

Activity Group 7

"Biogas"

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2019 Activities

- BiogasDoneRight® webinars
 - English and Spanish
 - Recordings available [online](#)
- Stocktaking report
 - Finalisation of Latin America and Caribbean (LAC) regional analysis

Stocktaking paper: Outline

- Introduction to biogas
- Methodology of SWOT analysis in three regions:
 - Africa
 - Latin America and the Caribbean
 - Asia
- Results and discussion
- Limitations and future research
- Conclusions

Stocktaking paper: results from LAC

- Important SWOT factors identified from interviews and secondary research for both household level...

Strengths

- Environmental co-benefits (that are not seen with other renewable energies)
- Production of digestate that can be used as fertiliser in vegetable gardens (reduced use of chemical fertiliser and better productivity)
- Energy access for cooking
- Time savings when replacing fuelwood for cooking
- Energy independence
- Valorisation of the organic waste of the family
- Reduction in GHG emissions

Weaknesses

- High costs of installation (need to also buy the new stove)
- Requires time and effort to operate and maintain the digester

Opportunities

- Availability of local materials for construction
- Improved health - replacement of fuelwood for cooking reduces respiratory diseases
- Availability of feedstock

Threats

- Competition with other energy sources that are easily accessible and cheap (e.g. LPG, solar and woodfuel)
- Lack of capacity on *how* to produce biogas (due to lack of capacity building initiatives)
- Biogas seen as 'last resort' after all other energy options due to the complicated operation maintenance of AD compared with other energy sources (e.g. LPG)
- Lack of understanding of the benefits of biogas
- Climatic conditions (including temperature, access to water) can influence productivity
- Programmes that give ADs for free are not sustainable as the farmer/household does not see the value and will not maintain/repair it properly
- Lack of training in formal educational institutes
- Lack of national businesses in value chain that provide biogas products and services (increased costs due to need for importation)
- Areas where ADs could be inviting are the poorest areas that cannot afford them

Stocktaking paper: results from LAC

- ...and productive use level level

Strengths

- Treatment/management of wastes and/or residues
- Reduction in GHG emissions
- Sale/use of digestate as organic fertiliser
- Reduction in contamination of waterbodies
- Reduction in contamination of soil
- Added value to waste streams

Weaknesses

- High initial investment cost
- Costly transportation of feedstock and diluted digestate
- Complicated technology that requires time and effort for maintenance
- Technology not adapted to the realities of the country
- High cost of advanced technologies for upgrading biogas
- Costly and inefficient technology for electricity generation

Opportunities

- Incentivising biogas through tax exemptions
- Creation of skilled employment with improved wages
- Fostering investment and providing income security through Power Purchase Agreements (PPAs)
- Alignment with NAMAs and UNFCCC commitments
- Greater access to international markets due to meeting environmental requirements and selling 'green' product
- Incentivising biogas through environmental regulations on waste treatment

Threats

- Incompatibility of animal husbandry
- Poor functioning of carbon credit markets (i.e. high transaction costs and low carbon value)
- Financing problems (i.e. high collateral/guarantees and lack of funding)
- No government incentives specifically for biogas
- Low cost of electricity means biogas is not competitive
- Subsidies for alternative fuels (e.g. LPG, heavy oil) means biogas is not competitive

Stocktaking report – case study in Argentina

Rank	Strengths	Weaknesses	Opportunities	Threats
1	Reduction in contamination of waterbodies	High initial investment cost	Fostering investment and providing income security through PPAs	Subsidies for alternative fuels (e.g. LPG, heavy oil) means biogas is not competitive
2	Treatment/management of wastes and/or residues	Costly transportation of feedstock and diluted digestate	Incentivising biogas through environmental regulations on waste treatment	Financing problems (i.e. high collateral/guarantees and lack of funding)
3	Reduction in contamination of soil	High cost of advanced technologies for upgrading biogas	Creation of skilled employment with improved wages	No government incentives specifically for biogas
4	Added value to waste streams	Costly and inefficient technology for electricity generation	Incentivising biogas through tax exemptions	Low cost of electricity means biogas is not competitive
5	Sale/use of digestate as organic fertiliser	Complicated technology that requires time and effort for maintenance	Alignment with NAMAs and UNFCCC commitments	Poor functioning of carbon credit markets (i.e. high transaction costs and low carbon value)
6	Reduction in GHG emissions	Technology not adapted to the realities of the country	Greater access to international markets due to meeting environmental requirements and selling 'green' product	Incompatibility of animal husbandry

- SWOT analysis based on online survey
- Participants of GBEP Bioenergy Week 2018

Next steps

- Finalisation of Stocktaking Report with regional analysis in Asia
 - To include a case study kindly contributed by Japan
- Further e-learning webinars