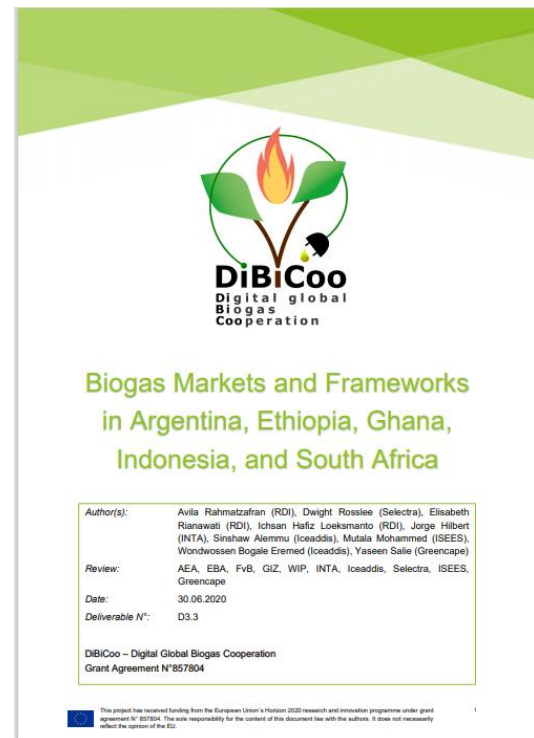


Increasing the Deployment of Biogas Technology in Global South

Biogas Markets and Frameworks in Argentina, Ethiopia, Ghana, South Africa, and Indonesia

- Lack of proven technology, high capital cost, and policy barriers keep the biogas industry in emerging economies as less competitive compared to fossil fuels or other renewable energies
- Engaging key biogas stakeholders and market actors to take part in the deployment actions are necessary to discover appropriate measures for removing market uptake barriers
- International support and cooperation will be invaluable to broaden the biogas market in emerging countries through common learning and knowledge-experience sharing



Report on biogas markets and frameworks in Argentina, Ethiopia, Ghana, Indonesia, and South Africa

Aligning with the main idea of DiBiCoo to trigger market uptake of biogas technologies in emerging countries, a robust and extensive study was developed to holistically assess the market and existing frameworks in Argentina, Ethiopia, Ghana, Indonesia, and South Africa. The market analysis was done by conducting a macro analysis in each country and considering political, economic, social, technological, and environmental variables. At the same time, a comprehensive look at the country's existing legal framework, relevant biogas regulations, financing, and incentives mechanism policies were investigated. The study then discovered concrete facts on legislation, permits procedures, financing, infrastructure, available expertise, as well as social, cultural, and sustainability issues. The full report is freely available here: [Report on Biogas-Markets and Frameworks in Argentina Ethiopia Ghana Indonesia and South Africa.pdf](#)

Main findings of the DiBiCoo Study on Biogas Markets and Frameworks

Conditions of biogas development in each country differed in terms of the potential feedstock sectors, central stakeholders that play major roles in the biogas sector, and challenges obstructing the development of renewable energy. In **Ethiopia**, biogas development mainly comes from small-scale (households) initiatives. The government takes most of the share in biogas-related investments, while private sector involvement in the biogas market has been minimal. Greater attractiveness of other renewable energy sources has led to the fact that the new entry of project developers is very unlikely in the biogas market.

Conversely, in **Ghana**, investments for biogas development mainly come from the private sector. Instead, the Ghanaian biogas sector struggles with inadequate feedstocks and poor maintenance on biogas technology to compete with other potential renewable energy sources such as solar PV and wind. Unfamiliarity with the biogas technology, underdeveloped infrastructure, and lack of successful reference projects or experience also remain as constraints and pose a high risk for biogas developers entering the market.

Indonesia, with the abundant feedstock of bio-waste, should deal with barriers caused by the political proactiveness on and preference of biofuel and not biogas as a new energy source. In addition, the high capital cost has caused new entrants in the national market to be less likely to penetrate this sector. Biogas developers should also own technical knowledge and experience portfolios to achieve project bankability and attract financial support.

Similarly, the nascent state of biogas development in **South Africa** is also influenced by the in-country regulatory environment, high upfront investment costs, and the necessity of a sustainable business model to ensure the projects are bankable. An abundance of lower cost of coal-based energy and low cost of landfilling waste have also limited the development of biogas technology. New market entrants are unlikely to do well without the support of a reputable South African partner and international technology partners to ensure the technology liability of the local companies.

Slightly different from the previous four countries, the biogas market in **Argentina** has shown notable growth over the last five years. One of the main reasons for this continuous growth is the intervention from Argentina's Renewable Energy Auction (RenovAr) program established in 2016 with the aim to attract investment on renewable energy projects. Other than that, incentive policies that cut down electricity costs through the Renewable Energy Futures Market (MaTER) mechanism and state law have succeeded in speeding up biogas deployment. However, national economic instability, inflation, and the high possibility to choose lower-priced technology still pose risks for new entrants in this sector.

About DiBiCoo

The Digital Global Biogas Cooperation (DiBiCoo) project is part of the EU's Horizon 2020 Societal Challenge 'Secure, clean and efficient energy', and is implemented by a consortium of 13 organizations from eight countries. The overall objective of the project is to prepare markets in Argentina, Ethiopia, Ghana, Indonesia, and South Africa for the uptake of sustainable biogas/biomethane technologies from Europe. DiBiCoo aims to mutually benefit importing and exporting countries through facilitating dialogue between European biogas industries and biogas stakeholders or developers from emerging and developing markets. The consortium works to advance knowledge transfer and experience sharing to improve local policies that allow increased market uptake. This will be facilitated through the guidance of 5 demo cases up to the investment stage, as well as a digital matchmaking platform and a capacity development program for improved networking, information sharing, and technical/financial competences.

More details: dibicoo.org

