



Compressed Biogas (CBG) : Rwanda

Production and distribution of compressed biogas for Rwandan (peri)urban households

Project description

The initiative Compressed Biogas proposes to build large biogas plants that will continuously produce biogas from urban, domestic and industrial wastes. The biogas produced will be stored under pressure in gas cylinders for easy distribution to urban and peri-urban customers as alternative to charcoal and firewood.



Business model

The objective of CBG is to provide affordable biogas for poor households, targeting peri-urban and urban Rwandan households that are still using firewood and carbonised charcoal for heating and cooking.

Distribution will be through a network of sales representatives, existing hardware shopkeepers in focal commercial centres throughout the country.

Scaling up activities in 2011

- Establishment of partnership with equity investors.
- Construction and operating of 7 small biogas pilot plants.
- Environmental impact assessment required for the increased number of CBG plants.
- Scaling up the technology of the Compressed Biogas (high yield of biogas substrates, efficient production and storage technology, cheap gas cylinders, etc.).

Immediate needs

- Full technical feasibility study (funds, experts) to build on proof of concept.
- Financing and construction of the pilot plant for the compressed biogas.
- Financing of marketing and promotion activities (promotion, adverts, etc.).
- Development of management skills especially regarding the expansion plan (exploration of other markets nationally and in neighbouring countries).





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Partnership

- ❶ **DASSY Enterprise** is responsible for the general management, the feasibility study and the selling of the biogas.
- ❷ **INES Ruhengeri**: research and development of the technology.
- ❸ **National Domestic Biogas Programme**: technicians' training and product advertisement.
- ❹ **Rural Energy Foundation**: technical assistance in marketing, promotion and trainings for sales agents.
- ❺ **Indian Compressors Ltd**: supply of biogas compressors and test of the technology.



Social, environmental and economic impacts

Social impact: This initiative will create 32 new jobs at plants, 112 other jobs in distribution and raw materials collection. It will also have benefits in terms of health by providing a clean cooking fuel. Moreover, it will reduce the burden on women and girls in searching for and carrying firewood.

Environmental impact: The use of CBG will save more than 1 million tons of wood per year, which might otherwise be exploited as firewood and carbonised charcoal. This corresponds to the removal from the atmosphere of more than 54 thousand tonnes of CO₂.

Indoor pollution will be reduced and natural water contamination by biodegradable wastes will be avoided.

Economic impact: CBG will improve the economic situation of urban populations who will be able to save money and time through the use of a cheap and efficient cooking fuel. Moreover it will have positive impacts on other businesses at the supplier and distributor level.

Contact

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SEED Partners

SEED is hosted by the United Nations Environment Programme (UNEP). Other current partners are the United Nations Development Programme (UNDP); IUCN (International Union for Conservation of Nature); and the governments of Germany, India, the Netherlands, Norway, South Africa, Spain, the United Kingdom and the United States of America.



About the SEED Initiative

The SEED Initiative identifies and supports promising small scale social and environmental entrepreneurs around the globe, entrepreneurs that while working towards a greener economy also tackle poverty, marginalisation and social exclusion.

SEED provides these social entrepreneurs with know how and networks, taking the lessons learnt at local level up to decision-makers to promote evidence-based policy making.

More information: www.seedinit.org

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