

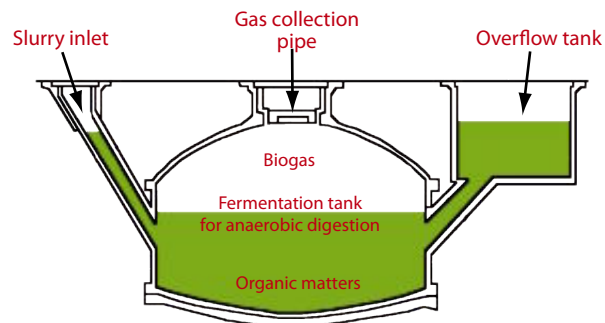
What is biogas?

Biogas, known as 'swamp gas' in Chinese, is the gas produced by the fermentation of animal or vegetable organic matters in an anaerobic environment (without oxygen).

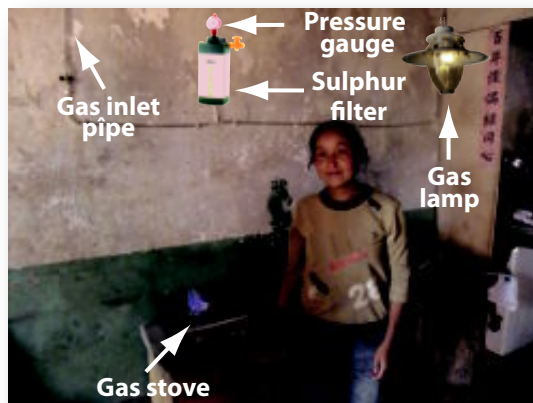
The fermentation (methanogenesis) is brought about in a digester and the resulting gas is a mix of methane (50 to 70%) and carbon dioxide, along with various amounts of water and hydrogen sulphide (H₂S).

Biogas equipment

➤ **The biodigester** (biogas tank) where the gas is produced:



➤ **The biogas system:** a pipe connects the top of the digester to various appliances working with biogas (stove, lamp, rice cooker, etc.) located inside the house of the beneficiary.



« On May 6th, 2009 I was the first of my village to undertake the construction of a biogas tank. The villagers really appreciate how useful biogas is, especially the children. Thanks to biogas, they can now have breakfast before going to school, whereas before it was impossible since it took almost one hour to start the coal stove.

Here, charcoal is very expensive, around 30 Yuan for 50 kg (€3.3) and 50 kg of charcoal only lasts 5 to 6 days. Now that we have a biogas tank, we consume less charcoal ».

Mr. LIU, 46, family of 6

3 good reasons to invest with ID

- ❑ **Local impact for populations and global benefits for the environment:** populations' living conditions are improving while fighting deforestation, pollution, global warming.
- ❑ **Targets' relevance:** disadvantaged populations, living in isolated areas, within a damaged environment.
- ❑ **Acknowledged experience and skills:** water and sanitation, renewable energies, carbon finance,

法国发起发展组织



Initiative Développement

Initiative Développement (ID) is a French nongovernmental organization set up in 1994 and headquartered in Poitiers.

For over 15 years, ID has been partnering underprivileged populations in the countries of the South by encouraging the emergence and strengthening of local development actors.

For more information:

www.id-ong.org/cn

To contact us:

id.chine@id-ong.org

in China : +86 (0) 871 318 15 57

in France : +33(0) 5 49 60 89 66

International partners of ID China Projects:



Lord Michelham
of Hellingly
Foundation

GoodPlanet



“Household Biogas Tanks” Projects
ID China

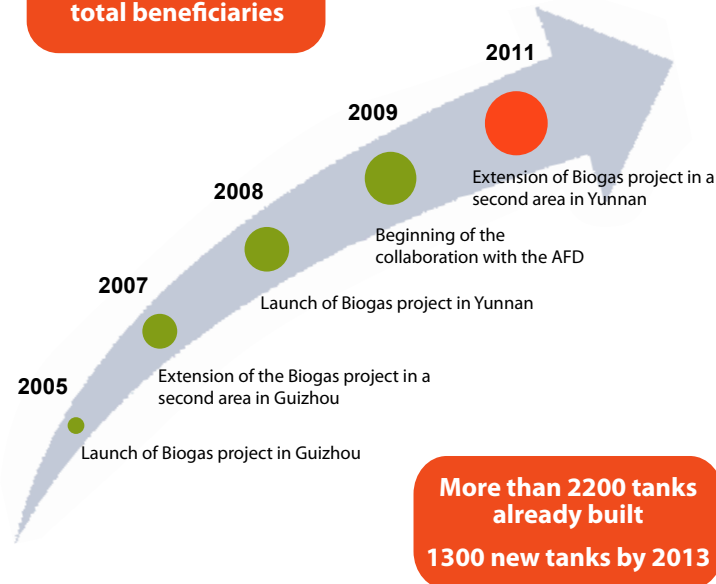
Where improved living conditions
meet environmental protection

More than 5 years of experience in biogas

Since 2005, ID set up three biogas projects in Yunnan and Guizhou. These provinces are characterised by a high level of poverty and a damaged environment.

The goal is to grant the poorest families access to clean and cheap energy, while taking part in the fight against global warming.

More than 18 000 total beneficiaries



In the rural environment of Guizhou and Yunnan, the main common fuels remain coal and firewood. These sources of energy are at the same time low-efficiency, expensive and harmful for the environment.

ID and GoodPlanet

The GoodPlanet Foundation funds clean development projects of a solidarity nature in developing countries. It is involved with ID through funding the biogas project in the Guizhou and Yunnan provinces (1300 and 1200 biogas tanks).

www.goodplanet.org

An integrated project

ID's project of biogas tank distribution main aim is to improve the life of rural populations that have a limited access to energy. ID's biogas projects thus include:

- ↪ **The construction of an anaerobic digester** of 8 to 10m³
- ↪ **The construction of toilets and animal pens** above the tank, connected to the digester wherever possible
- ↪ **Training the beneficiaries of our projects** for a good use of biogas and a proper operation of the tank, its maintenance, as well as hygiene and environmental issues



Toilets connected to the tank



Inside a pen connected to the tank

How much does a biodigester cost?

The total cost of an 8m³ tank with toilets is around €280. ID provides part of the construction materials (sand, cement, steel) as well as the utilizing system (pipes, cookers, lamps, etc.). The labour is taken care of by the villagers (digging of the pit and construction work of the tank) helped by technicians from ID's team.

The construction of a tank with bricks and cement takes an average of 12 to 13 days' work to which 5 to 6 days must be added to dig the hole in the ground.

In some cases, ID subsidises an animal pen for an amount of €250.

Economical and social benefits

- ❑ **Clean and easy-to-use energy to cook and provide lighting:** 4 to 6 hours a day
- ❑ **Time saved on firewood collection**
- ❑ **Savings on coal purchase:** up to 800 Yuan (€90) of savings per year and per family, which amounts to 30% of the average annual income.
- ❑ **Production of a natural and free fertiliser** (after completion of the fermentation process)
- ❑ **Improvement of hygiene and sanitation:** construction of toilets connected to the tank
- ❑ **Improvement of air quality inside the house** thanks to the reduction of coal consumption, replaced by biogas

Environmental benefits

- ❑ **Each tank cuts the emission into the atmosphere of an average 3.5 tons of CO₂ per year** due to the fact that every day between 5 kg of coal or 8 kg of firewood are replaced by biogas
- ❑ **Fight against deforestation**

Carbon finance and biogas

ID Biogas projects allow beneficiaries to reduce their consumption in firewood and coal, hence reducing greenhouse gas emissions. The Emission Reductions (ERs) are sold on the voluntary carbon finance market.

ID's emission reductions are recorded in line with Gold Standard requirements. Gold Standard is an organization that certifies emission reductions traded on the voluntary market. This quality label was set up by NGOs and testifies to genuine added value in economic and social terms guaranteeing that the development is sustainable.

The income from emission reductions sales enables ID to provide long-term quality control of all its Biogas projects while investing in new environmental or community projects for the benefit of the most underprivileged populations.