Fixed Dome Biogas Plant by Mchau





Why to choose this solution?
The solution provides alternative and clean energy for cooking instead of firewood and charcoal. Cow dung is the raw material used to feed the biogas plant to produce biogas which is used for cooking.

Savings per day or production:
Time and manpower which was earlier used to fetch firewood is now used to do something else. In a case where firewood was used, cost incurred per day was not less than 3000 Tshs.

Cost in money and in own time to construct:
The size of this Biogas is 4 m3 and costs Tsh.1,050,000. Construction of such biogas took about two (2) weeks.

Lifetime:
10 -20 years

Maintenance needed:
Biogas require daily feeding of the feedstock.

Resources needed in use:
Cow dung

Problems and limits:
Biogas plant require daily feeding of the feedstock, in some area where water is scarce becomes a challenge

Where and how can you get it or make it?
Available in livestock keepers regions of Tanzania. The technology is disseminated by TaTEDO, Carmatec, etc.

Skills needed to produce, install. maintenance, use:
Construction and maintenance of Biogas requires a skilled technician.

How to use it:
https://linksharing.samsungcloud.com/yWZtn03gD4tW

How to maintain it:
https://linksharing.samsungcloud.com/yWZtn03gD4tW

Climate effect (if any):
Biogas provide renewable source of energy free from GHG emissions and indoor air pollution.

Where it is used and how many users are there?
Used by more than 1000 people in Households and institutions in Kilimanjaro and other parts of Tanzania

Why is it successful?
After installation the operation costs is minimal

If you can make it, a short description, typical problems, materials needed:
Not applicable, needs a skilled technician

How to make it (if possible):
N/A

How is it delivered and by whom?
Community sensitization, availability of masons for installation of the biogas plant and provision of after sale services contributed to its success. Main actors in dissemination are CSOs, government agency, private sector and Faith Based Organizations. Almost all of them were involved in awareness raising, capacity building and installation of biogas systems.

Successful financial model
Involvement of private sector in the market chain

What policies and strategies helped the success?
The Tanzania Energy policy of 2015 focuses to encourage development and use of alternative energy to biomass for cooking. Also implementation of the Tanzania national Domestic Biogas programme

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Sources:
TaTEDO/Carmatec

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Case from Catalogue of Local Sustainable Solutions in East Africa. Read more and see partners at localsolutions.inforse.org