

Technical Solutions

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Rural woman in Yucatan committed to healthy harvests and smoke-free cooking

Description of the project: In rural areas of Yucatán, the main economic activity is agriculture, a sector where women account for 70% of the workforce. They perform their daily work without any basic training, technology, financing and without rights over the land they cultivate. Climate change has made this problem even worse, making it more difficult to break the cycle of poverty. The goal of this project is to empower women by giving them access to natural resources in their homes through biodigesters, developing skills that improve their farming practices and reduce the risks of respiratory diseases and the time needed for gathering firewood, protecting the forests and stopping the use of chemical fertilizers. For this, 599 biodigesters have been installed in Yucatán's indigenous communities.

Climate impact: In 5 years, 432,897 m³ of biogas have been produced, reducing the use of firewood by 88%. Experience showed that manure transformed into energy eliminates a significant amount of CO₂. The biodigesters have reduced 7,892 tons of animal waste that would have ended up in the aquifer. They produce 37 million litres of biofertiliser a year, for a fertilization potential of approximately 567 ha/year, the equivalent of replacing 170,000 kg of synthetic fertilizers a year. This figure implies that the use of biofertilizer replaces the use of chemical fertilizers, as well as pesticides.

Gender impact: Biodigesters, mainly managed by women, provide home-made inputs that improve harvests and nutrition, breaking the cycle of extreme poverty and malnutrition in a period of climate change. Women participated in trainings and their voices were integrated into the generation of knowledge on climate change, rights and the use of clean energy. The adopted systems reduce women's health risks and their financial stress. They ensure energy and food safety, as well as the diversification of productive farming activities.

Scalability / replicability: The biodigesters can be replicated and are designed for small producers. They are mainly supplied with animal waste and require very little maintenance, helping the women and girls to save time to engage in other activities. The first storage and treatment centre, called U'Ka Muuk' Lu'um, has been established in 2017 and aims to enable knowledge replication. The consolidation of the centre will help small farmers find the tools and knowledge to disseminate sustainable cultural practices.



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