on the technical acceptance records.

Within the currently included 87 CPAs of this PoA, a total number of 395,435 households have been equipped with biogas digesters. This is same with targeted number. Therefore 100% of the planned number of digesters has been installed.

The digesters put into operation after the completion of construction. The table below indicates the dates of the start of construction of the first digester and the operation of the last digester for each CPA.

CPA Referenece Number	Start of Construction of the first digester	Operation Date of the last digester
2898-0001	10/12/2010	20/02/2011

CPA Referenece Number	Start of Construction of the first digester	Operation Date of the last digester
2898-0002	28/10/2010	10/07/2012
2898-0003	28/10/2010	28/07/2012
2898-0004	28/10/2010	14/08/2012
2898-0005	28/10/2010	15/08/2012
2898-0006	28/10/2010	13/06/2012
2898-0007	28/10/2010	30/12/2011
2898-0008	28/10/2010	29/12/2011
2898-0009	28/10/2010	03/06/2012
2898-0010	29/10/2010	04/06/2012
2898-0011	28/10/2010	20/06/2012
2898-0012	28/10/2010	19/07/2012
2898-0013	28/10/2010	06/07/2012
2898-0014	28/10/2010	14/12/2012
2898-0015	28/10/2010	22/12/2012
2898-0016	28/10/2010	12/07/2012
2898-0017	01/11/2010	11/09/2011
2898-0018	29/10/2010	27/11/2011
2898-0019	30/10/2010	08/06/2012
2898-0020	29/10/2010	30/12/2011
2898-0021	29/10/2010	30/12/2011
2898-0022	29/10/2010	20/12/2011
2898-0023	28/10/2010	27/12/2012
2898-0024	28/10/2010	12/11/2012
2898-0025	30/10/2010	29/12/2011
2898-0026	29/11/2010	07/12/2011
2898-0027	23/11/2010	29/12/2011
2898-0028	01/11/2010	15/03/2012
2898-0029	28/10/2010	05/09/2012
2898-0030	28/10/2010	29/04/2012
2898-0031	29/10/2010	09/12/2012
2898-0032	29/10/2010	27/12/2011
2898-0033	28/10/2010	08/09/2012
2898-0034	29/10/2010	27/08/2012
2898-0035	28/10/2010	23/12/2012
2898-0036	29/10/2010	30/07/2012
2898-0037	28/10/2010	20/12/2012
2898-0038	29/10/2010	18/12/2012
2898-0039	29/10/2010	30/12/2012
2898-0040	01/11/2010	24/09/2011
2898-0041	29/10/2010	08/12/2011
2898-0042	02/11/2010	30/07/2012
2898-0043	10/11/2010	03/07/2012
2898-0044	28/10/2010	30/08/2012
2898-0045	29/10/2010	30/08/2012
2898-0046	29/10/2010	10/12/2012

CPA Referenece Number	Start of Construction of the first digester	Operation Date of the last digester
2898-0047	28/10/2010	18/02/2012
2898-0048	28/10/2010	29/08/2012
2898-0049	28/10/2010	31/08/2012
2898-0050	29/10/2010	30/06/2012
2898-0051	29/10/2010	14/08/2012
2898-0052	29/10/2010	27/07/2012
2898-0053	28/10/2010	31/01/2012
2898-0054	01/11/2010	20/12/2012
2898-0055	02/11/2010	21/08/2012
2898-0056	22/11/2010	30/09/2012
2898-0057	29/10/2010	08/12/2012
2898-0058	29/10/2010	25/09/2012
2898-0059	02/11/2010	30/08/2012
2898-0060	05/11/2010	25/09/2012
2898-0061	02/11/2010	25/09/2012
2898-0062	29/10/2010	30/09/2012
2898-0063	30/10/2010	19/11/2012
2898-0064	28/10/2010	25/11/2012
2898-0065	29/10/2010	15/01/2013
2898-0066	19/05/2011	15/06/2013
2898-0067	01/10/2011	20/04/2013
2898-0068	29/10/2010	06/05/2013
2898-0069	29/10/2010	23/06/2013
2898-0070	21/02/2012	30/11/2012
2898-0071	29/10/2010	15/12/2012
2898-0072	29/10/2010	22/12/2012
2898-0073	29/10/2010	05/03/2013
2898-0074	10/29/2010	04/01/2013
2898-0075	07/27/2011	21/01/2014
2898-0076	11/01/2010	17/05/2014
2898-0077	10/03/2011	05/11/2013
2898-0078	08/13/2011	11/12/2013
2898-0079	02/21/2011	17/07/2013
2898-0080	07/28/2011	31/12/2013
2898-0081	10/29/2010	21/05/2014
2898-0082	08/10/2011	04/09/2014
2898-0083	10/30/2010	10/04/2014
2898-0084	10/29/2010	30/12/2013
2898-0085	10/29/2010	17/03/2014
2898-0086	11/06/2010	10/06/2014
2898-0087	11/06/2010	14/05/2014

1,000 units have been installed under CPA 2898-0001. 3,350 units have been installed under CPA 2898-0073. Under CPAs 2898-0002 to 2898-0072, and 2898-0074 to 2898-0087, 4,601 units have been installed each.

As indicated, these ID numbers are unique to each digester and are used to clearly identify the single units for the PoA and this CPA. In addition, the biogas systems for all involved households newly installed under the CPA is not and will not be part of another CDM project or program activity and that no CERs will be claimed for the biogas system other than those to be claimed by the CME on behalf of the CPA implementer and the participating households respectively, which could be verified through written statement from the implementer of the technology SREO. The double counting is avoided.

During the monitoring period, no events or situation that may impact the applicability of the applied methodology occurred. Furthermore, the ongoing operation of the CPAs has not been interrupted during the monitoring period.

The total emission reduction achieved during this monitoring period is 854,697 tCO₂e.

D.2. Geographical references or other means of identification of the location of the specific-case CPA(s)

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The geographical boundary for the PoA is the administrative boundary of Sichuan province, China as shown in the following figure 2:

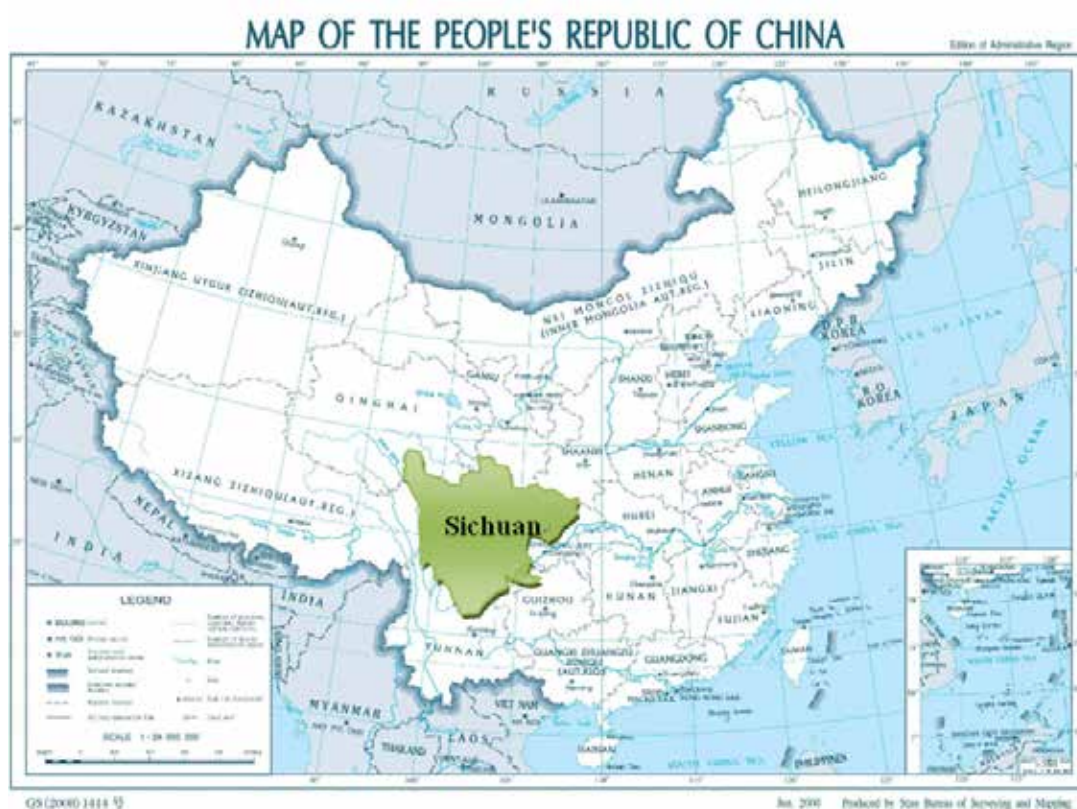


Figure 2: Location of the Sichuan Province in China.

All SSC-CPAs that will be included under the SSC-PoA will be within the defined geographical location of the SSC-PoA area and follow applicable national, provincial and/or sectoral policies and regulations in this region.

The list below shows each CPA and the city(ies) in which its households are located.

CPA reference number	City(ies)	Longitude	Latitude
2898-0001	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0002	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0003	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0004	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N

2898-0005	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0006	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0007	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0008	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0009	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0010	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0011	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0012	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0013	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0014	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0015	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0016	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0017	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0018	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0019	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0020	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0021	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0022	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0023	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0024	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0025	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0026	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0027	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0028	Guang'an	105° 57' - 107° 18' E	30° 01' - 30° 51' N
2898-0029	Guang'an	105° 57' - 107° 18' E	30° 01' - 30° 51' N
2898-0030	Guang'an	105° 57' - 107° 18' E	30° 01' - 30° 51' N
2898-0031	Guang'an	105° 57' - 107° 18' E	30° 01' - 30° 51' N
2898-0032	Suining	105° 03' - 106° 59' E	30° 10' - 31° 10' N
2898-0033	Suining	105° 03' - 106° 59' E	30° 10' - 31° 10' N
2898-0034	Suining	105° 03' - 106° 59' E	30° 10' - 31° 10' N
2898-0035	Dazhou	106° 40' - 108° 33' E	30° 19' - 32° 20' N
2898-0036	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0037	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0038	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0039	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0040	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0041	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0042	Meishan	102° 51' - 104° 30' E	29° 24' - 30° 22' N
2898-0043	Meishan	102° 51' - 104° 30' E	29° 24' - 30° 22' N
2898-0044	Meishan	102° 51' - 104° 30' E	29° 24' - 30° 22' N
2898-0045	Meishan	102° 51' - 104° 30' E	29° 24' - 30° 22' N
2898-0046	Neijiang	104° 16' - 105° 26' E	29° 11' - 30° 02' N
2898-0047	Leshan	102° 54' - 104° 15' E	28° 25' - 29° 56' N
2898-0048	Leshan	102° 54' - 104° 15' E	28° 25' - 29° 56' N
2898-0049	Zigong	104° 02' - 105° 16' E	28° 55' - 29° 38' N
2898-0050	Luzhou	105° 08' - 106° 28' E	27° 39' - 29° 20' N
2898-0051	Luzhou	105° 08' - 106° 28' E	27° 39' - 29° 20' N

2898-0052	Dazhou, Aba	100° 30' - 108° 33' E	30° 19' - 34° 19' N
2898-0053	Guang'an, Dazhou, Leshan	102° 54' - 108° 33' E	28° 25' - 32° 20' N
2898-0054	Luzhou	105° 08' - 106° 28' E	27° 39' - 29° 20' N
2898-0055	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0056	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0057	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0058	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0059	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0060	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0061	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0062	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0063	Suining	105° 03' - 106° 59' E	30° 10' - 31° 10' N
2898-0064	Neijiang	104° 16' - 105° 26' E	29° 11' - 30° 02' N
2898-0065	Leshan	102° 54' - 104° 15' E	28° 25' - 29° 56' N
2898-0066	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0067	Guang'an	105° 57' - 107° 18' E	30° 01' - 30° 51' N
2898-0068	Guangan, Dazhou, Meishan, Leshan, Luzhou, Aba and Ganzi	97° 22' - 108° 33' E	27° 39' - 34° 20' N
2898-0069	Mianyang and Meishan	102° 51' - 105° 43' E	29° 24' - 33° 03' N
2898-0070	Mianyang and Neijiang	103° 45' - 105° 43' E	29° 11' - 33° 03' N
2898-0071	Yibin, Suining and Neijiang	103° 36' - 106° 59' E	27° 50' - 31° 10' N
2898-0072	Yibin and Ziyang	103° 36' - 105° 45' E	27° 50' - 30° 39' N
2898-0073	Ziyang and Zigong	104° 11' - 105° 16' E	29° 41' - 29° 38' N
2898-0074	Yibin	103° 36' - 105° 20' E	27° 50' - 29° 16' N
2898-0075	Mianyang	103° 45' - 105° 43' E	30° 42' - 33° 03' N
2898-0076	Dazhou	106° 40' - 108° 33' E	30° 19' - 32° 20' N
2898-0077	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0078	Ziyang	104° 11' - 105° 45' E	29° 41' - 30° 39' N
2898-0079	Meishan	102° 51' - 104° 30' E	29° 24' - 30° 22' N
2898-0080	Neijiang	104° 16' - 105° 26' E	29° 11' - 30° 02' N
2898-0081	Luzhou	105° 08' - 106° 28' E	27° 39' - 29° 20' N
2898-0082	Guang'an, Dazhou, Aba	100° 30' - 108° 33' E	30° 01' - 34° 19' N
2898-0083	Guang'an, Leshan	102° 54' - 107° 18' E	28° 25' - 30° 51' N
2898-0084	Leshan, Luzhou	102° 54' - 106° 28' E	27° 39' - 29° 56' N
2898-0085	Mianyang, Meishan, Luzhou	102° 51' - 106° 28' E	27° 39' - 33° 03' N
2898-0086	Yibin, Mianyang, Suining, Neijiang	103° 36' - 106° 59' E	27° 50' - 33° 03' N
2898-0087	Yibin, Ziyang, Zigong	103° 36' - 105° 45' E	27° 50' - 30° 39' N

SECTION E. Post-registration changes to specific-case CPA(s)**E.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline**

>>

N/A. No temporary deviations from registered monitoring plan or applied methodology have been made.

E.2. Corrections

>>

N/A. No corrections from registered monitoring plan or applied methodology have been made

E.3. Changes to the start date of the crediting period of the specific-case CPA(s)

>>

N/A. No changes to the start date of crediting period have been made.

E.4. Inclusion of a monitoring plan into the specific-case CPA(s) that was not included at registration

>>

N/A. No inclusion of a monitoring plan into the specific CPAs that was not included at registration has been made.

E.5. Permanent changes to the monitoring plan as described in the registered specific-case CPA-DD(s), applied methodology or standardized baseline

>>

N/A. No permanent changes have been made

E.6. Changes to project design of the specific-case CPA(s)

>>

N/A. No changes of the project design of registered project activity have been made

E.7. Types of changes specific to afforestation and reforestation specific-case CPA(s)

>>

N/A.

SECTION F. Description of the monitoring system of specific-case CPA(s)

>>

Apart of standard values and official publications, e.g. for annual average temperature and fuel NCVs, etc. The monitoring for this PoA contains a statistical survey of households that provides a representative sample for all CPAs.

For the monitoring of the PoA, a single sampling survey covers all included CPA. The management of this sampling survey happens on a central level:

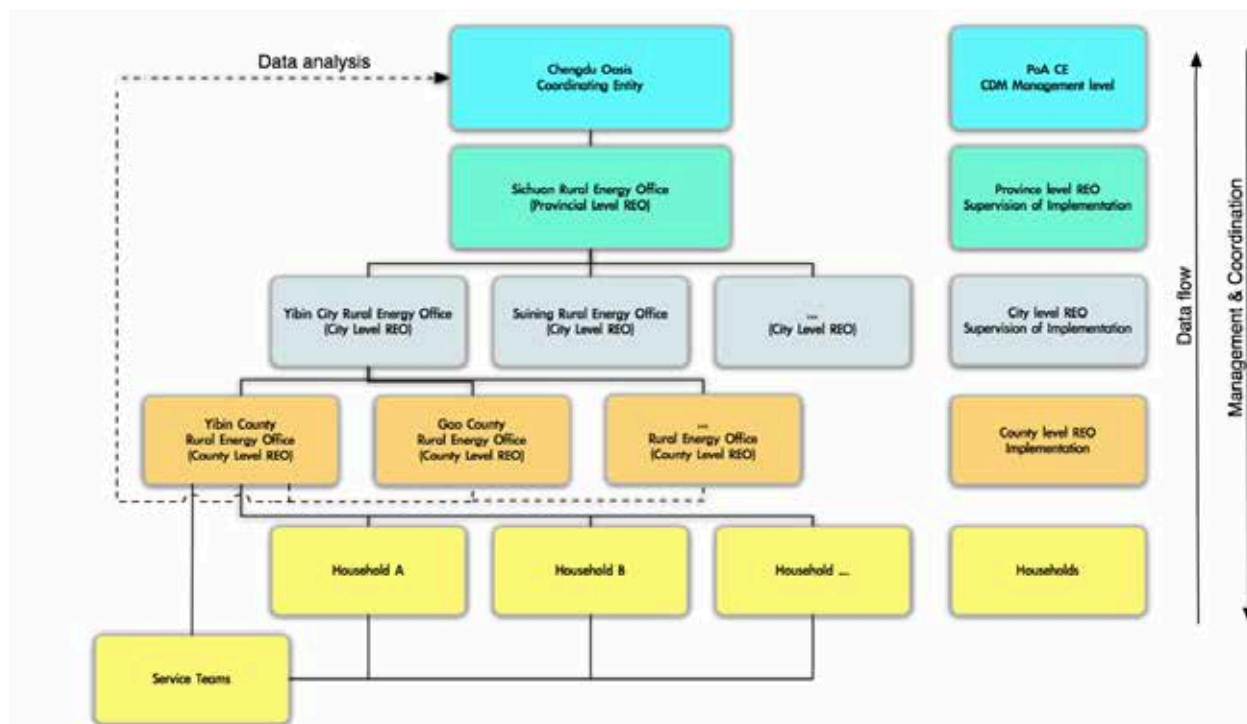


Figure 3: Collection and transferring of the household data to the CME for further analysis.

Using a central online platform, the CME determines the households to be included in the sampling using a simple random approach and submits the household references to the local data collectors. The local staff members of the Sichuan Rural Energy Office then visit the households and collect the required data. Using the same platform, the data is then typed into the database and transferred back to the CME that analyses the information and provides the collected data to the CDM Team to calculate the emission reduction.

The whole process of data collection is supervised by the responsible project manager at the CME.

In a second step, the outcome of the sampling survey is used to calculate the emission reduction for each CPA and prepare the monitoring report. This is done by a fully automated database system.

Both platforms, the web-interface for the local data collectors as well as the emission reduction calculation software are saved in a backup system regularly. A schematic diagram of the IT system can be seen in Figure 4:

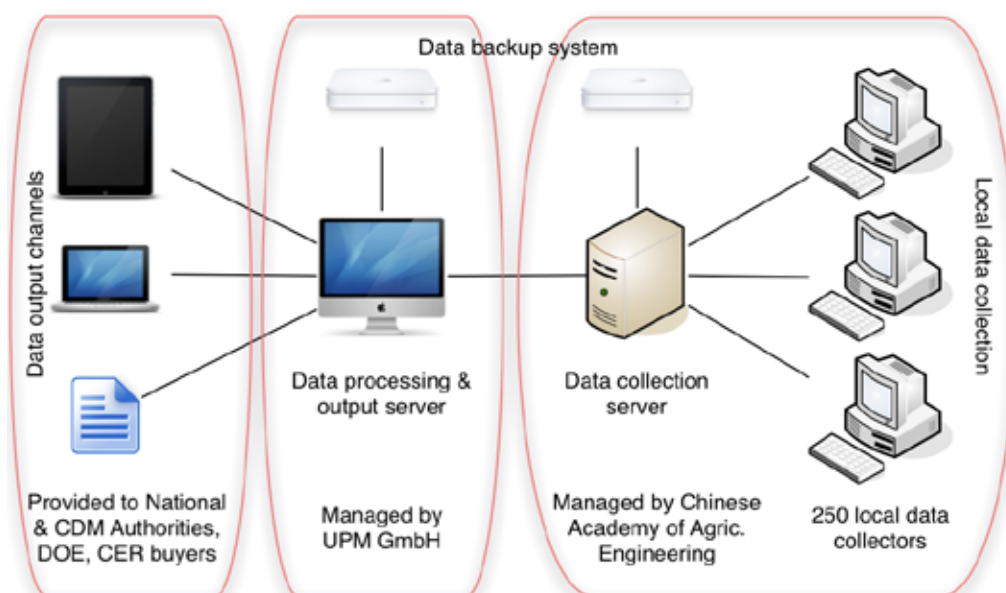


Figure 4: The IT system to collect and analyze the monitoring survey data.

SECTION G. Data and parameters

G.1. Data and parameters fixed ex ante, at registration, inclusion or renewal of crediting period

Data / Parameter:	$FC_{BL,y}$
Unit:	Tonnes of coal
Description:	Average annual coal consumption before the installation of the digesters.
Source of data:	Comprehensive baseline survey.
Value(s) applied:	CPA 2898-0001: 1,006.00 CPA 2898-0073: 3,244.78 All other CPAs: 4,456.48
Choice of data or measurement methods and procedures	Collected via a comprehensive baseline survey and met a level of accuracy of 95/10.
Purpose of data:	Calculation of baseline emissions.
Additional comment:	N/A

Data / Parameter:	$FC_{PE,y}$
Unit:	Tonnes of coal
Description:	Average annual coal consumption after the installation of the digesters.
Source of data:	Contrast group survey.
Value(s) applied:	CPA 2898-0001: 47.00 CPA 2898-0073: 91.52 All other CPAs: 125.70

Choice of data or measurement methods and procedures	Collected via a comprehensive baseline survey and met a level of accuracy of 95/10.
Purpose of data:	Calculation of project emissions.
Additional comment:	N/A

Data / Parameter:	$VS_{LT,y}$
Unit:	kg dry matter animal ⁻¹ year ⁻¹
Description:	Daily volatile solid excreted per animal.
Source of data:	IPCC 2006 Guidelines for National Greenhouse Gas Inventories, Volume 4, and Chapter 10, Table 10A-7 (swine).
Value(s) applied:	109.5
Choice of data or measurement methods and procedures	The applied value reflects the 2006 IPCC value for the daily solid excreted by Asian swines multiplied with 365 days in a year (=0.3*365 kg dry matter animal ⁻¹ year ⁻¹).
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	N/A

Data / Parameter:	$B_{0,LT}$
Unit:	m ³ CH ₄ kg ⁻¹
Description:	Maximum methane producing capacity for manure produced by livestock, of VS excreted.
Source of data:	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4, and Chapter 10, Table 10A-7 (swine).
Value(s) applied:	0.29
Choice of data or measurement methods and procedures	The applied value reflects the 2006 IPCC value for Asian swine. Although animals of western genetic origin account for a large share of the pigs in Sichuan province, the more conservative standard value for Asian swine is applied for all animals in the calculations of emission reduction of the proposed PoA.
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	N/A

Data / Parameter:	GWP_{CH_4}
Unit:	1
Description:	Global Warming Potential for CH ₄ .
Source of data:	para. 66 of EB69 meeting report
Value(s) applied:	25 from 01/01/2013 onwards
Choice of data or measurement methods and procedures	Default value
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	N/A

Data / Parameter:	D_{CH_4}
Unit:	kg/m ³
Description:	Conversion factor of m ³ CH ₄ to kilogram CH ₄ .
Source of data:	2006 IPCC guidelines, Volume 4, Chapter 10, Page 10.42.
Value(s) applied:	0.67
Choice of data or measurement methods and procedures	Default value
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	N/A

Data / Parameter:	UF_b
Unit:	
Description:	Model correction factor to account for model uncertainties (0.94)
Source of data:	Methodology AMS III.D
Value(s) applied:	0.94
Choice of data or measurement methods and procedures	Default value
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	N/A

G.2. Data and parameters monitored

Data / Parameter:	N_k
Unit:	1
Description:	Number of systems operating in each CPA.
Measured/ Calculated / Default:	Measured in monitoring sampling survey.
Source of data:	Monitoring sampling survey
Value(s) of monitored parameter:	2898-0001: 1,000 2898-0073: 3,350 All other CPAs: 4,601 The total number for the 87 CPAs during this monitoring period is 395,435.
Monitoring equipment:	-
Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	-

QA/QC procedures:	<p>This monitoring parameter is determined through a comprehensive monitoring survey that follows the latest guidelines of the EB. Currently, the Standard For Sampling And Surveys For CDM Project Activities And Programme Of Activities, version 04, the level of confidence should be at least 95%, while the acceptable error is 10%.</p> <p>200 households have been randomly selected for interview and the interview was recorded in a form of questionanrie. According to the Survey list of the 200 samples and the questionnaire papers, all sampled 200 biogas digesters were under operation.</p> <p>The biogas system operational in the CPA has been checked and recorded by the local REO and reported to SREO. According to the written statement from SREO, the number of systems operating in CPA 2898-0001 is 1,000; The number of systems operating in CPA 2898-0002 to CPA 2898-0072 and CPA 2898-0074 to CPA 2898-0087 is 4,601 in each CPA; and the number of systems in CPA 2898-0073 is 3,350.</p>
Purpose of data:	Calculation of baseline & project emissions
Additional comment:	

Data / Parameter:	t
Unit:	hours
Description:	Mean annual operation hours of the digesters.
Measured/ Calculated / Default:	The figure is obtained through a sampling monitoring survey with a sampling size determined following the latest guidelines and the applied methodologies. To determine the annual running hours, the number and lengths of times when the digesters where not providing sufficient gas supply (during maintenance, cleaning, etc.) are recorded and with this input, the final value can be calculated.
Source of data:	Monitoring sampling survey
Value(s) of monitored parameter:	8,550.48(= operational days 356.27 * 24 hours per day)
Monitoring equipment:	
Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	
QA/QC procedures:	This monitoring parameter is determined through a comprehensive monitoring survey that follows the latest guidelines of the EB. Currently, the Standard For Sampling And Surveys For CDM Project Activities And Programme Of Activities, version 04, the level of confidence should be at least 95%, while the acceptable error is 10%.
Purpose of data:	None. The parameter is required to be monitored by the methodology without being used in any calculation.

Additional comment:	
Data / Parameter:	T
Unit:	°C
Description:	Mean annual temperature in city k. This parameter determines the emission factors of the existing manure management systems.
Measured/ Calculated / Default:	This value is obtained each year from the latest officially published data available. City-specific data is taken to guarantee a precise and suitable value to be applied for each manure management system.
Source of data:	Sichuan Statistical Yearbook of 2015, listing annual average temperatures for the year 2014.
Value(s) of monitored parameter:	Bazhong: 17 Chengdu: 16 Dazhou: 17.6 Deyang: 16.7 Guang'an: 17.2 Guangyuan: 16.7 Kangding: 7.7 Leshan: 17.8 Luzhou: 17.6 Maerkang: 9.6 Meishan: 17.4 Mianyang: 17.4 Nanchong: 17.8 Neijiang: 17.4 Panzhuhua: 21.5 Suining: 17.1 Xichang: 17.9 Yaan: 16.3 Yibin: 18.2 Zigong: 18.3 Ziyang: 17.4
Monitoring equipment:	
Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	
QA/QC procedures:	This data is taken from the latest available official publication.
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	

Data / Parameter:	$MCF_{j,k}$
Unit:	%
Description:	Methane conversion factors for each manure management system j in climate region k.

Measured/ Calculated / Default:	This value is determined annually for CITIES based on the mean annual temperature and the standard values provided in IPCC 2006 Guidelines for National Greenhouse Gas Inventories, Volume 4, Chapter 10, Table 10.17 (swine). While the temperature ranges listed there, should cover most climate conditions, the guideline advises the PP to utilize the end-of-range (i.e., 10 or 28 degree) for areas that have extreme high or low annual average temperatures outside the 10 to 28 degree Celsius range. Therefore, the end-of-range is applied for such cases. The value applied is chosen depending on the mean annual temperature (Parameter ID M04 of the registered PoA-DD) in the specific climate region for each manure management system.
Source of data:	IPCC 2006 Guidelines for National Greenhouse Gas Inventories, Volume 4, Chapter 10, Table 10.17. The mean annual temperature refers to Sichuan Statistical Yearbook of 2015, listing annual average temperatures for the year 2014.
Value(s) of monitored parameter:	Bazhong: 32 Chengdu: 29 Dazhou: 35 Deyang: 32 Guang'an: 32 Guangyuan: 32 Kangding: 17 Leshan: 35 Luzhou: 35 Maerkang: 17 Meishan: 32 Mianyang: 32 Nanchong: 35 Neijiang: 32 Panzhuhua: 50 Suining: 32 Xichang: 35 Yaan: 29 Yibin: 35 Zigong: 35 Ziyang: 32
Monitoring equipment:	-
Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	-
QA/QC procedures:	This data is taken from the latest available official publication.
Purpose of data:	Calculation of baseline emissions.
Additional comment:	

Data / Parameter:	$N_{LT,y}$
Unit:	1
Description:	Annual average number of animals of type LT in year y (numbers).

Measured/ Calculated / Default:	The number of animals is determined based on the number of pigs per households and the number of households in a given CPA.
Source of data:	Monitoring sampling survey
Value(s) of monitored parameter:	4.30
Monitoring equipment:	-
Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	-
QA/QC procedures:	This monitoring parameter is determined through a comprehensive monitoring survey that follows the latest guidelines of the EB. Currently, the Standard For Sampling And Surveys For CDM Project Activities And Programme Of Activities, version 04, the level of confidence should be at least 95%, while the acceptable error is 10%.
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	

Data / Parameter:	Proper sludge application ratio
Unit:	N/A
Description:	Land application of digestate from biogas digesters to avoid anaerobic digestion.
Measured/ Calculated / Default:	Sampling monitoring survey with a sampling size determined following the latest guidelines and the applied methodologies. By interviewing the sample households, a factor of correct sludge application (not resulting in methane emissions) is determined. In case a single application has not been carried out according to the requirements, the respective household will not claim any emission reductions for the respective households. After the monitoring sample survey, a factor between 0 and 1 is determined to reduce the claimed emission reductions by the share of households that did not apply the sludge according to the requirements.
Source of data:	Monitoring sampling survey
Value(s) of monitored parameter:	100%
Monitoring equipment:	-

Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	-
QA/QC procedures:	This monitoring parameter is determined through a comprehensive monitoring survey that follows the latest guidelines of the EB. Currently, the Standard For Sampling And Surveys For CDM Project Activities And Programme Of Activities, version 04, the level of confidence should be at least 95%, while the acceptable error is 10%.
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	

Data / Parameter:	$EF_{CO_2,i,y}$
Unit:	tCO ₂ /TJ
Description:	Emission Factor of raw coal
Measured/ Calculated / Default:	National publications of emission factors are followed every monitoring period. If the Chinese DNA should publish updated or changed data, this value is updated.
Source of data:	Official data from Chinese DNA: http://cdm.ccchina.gov.cn/archiver/cdmcn/UpFile/Files/Default/20150317120351621130.pdf
Value(s) of monitored parameter:	87.30
Monitoring equipment:	-
Measuring/ Reading/ Recording frequency:	Annually
Calculation method (if applicable):	-
QA/QC procedures:	Official national data is applied
Purpose of data:	Calculation of baseline & project emissions.
Additional comment:	

Data / Parameter:	$NCV_{i,y}$
Unit:	GJ/t
Description:	Net Calorific Value of raw coal
Measured/ Calculated / Default:	National publications for the Net Calorific Value are followed every monitoring period. If the Chinese DNA should publish updated or changed data, this value is updated.
Source of data:	Official data from Chinese DNA: http://cdm.ccchina.gov.cn/archiver/cdmcn/UpFile/Files/Default/20150317120351621130.pdf

Value(s) monitored parameter:	of	20.908
Monitoring equipment:		-
Measuring/ Reading/ Recording frequency:		Official data publications are followed including a cross-check prior to the end of each monitoring period. If new data are published, it shall be checked if this data is within the range of the IPCC default values as provided in Table 1.2, Vol. 2 of the 2006 IPCC Guidelines. If the values fall below this range collect additional information from the testing laboratory to justify the outcome or conduct additional measurements.
Calculation method (if applicable):		-
QA/QC procedures:		Official national data is applied
Purpose of data:		Calculation of baseline & project emissions.
Additional comment:		

G.3. Implementation of specific-case CPA level sampling plan

>>

N/A. Single sampling plan was applied to all the covered CPAs in the monitoring period, refer to B.2 please.

SECTION H. Calculation of GHG emission reductions or net GHG removals by sinks

H.1. Calculation of baseline emissions or baseline net GHG removals by sinks

>>

Following the calculations laid out in the PoA-DD, the following equation is applied to calculate the baseline emissions from an existing animal manure management system.

$$BE_{CH_4,y} = GWP_{CH_4} \cdot D_{CH_4} \cdot UF_b \cdot \sum_{j,LT} MCF_j \cdot B_{0,LT} \cdot N_{LT,y} \cdot VS_{LT,y} \cdot MS\%_{BL,j}$$

1

Where:

$BE_{CH_4,y}$	Baseline methane emissions in year y (tCO ₂ e)
GWP_{CH_4}	Global Warming Potential for CH ₄ (25 from 01/01/2013 onwards)
D_{CH_4}	CH ₄ density (0.00067 t/m ³ at room temperature (20 °C) and 1 atm pressure)
UF_b	Model correction factor to account for model uncertainties (0.94)
j	Index for animal manure management system. As – according to the applicability criteria - all households use pits to store the animal manure, this index is used for the different climate conditions on a city basis. As most of the CPAs only cover households in one city (refer section A.2), this index will only cover one city.
LT	Index for all types of livestock
MCF_j	Annual methane conversion factor (MCF) for the baseline animal manure management system j. To pay respect to different annual mean temperatures in the covered region, the pits in different cities are considered different manure management systems with different MCF values.
$B_{0,LT}$	Maximum methane producing capacity for the volatile solid generated for animal

	type LT ($m^3 CH_4(kgdm)^{-1}$)
$N_{LT,y}$	Annual average number of animals of type LT in year y (numbers). The number of animals will be determined based on city averages of the number of pigs per households and the number of households in each city (=climatic region).
$VS_{LT,y}$	Volatile solids for livestock LT entering the animal manure management system in year y (on a dry matter weight basis, kg dm/animal/year)
$MS\%_{BL,j}$	Fraction of manure handled in baseline animal manure management system j. As the index j is covered the different climate conditions of the cities, this fraction reflects the share of animals in a climatic region to the total number of animals.

Additionally, the baseline emissions from coal replacement are calculated using formula 2:

$$BE_{CO_2,y} = \sum_i FC_{BE,i,j,y} \cdot COEF_{i,y} \tag{2}$$

Where:

$BE_{CO_2,y}$	Baseline carbon dioxide emissions from fossil fuel combustion in year y (tCO ₂ e)
$FC_{i,j,y}$	Quantity of fuel type i combusted in process j during the year y (mass volume or volume unit/yr). For this project, only baseline emissions from domestic use coal are considered in the calculation of emission reductions. This is a conservative approach that results in i and j being reduced to 1 (i: coal is the only type of fuel; j: only domestic coal consumption is considered).
$COEF_{i,y}$	Is the CO ₂ emission coefficient of fuel type i in year y (tCO ₂ /mass or volume unit). This will be calculated using national data.

As the available data is not sufficient for option A, offered by the tool to calculate $COEF_{i,y}$, option B is chosen:

$$COEF_{i,y} = NCV_{i,y} \cdot EF_{CO_2,i,y} \tag{3}$$

Where:

$COEF_{i,y}$	Emission coefficient of fuel type i(tCO ₂ /mass or volume unit)
$NCV_{i,y}$	Is the weighted average net calorific value of the fuel type I in year y(GJ/mass or volume unit). According to national data published by NDRC, at the time of PDD writing, the NCV of raw coal is 20.908 GJ/t.
$EF_{CO_2,i,y}$	Is the weighted average CO ₂ emission factor of fuel type I in year y (tCO ₂ /GJ). According to the national data, the emissions factor for raw coal is 87.3 tCO ₂ /TJ. This value reflects the lower value of the 95% confidence level of the values provided in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and is therefore conservative.

With these input values, the emission coefficient used is $COEF_{i,y} = 1.825 \frac{tCO_2}{tcoal}$.

As the proposed project only accounts for the emission reductions due to the reduction of coal consumption according to the emission reductions described in methodology AMS I.C , the baseline emissions covered by methodology AMS I.C can be reduced to:

$$BE_{CO_2,y} = FC_{BE,y} \cdot NCV_{coal,y} \cdot EF_{CO_2,coal,y}$$

Where:

$BE_{CO_2,y}$	Baseline carbon dioxide emissions from fossil fuel combustion in year y (tCO ₂ e)
$FC_{BL,y}$	Quantity of coal combusted for domestic use in year y (mass volume or volume unit/yr).
$NCV_{coal,y}$	Is the weighted average net calorific value of the fuel type I in year y(GJ/mass or volume unit). According to national data published by NDRC, at the time of PDD writing, the NCV of raw coal is 20.908 GJ/t.
$EF_{CO_2,coal,y}$	Is the weighted average CO ₂ emission factor of raw coal in year y (tCO ₂ /GJ). According to the national data, the emissions factor for raw coal is 87,300 tCO ₂ /TJ. This value reflects the lower value of the 95% confidence level of the values provided in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and is therefore conservative.

For the specific calculation of baseline emissions of each CPA within this monitoring period, the result of equation 1 is multiplied with three factors:

Time: To account for the length of the monitoring period, the length of the monitoring period in days divided by 365 is applied as a factor. For CPA 2898-0001, CPAs 2898-0002 to 2898-0073, the factor is 365/365 = 1. For CPA 2898-0074 to 2898-0087, the factor is 334/365 = 0.915.

Households with proper sludge application: To exclude households without proper sludge application, the baseline emissions are multiplied with the monitoring parameter “Proper Sludge Application”.

Number of households: Multiplying the baseline emissions per household with the number of households in the CPA leads to the baseline emissions in the entire CPA.

As result, the baseline emissions of each CPA are:

- 2898-0001: 2,589 tCO₂e
- 2898-0002: 11,596 tCO₂e
- 2898-0003: 11,596 tCO₂e
- 2898-0004: 11,596 tCO₂e
- 2898-0005: 11,596 tCO₂e
- 2898-0006: 11,596 tCO₂e
- 2898-0007: 11,596 tCO₂e
- 2898-0008: 11,596 tCO₂e
- 2898-0009: 11,596 tCO₂e
- 2898-0010: 11,596 tCO₂e
- 2898-0011: 11,300 tCO₂e
- 2898-0012: 11,300 tCO₂e
- 2898-0013: 11,300 tCO₂e
- 2898-0014: 11,300 tCO₂e
- 2898-0015: 11,300 tCO₂e
- 2898-0016: 11,300 tCO₂e
- 2898-0017: 11,300 tCO₂e
- 2898-0018: 11,300 tCO₂e
- 2898-0019: 11,300 tCO₂e

2898-0020: 11,300 tCO₂e
2898-0021: 11,300 tCO₂e
2898-0022: 11,300 tCO₂e
2898-0023: 11,300 tCO₂e
2898-0024: 11,300 tCO₂e
2898-0025: 11,300 tCO₂e
2898-0026: 11,300 tCO₂e
2898-0027: 11,300 tCO₂e
2898-0028: 11,300 tCO₂e
2898-0029: 11,300 tCO₂e
2898-0030: 11,300 tCO₂e
2898-0031: 11,300 tCO₂e
2898-0032: 11,300 tCO₂e
2898-0033: 11,300 tCO₂e
2898-0034: 11,300 tCO₂e
2898-0035: 11,596 tCO₂e
2898-0036: 11,300 tCO₂e
2898-0037: 11,300 tCO₂e
2898-0038: 11,300 tCO₂e
2898-0039: 11,300 tCO₂e
2898-0040: 11,300 tCO₂e
2898-0041: 11,300 tCO₂e
2898-0042: 11,300 tCO₂e
2898-0043: 11,300 tCO₂e
2898-0044: 11,300 tCO₂e
2898-0045: 11,300 tCO₂e
2898-0046: 11,300 tCO₂e
2898-0047: 11,596 tCO₂e
2898-0048: 11,596 tCO₂e
2898-0049: 11,596 tCO₂e
2898-0050: 11,596 tCO₂e
2898-0051: 11,596 tCO₂e
2898-0052: 10,333 tCO₂e
2898-0053: 11,421 tCO₂e
2898-0054: 11,596 tCO₂e
2898-0055: 11,300 tCO₂e
2898-0056: 11,300 tCO₂e
2898-0057: 11,300 tCO₂e
2898-0058: 11,300 tCO₂e
2898-0059: 11,300 tCO₂e
2898-0060: 11,300 tCO₂e
2898-0061: 11,300 tCO₂e
2898-0062: 11,300 tCO₂e
2898-0063: 11,300 tCO₂e
2898-0064: 11,300 tCO₂e
2898-0065: 11,596 tCO₂e
2898-0066: 11,596 tCO₂e
2898-0067: 11,300 tCO₂e
2898-0068: 11,406 tCO₂e
2898-0069: 11,300 tCO₂e
2898-0070: 11,300 tCO₂e
2898-0071: 11,310 tCO₂e
2898-0072: 11,436 tCO₂e
2898-0073: 8,324 tCO₂e
2898-0074: 10,612 tCO₂e
2898-0075: 10,340 tCO₂e
2898-0076: 10,612 tCO₂e

2898-0077: 10,340 tCO₂e
 2898-0078: 10,340 tCO₂e
 2898-0079: 10,340 tCO₂e
 2898-0080: 10,340 tCO₂e
 2898-0081: 10,612 tCO₂e
 2898-0082: 9,630 tCO₂e
 2898-0083: 10,356 tCO₂e
 2898-0084: 10,612 tCO₂e
 2898-0085: 10,403 tCO₂e
 2898-0086: 10,396 tCO₂e
 2898-0087: 10,509 tCO₂e

H.2. Calculation of project emissions or actual net GHG removals by sinks

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Following the calculations laid out in the PoA-DD, the following equation is applied to calculate the project emissions from physical leakage:

$$PE_{CH_4,y} = 0.10 \cdot GWP_{CH_4} \cdot D_{CH_4} \cdot \sum_{i,LT} B_{0,LT} \cdot N_{LT,y} \cdot VS_{LT,y} \cdot MS\%_{i,y} \tag{5}$$

Where:

$PE_{CH_4,y}$	Project methane emissions in year y (tCO ₂ e)
GWP_{CH_4}	Global Warming Potential for CH ₄ (25 from 01/01/2013 onwards)
D_{CH_4}	CH ₄ density (0.00067 t/m ³ at room temperature (20deg C) and 1 atm pressure)
i	Index for animal manure management system. As – according to the applicability criteria - all households use pits to store the animal manure, this index is used for the different climate conditions on a city basis.
LT	Index for all types of livestock
$B_{0,LT}$	Maximum methane producing capacity for the volatile solid generated for animal type LT (m ³ CH ₄ (kg dm) ⁻¹)
$N_{LT,y}$	Annual average number of animals of type LT in year y (numbers). The number of animals will be determined based on city averages of the number of pigs per households and the number of households in a given city.
$VS_{LT,y}$	Volatile solids for livestock LT entering the animal manure management system in year y (on a dry matter weight basis, kg dm/animal/year)
$MS\%_{i,j}$	Fraction of manure handled in system i in year y. As the index i covers the different climate conditions of the cities, this fraction reflects the share of household in a given city.

Additionally, the project emissions from coal consumption are calculated using formula 6:

$$PE_{CO_2,y} = \sum_i FC_{PE,y} \cdot COEF_{i,y} \tag{6}$$

Where:

$PE_{CO_2,y}$	Project carbon dioxide emissions from fossil fuel combustion in year y (tCO ₂ e)
$FC_{PE,y}$	Quantity of fuel type i combusted in process j during the year y (mass volume or volume unit/yr).

$COEF_{l,y}$	Is the CO ₂ emission coefficient of fuel type <i>l</i> in year <i>y</i> (tCO ₂ /mass or volume unit). This will be calculated using national data.
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The possible project emissions from electricity or other sources that are listed in the methodology are not applicable, as no electricity consumption occurs and no other greenhouse gases are emitted by the project activity.

According to the explanations for the baseline emissions, this equation can be further developed to:

$$PE_{CO_2,y} = FC_{PE,y} \cdot NCV_{coal,y} \cdot EF_{CO_2,coal,y}$$

7

Where:

$PE_{CO_2,y}$	Project carbon dioxide emissions from fossil fuel combustion in year <i>y</i> (tCO ₂ e)
$FC_{PE,y}$	Quantity of coal combusted for domestic use in year <i>y</i> (mass volume or volume unit/yr).
$NCV_{coal,y}$	Is the weighted average net calorific value of the fuel type <i>l</i> in year <i>y</i> (GJ/mass or volume unit). According to national data published by NDRC, at the time of PDD writing, the NCV of raw coal is 20.908 GJ/t.
$EF_{CO_2,coal,y}$	Is the weighted average CO ₂ emission factor of raw coal in year <i>y</i> (tCO ₂ /GJ). According to the national data, the emissions factor for raw coal is 87,300 tCO ₂ /TJ. This value reflects the low r value of the 95% confidence level of the values provided in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and is therefore conservative.

For the specific calculation of project emissions of each CPA within this monitoring period, the result of equation 5 is multiplied with two factors:

Time: To account for the length of the monitoring period, the length of the monitoring period in days divided by 365 is applied as a factor. For CPA 2898-0001, CPAs 2898-0002 to 2898-0073, the factor is 365/365 = 1. For CPA 2898-0074 to 2898-0087, the factor is 334/365 = 0.915..

Households with proper sludge application: To exclude households without proper sludge application, the project emissions are multiplied with the monitoring parameter “Proper Sludge Application”.

As result, the project emissions of each CPA are:

- 2898-0001: 315 tCO₂e
- 2898-0002: 1,282 tCO₂e
- 2898-0003: 1,282 tCO₂e
- 2898-0004: 1,282 tCO₂e
- 2898-0005: 1,282 tCO₂e
- 2898-0006: 1,282 tCO₂e
- 2898-0007: 1,282 tCO₂e
- 2898-0008: 1,282 tCO₂e
- 2898-0009: 1,282 tCO₂e
- 2898-0010: 1,282 tCO₂e
- 2898-0011: 1,282 tCO₂e
- 2898-0012: 1,282 tCO₂e
- 2898-0013: 1,282 tCO₂e

2898-0014: 1,282 tCO₂e
2898-0015: 1,282 tCO₂e
2898-0016: 1,282 tCO₂e
2898-0017: 1,282 tCO₂e
2898-0018: 1,282 tCO₂e
2898-0019: 1,282 tCO₂e
2898-0020: 1,282 tCO₂e
2898-0021: 1,282 tCO₂e
2898-0022: 1,282 tCO₂e
2898-0023: 1,282 tCO₂e
2898-0024: 1,282 tCO₂e
2898-0025: 1,282 tCO₂e
2898-0026: 1,282 tCO₂e
2898-0027: 1,282 tCO₂e
2898-0028: 1,282 tCO₂e
2898-0029: 1,282 tCO₂e
2898-0030: 1,282 tCO₂e
2898-0031: 1,282 tCO₂e
2898-0032: 1,282 tCO₂e
2898-0033: 1,282 tCO₂e
2898-0034: 1,282 tCO₂e
2898-0035: 1,282 tCO₂e
2898-0036: 1,282 tCO₂e
2898-0037: 1,282 tCO₂e
2898-0038: 1,282 tCO₂e
2898-0039: 1,282 tCO₂e
2898-0040: 1,282 tCO₂e
2898-0041: 1,282 tCO₂e
2898-0042: 1,282 tCO₂e
2898-0043: 1,282 tCO₂e
2898-0044: 1,282 tCO₂e
2898-0045: 1,282 tCO₂e
2898-0046: 1,282 tCO₂e
2898-0047: 1,282 tCO₂e
2898-0048: 1,282 tCO₂e
2898-0049: 1,282 tCO₂e
2898-0050: 1,282 tCO₂e
2898-0051: 1,282 tCO₂e
2898-0052: 1,282 tCO₂e
2898-0053: 1,282 tCO₂e
2898-0054: 1,282 tCO₂e
2898-0055: 1,282 tCO₂e
2898-0056: 1,282 tCO₂e
2898-0057: 1,282 tCO₂e
2898-0058: 1,282 tCO₂e
2898-0059: 1,282 tCO₂e
2898-0060: 1,282 tCO₂e
2898-0061: 1,282 tCO₂e
2898-0062: 1,282 tCO₂e
2898-0063: 1,282 tCO₂e
2898-0064: 1,282 tCO₂e
2898-0065: 1,282 tCO₂e
2898-0066: 1,282 tCO₂e
2898-0067: 1,282 tCO₂e
2898-0068: 1,282 tCO₂e
2898-0069: 1,282 tCO₂e
2898-0070: 1,282 tCO₂e

2898-0071: 1,282 tCO₂e
 2898-0072: 1,282 tCO₂e
 2898-0073: 933 tCO₂e
 2898-0074: 1,173 tCO₂e
 2898-0075: 1,173 tCO₂e
 2898-0076: 1,173 tCO₂e
 2898-0077: 1,173 tCO₂e
 2898-0078: 1,173 tCO₂e
 2898-0079: 1,173 tCO₂e
 2898-0080: 1,173 tCO₂e
 2898-0081: 1,173 tCO₂e
 2898-0082: 1,173 tCO₂e
 2898-0083: 1,173 tCO₂e
 2898-0084: 1,173 tCO₂e
 2898-0085: 1,173 tCO₂e
 2898-0086: 1,173 tCO₂e
 2898-0087: 1,173 tCO₂e

H.3. Calculation of leakage

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According to the explanations in the registered PoA-DD, the leakage emissions of this PoA and its CPAs are considered 0.

H.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Specific-case CPA reference number	Baseline emissions or baseline net GHG removals by sinks (tCO ₂ e)	Project emissions or actual net GHG removals by sinks (tCO ₂ e)	Leakage (tCO ₂ e)	GHG emission reductions or net GHG removals by sinks (tCO ₂ e) achieved in the monitoring period		
				Up to 31/12/2012	From 01/01/2013	Total amount
2898-0001	2,589	315	0	0	2,274	2,274
2898-0002	11,596	1,282	0	0	10,314	10,314
2898-0003	11,596	1,282	0	0	10,314	10,314
2898-0004	11,596	1,282	0	0	10,314	10,314
2898-0005	11,596	1,282	0	0	10,314	10,314
2898-0006	11,596	1,282	0	0	10,314	10,314
2898-0007	11,596	1,282	0	0	10,314	10,314
2898-0008	11,596	1,282	0	0	10,314	10,314
2898-0009	11,596	1,282	0	0	10,314	10,314
2898-0010	11,596	1,282	0	0	10,314	10,314
2898-0011	11,300	1,282	0	0	10,018	10,018
2898-0012	11,300	1,282	0	0	10,018	10,018
2898-0013	11,300	1,282	0	0	10,018	10,018

2898-0014	11,300	1,282	0	0	10,018	10,018
2898-0015	11,300	1,282	0	0	10,018	10,018
2898-0016	11,300	1,282	0	0	10,018	10,018
2898-0017	11,300	1,282	0	0	10,018	10,018
2898-0018	11,300	1,282	0	0	10,018	10,018
2898-0019	11,300	1,282	0	0	10,018	10,018
2898-0020	11,300	1,282	0	0	10,018	10,018
2898-0021	11,300	1,282	0	0	10,018	10,018
2898-0022	11,300	1,282	0	0	10,018	10,018
2898-0023	11,300	1,282	0	0	10,018	10,018
2898-0024	11,300	1,282	0	0	10,018	10,018
2898-0025	11,300	1,282	0	0	10,018	10,018
2898-0026	11,300	1,282	0	0	10,018	10,018
2898-0027	11,300	1,282	0	0	10,018	10,018
2898-0028	11,300	1,282	0	0	10,018	10,018
2898-0029	11,300	1,282	0	0	10,018	10,018
2898-0030	11,300	1,282	0	0	10,018	10,018
2898-0031	11,300	1,282	0	0	10,018	10,018
2898-0032	11,300	1,282	0	0	10,018	10,018
2898-0033	11,300	1,282	0	0	10,018	10,018
2898-0034	11,300	1,282	0	0	10,018	10,018
2898-0035	11,596	1,282	0	0	10,314	10,314
2898-0036	11,300	1,282	0	0	10,018	10,018
2898-0037	11,300	1,282	0	0	10,018	10,018
2898-0038	11,300	1,282	0	0	10,018	10,018
2898-0039	11,300	1,282	0	0	10,018	10,018
2898-0040	11,300	1,282	0	0	10,018	10,018
2898-0041	11,300	1,282	0	0	10,018	10,018
2898-0042	11,300	1,282	0	0	10,018	10,018
2898-0043	11,300	1,282	0	0	10,018	10,018
2898-0044	11,300	1,282	0	0	10,018	10,018
2898-0045	11,300	1,282	0	0	10,018	10,018
2898-0046	11,300	1,282	0	0	10,018	10,018
2898-0047	11,596	1,282	0	0	10,314	10,314
2898-0048	11,596	1,282	0	0	10,314	10,314
2898-0049	11,596	1,282	0	0	10,314	10,314
2898-0050	11,596	1,282	0	0	10,314	10,314
2898-0051	11,596	1,282	0	0	10,314	10,314
2898-0052	10,333	1,282	0	0	9,051	9,051
2898-0053	11,421	1,282	0	0	10,139	10,139
2898-0054	11,596	1,282	0	0	10,314	10,314

CDM-PoA-MR-FORM

2898-0055	11,300	1,282	0	0	10,018	10,018
2898-0056	11,300	1,282	0	0	10,018	10,018
2898-0057	11,300	1,282	0	0	10,018	10,018
2898-0058	11,300	1,282	0	0	10,018	10,018
2898-0059	11,300	1,282	0	0	10,018	10,018
2898-0060	11,300	1,282	0	0	10,018	10,018
2898-0061	11,300	1,282	0	0	10,018	10,018
2898-0062	11,300	1,282	0	0	10,018	10,018
2898-0063	11,300	1,282	0	0	10,018	10,018
2898-0064	11,300	1,282	0	0	10,018	10,018
2898-0065	11,596	1,282	0	0	10,314	10,314
2898-0066	11,596	1,282	0	0	10,314	10,314
2898-0067	11,300	1,282	0	0	10,018	10,018
2898-0068	11,406	1,282	0	0	10,124	10,124
2898-0069	11,300	1,282	0	0	10,018	10,018
2898-0070	11,300	1,282	0	0	10,018	10,018
2898-0071	11,310	1,282	0	0	10,028	10,028
2898-0072	11,436	1,282	0	0	10,154	10,154
2898-0073	8,324	933	0	0	7,391	7,391
2898-0074	10,612	1,173	0	0	9,439	9,439
2898-0075	10,340	1,173	0	0	9,167	9,167
2898-0076	10,612	1,173	0	0	9,439	9,439
2898-0077	10,340	1,173	0	0	9,167	9,167
2898-0078	10,340	1,173	0	0	9,167	9,167
2898-0079	10,340	1,173	0	0	9,167	9,167
2898-0080	10,340	1,173	0	0	9,167	9,167
2898-0081	10,612	1,173	0	0	9,439	9,439
2898-0082	9,630	1,173	0	0	8,457	8,457
2898-0083	10,356	1,173	0	0	9,183	9,183
2898-0084	10,612	1,173	0	0	9,439	9,439
2898-0085	10,403	1,173	0	0	9,230	9,230
2898-0086	10,396	1,173	0	0	9,223	9,223
2898-0087	10,509	1,173	0	0	9,336	9,336
Total	963,389	108,692	0	0	854,697	854,697

H.5. Comparison of GHG emission reductions or net GHG removals by sinks with estimates in the included CPA-DD(s)

Specific-case CPA reference number	Value estimated in ex ante calculation in the included CPA-DD(s)	Actual values achieved by the specific-case CPA(s) during this monitoring period
2898-0001	2,278 ⁶	2,274
2898-0002	10,146	10,314
2898-0003	10,146	10,314
2898-0004	10,146	10,314
2898-0005	10,146	10,314
2898-0006	10,146	10,314
2898-0007	10,146	10,314
2898-0008	10,146	10,314
2898-0009	10,146	10,314
2898-0010	10,146	10,314
2898-0011	9,870	10,018
2898-0012	9,870	10,018
2898-0013	9,870	10,018
2898-0014	9,870	10,018
2898-0015	9,870	10,018
2898-0016	9,870	10,018
2898-0017	9,870	10,018
2898-0018	9,870	10,018
2898-0019	9,870	10,018
2898-0020	9,870	10,018
2898-0021	9,870	10,018
2898-0022	9,870	10,018
2898-0023	9,870	10,018
2898-0024	9,870	10,018
2898-0025	9,870	10,018
2898-0026	9,870	10,018
2898-0027	9,870	10,018
2898-0028	10,146	10,018
2898-0029	10,146	10,018
2898-0030	10,146	10,018
2898-0031	10,146	10,018
2898-0032	9,870	10,018
2898-0033	9,870	10,018
2898-0034	9,870	10,018
2898-0035	9,870	10,314
2898-0036	9,870	10,018
2898-0037	9,870	10,018
2898-0038	9,870	10,018

⁶ For the value estimated ex ante calculation in the included CPA-DDs, it's calculated based on the days in the monitoring period multiplied by the ex-ante ER value in the registered CPA-DDs. Please refer to the ER calculation sheet and the registered CPA-DDs

2898-0039	9,870	10,018
2898-0040	9,870	10,018
2898-0041	9,870	10,018
2898-0042	9,870	10,018
2898-0043	9,870	10,018
2898-0044	9,870	10,018
2898-0045	9,870	10,018
2898-0046	9,870	10,018
2898-0047	10,146	10,314
2898-0048	10,146	10,314
2898-0049	10,146	10,314
2898-0050	10,146	10,314
2898-0051	10,146	10,314
2898-0052	8,891	9,051
2898-0053	10,086	10,139
2898-0054	10,244	10,314
2898-0055	10,244	10,018
2898-0056	10,244	10,018
2898-0057	10,244	10,018
2898-0058	10,244	10,018
2898-0059	10,244	10,018
2898-0060	10,244	10,018
2898-0061	10,244	10,018
2898-0062	10,244	10,018
2898-0063	10,244	10,018
2898-0064	10,244	10,018
2898-0065	10,244	10,314
2898-0066	10,572	10,314
2898-0067	10,572	10,018
2898-0068	10,154	10,124
2898-0069	10,244	10,018
2898-0070	10,244	10,018
2898-0071	10,256	10,028
2898-0072	10,395	10,154
2898-0073	7,565	7,391
2898-074	9,675	9,439
2898-075	9,374	9,167
2898-076	9,374	9,439
2898-077	9,374	9,167
2898-078	9,374	9,167
2898-079	9,374	9,167
2898-080	9,374	9,167
2898-081	9,374	9,439
2898-082	7,458	8,457
2898-083	9,657	9,183
2898-084	9,374	9,439
2898-085	9,374	9,230

2898-086	9,436	9,223
2898-087	9,562	9,336
Total	852,807	854,697

H.6. Remarks on difference from the estimated value in the included CPA-DD(s)

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Due to the change of GWP of CH₄, the actual value achieved during this monitoring period is 854,697tCO₂e (GWP is 21 up to 31/12/2012 and 25 from 01/01/2013 onwards), which is 0.22% more than values (852,807tCO₂e) estimated according to the registered PoA-DD and CPA-DDs, the main reason is:

GWP_{CH₄} of 21 for 2898-0001, 2898-0002 to 2898-0053 is used and GWP_{CH₄} of 25 for 2898-0054 to 2898-0087 is used; while the actual value achieved during this monitoring period, GWP of CH₄ 25 is used for this monitoring period.

Appendix 1. Contact information of coordinating/managing entity and responsible persons/entities

Project participant and/or responsible person/ entity	<input checked="" type="checkbox"/> coordinating/managing entity <input type="checkbox"/> Person/entity responsible for completing the CDM-MR-FORM
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