

Gold Standard-CDM PoA, Sichuan (China)

Clean biogas for poor rural households

Background

The rural areas in Sichuan Province are among the poorest in China. The average annual per capita income in rural Sichuan is approximately 500 Euro, and the province contains 43 counties that have been officially defined as national poverty counties in order to qualify for economic assistance from the government. The situation is now even worse, due to the heavy 2008 earthquake in Sichuan that claimed the lives of nearly 70,000 people and left another 4.8 million homeless. An estimated 12 million animals of productive livestock were also killed during the devastating event.

Project Description

UPM's Sichuan Biogas Programme of Activities (PoA) targets up to one million poor Sichuan farm households, installs efficient biogas digesters, and provides technical service for project equipment on their premises. These proven and reliable systems reduce methane emissions originating from the widely used animal manure storage pits and provide participating households with clean biogas for cooking, heating, and lighting.

The project provides reimbursement payments of CER revenues to farmers that otherwise could not afford the digester system despite an existing national Chinese subsidy scheme. This enables recipients to raise the necessary capital and start construction. The project also supports the development of certified technical service providers for the digester systems through the Rural Energy Offices in Sichuan and provides the project households with free annual maintenance service and on-demand technical support.

The combined reductions of methane emissions originating from the pits and carbon dioxide emissions from common household use of coal and wood will create a projected overall emissions reduction of approximately 20,000,000 tCO₂e for the entire PoA over the programme lifetime.



Biogas generated from animal manure and kitchen waste is used for cooking.

Key Facts

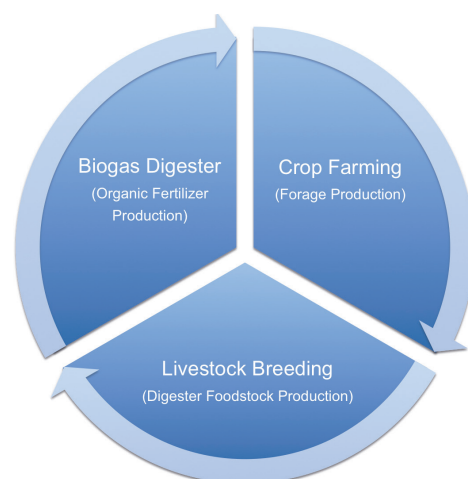
Project Type	Household Biogas
Location	China, Sichuan Province
Methodology	CO ₂ emissions from coal use in the baseline situation - AMS-I.C CH ₄ emissions from existing manure treatment - AMS-III.R
Carbon Credit Standard	CDM, Gold Standard (GS CERs)
PoA Reference Number	CDM Ref. 2898, GS ID. 1239
Validator (DOE)	TÜV Nord CERT GmbH
Development Status	CDM: Registered / Gold Standard: Registered
Registration Date	CDM: 11/04/2012 / Gold Standard: 22/04/2013
Date of First Credit Issuance	January 2014
Number of Households to be included	up to 1,000,000
Annual Credit Volume per CPA	approx. 9.6 k GS CERs / Total CPAs: 220
CPA Crediting Period	10 years



Sustainability Benefits

The use of biogas digesters and stoves has several advantages beyond GHG emissions reduction when compared to current prevailing habits of manure pit storage below animal confinements and the use of coal and/or firewood as cooking fuel. Specifically, the use of digesters in rural environments can benefit community members by:

- Reducing the time spent by women collecting firewood or travelling to purchase fuel.
- Reducing the amount of household income spent on cooking fuel.
- Improving the indoor air quality: The project provides smoke-free fuel and significantly reduces the concentration of SO₂, CO, CO₂, NH₃ and PM10. In regions with traditionally high coal consumption, respiratory diseases are an especially serious health issue for women, who cook and stay home during the day, and their children.
- Improved sanitation systems: The project provides a clean and proper way of treating animal manure; thus preventing zoonotic diseases and infections due to improper manure handling.
- Providing high-quality fertilizer: The manure treated in a biogas system is a much higher quality fertilizer than manure originating from incomplete digestion processes in the commonly used pits. It can therefore substantially increase the income of the project households.



Project Location

The project area is located in selected national poverty counties of China's Sichuan Province, such as Yibin and Zigong.

Contact

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UPM's household biogas PoA covers selected rural counties in Sichuan.