

AFRICAN **QUARTERLY NEWSLETTER – JUNE 2025** BIODIGESTER COMPONENT PROJECT UGANDA



The ABC Project staff explains to a farmer how to maintain her biodigester in Lwengo District.

SEE - Clean Cooking

Foreword

Message from the Programme Manager

Welcome to our latest African Biodigester Component (ABC) newsletter edition!

ABC Uganda continues to spearhead efforts towards building a resilient, sustainable, and inclusive biodigester sector. This issue highlights the revised pathway focused on collaboration with key government ministries, the development of new guidelines for biodigester construction, the integration of gender equity and social inclusion, and stories of impact from communities that have embraced biodigesters.

Join us in exploring these milestones and how they are shaping a cleaner, greener future for Uganda.



Esther Nyanzi
ABC-Uganda Project Manager

PROJECT UPDATES

Driving Change: ABC Project Redefines Approach for Sustainable Biodigester Sector Growth

The African Biodigester Component project (ABC) has refined its strategic direction to position itself as a catalyst for building a sustainable and inclusive biodigester sector in the Uganda.

Central to this new approach is strengthened collaboration with line Ministries of Energy and Mineral Development (MEMD) and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and other key actors in the Biodigester sector. Together, all partners are to work towards developing a National Biodigester Sector Vision, to drive systemic

transformation across the sector. The new approach focuses on enhanced access to finance by leveraging partnerships with larger energy access initiatives, such as the World Bank's EASP/UECCC programme, to open new financing avenues for biodigester enterprises and end users.

On the demand side, the approach prioritises targeted awareness campaigns and the promotion of bio-slurry business cases. The revised strategy also integrates gender equity and social inclusion by implementing a dedicated developed gender action plan that specifically aims

to ensure that youth, women, and persons with disabilities can access and benefit from biodigester technologies.

Under the new approach, success is defined by more than just numbers.

While the African Biodigester Component (ABC) aims to install 4,000 biodigesters through its own implementation mechanism, an additional 4,000 installations are anticipated through strategic partnerships. Thus, the project aims to see more enhanced capacity of biodigester enterprises, and increased awareness among end users.

From Waste to Wealth: New Guidelines Promote Biogas and Bio-slurry Use



A biogas digester in Kawempe, Kampala being constructed as per the new Biogas Digester Construction Guidelines ©GIZ/Uribi Media

The ABC project, under the SEE-Clean Cooking Programme has completed the Biogas Digester Construction Manual in partnership with the Ministry of Energy and Mineral Development (MEMD), the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and the Uganda National Bureau of Standards (UNBS). The process involved the private sector actors, development partners, end-users, Biogas Digester Enterprises (BEs), technicians, and the implementing organisations, including GIZ, SNV, BSUL, who also

actively participated in the development process.

The manual provides instructions for effective design, construction, and maintenance of fixed dome biogas digesters and bio-slurry management for domestic use. It outlines strategies for bio-slurry management to maximise its potential as an organic fertiliser, thereby supporting efforts towards sustainable agriculture.

This revised edition addresses gaps in previous biogas digester standards by incorporating recent technological advancements, up-to-date research on bio-slurry and

enriched compost, and harmonised best practices. The goal is to enhance the efficiency, safety, and sustainability of biogas digester technology implementation in the country. The guidelines are expected to promote wider adoption of biogas for clean cooking and the use of bio-slurry as a natural fertiliser, particularly in rural, urban, peri-urban, and farming communities.

ABC Uganda, with support from MEMD, MAAIF, and UNBS, will lead the dissemination of the Biogas Digester Manual to relevant stakeholders.

Strengthening Biodigester Adoption through Cooperatives in Southwestern Uganda.

In its ongoing efforts to scale up biodigester adoption, ABC Uganda is partnering with agricultural cooperatives in Southwestern Uganda. Through a series of interactive engagement sessions, 58 farmers from 12 cooperatives in Kiruhura, Kazo, Bushenyi and Mbarara districts have expressed interest in acquiring biodigesters or accessing credit through SACCOs or pre-qualified financial institutions.

These sessions, supported by SNV, and BSUL teams highlighted the benefits of biodigesters in boosting soil fertility and productivity, while also emphasising the availability of farmer-friendly financing options such as SACCO loans and milk receipt-based financing. Importantly, one local SACCO and a biodigester enterprise



The Chairperson of Kaayana Dairy Cooperative in Rushere Town Council talks to members about biodigesters in April 2025.

joined the initiative, signalling growing support for the sector.

Key lessons from the activity included the need for stronger collaboration with local technicians and service providers, the establishment of community-based demonstration sites to build farmer confidence, and the design of simplified communication materials to increase awareness and understanding.

ABC Impact

Kugonza is Turning Waste into Wealth

In many communities across Uganda, the cost of household energy and declining soil fertility continue to present serious challenges to families trying to improve their livelihoods. Firewood remains the primary source of cooking energy for the majority of households, yet it is increasingly scarce and expensive due to widespread deforestation. At the same time, farmers struggle with poor crop yields caused by continuous soil degradation and limited access to affordable, effective fertilisers. These intertwined issues of energy poverty and low agricultural productivity leave many families trapped in a cycle of high expenses, low incomes, and environmental strain.

In Rwemisanga Parish, Kikuube District, Kugonza Michael knows this struggle all too well. For years, he depended on firewood for cooking coupled with declining productivity on his farm.

During an ABC project awareness campaign, Kugonza learned about biodigester technology, which produces biogas for cooking and bio-slurry as a byproduct. Inspired, he bought a biodigester.

Switching from firewood to biogas reduced his cooking energy costs from UGX 150,000 to UGX 65,000 (€39 to €17) per month, minimising deforestation and air pollution. This change eased his family's financial burden and provided a cleaner, healthier environment.



Kugonza in his vegetable garden. Vegetables such as cabbage, which he grows with bio-slurry, have greatly improved nutrition for Kugonza's household

He also discovered the untapped potential of bio-slurry, a nutrient-rich organic fertiliser, that boosted his farm's productivity. Vegetables like cabbages flourished, improving his family's nutrition and generating additional income. Encouraged by the results, he applied bio-slurry to his banana plantation, where it resulted in larger, healthier bunches and shortened maturity time.

The ABC Project under SEE – Clean Cooking promotes biodigesters, offering clean cooking energy and bio-slurry, an organic fertiliser.

Embracing Inclusion in Biodegestor Construction.

In a field dominated by men, Rose Kemigisa, is a team leader for company technicians at RESI limited, a Biodigester Enterprise.

Kemigisa attributes her motivation to her experiences with women, the ultimate beneficiaries of clean cooking technologies.

'I have a passion for clean cooking technologies. As a woman, I know the hardships that many women face when cooking in smoke-filled kitchens. It is unhealthy and causes cough. Through my work with RESI, I hope to become one of the champions of making these technologies more available in the communities,' she says.

The ABC Project adopted a Gender Action Plan which aims to increase women's participation in decision-making to 30%, raise awareness of biodigester benefits, and equally strengthen the capacity of both men and women to access opportunities. The plan incorporates strategies for data collection and interventions to address gender gaps, guaranteeing an inclusive trajectory for the biodigester sector.

ABC trains Biodigester Enterprises to make Gender, Equity and Social Inclusion (GESI) decisions in staffing, policy, and operations as one of the ways of building their capacity.



Rose Kemigisa is an engineer with RESI, a Biodigester Enterprise that works with the ABC Project



Kemigisa (left) during the ABC capacity-building exercise in Mbarara.

Meet the Biodigester Enterprises: Rural Environmental Sustainability Initiative Limited (RESI)

Market development is one of the key interventions of the ABC Project, with a strong focus on strengthening the biodigester supply chain. ABC works closely with Biodigester Enterprises (BEs), local businesses that construct and install biodigesters for end users, mostly farmers. Through targeted capacity building, the project equips these enterprises with practical skills in business management, sales, and credit readiness. This helps them improve their performance, grow their businesses, and deliver biodigester solutions that support clean energy use

and boost agricultural productivity in farming communities.

RESI is one of the BEs working with the ABC Project. Established in

2017, the company has made significant strides in promoting clean energy and sustainable agriculture through biogas technology. The company has trained



Herbert Murungi (centre), RESI Manager, helps to unclog the bio-slurry pipe in Katooke village, Kyenjojo District.

20 biogas masons and technicians in fixed dome, floating drum, and geo-membrane biogas technologies.

The BE reaches clients through 30 trained sales representatives in Kyenjojo, Kamwenge, Kyegegwa, Kabarole, Mubende, Bunyangabu, and Ntoroko districts. RESI has also installed 110 biogas plants

in 109 homes in Kyenjojo, Kamwenge, Kyegegwa, Kabarole, Mubende, Bunyangabu, Ntoroko, Kibaale, Ibanda, Mbarara, Wakiso, Kassanda, and Masindi. The biodigestors are installed at cost ranging from UGX 2.3 million to 3 million depending on the size and type of biodigester.

RESI's journey from an idea to a company has seen

it gain recognition with a 2019 SEED Low Carbon Award. The SEED Awards for Entrepreneurship in Sustainable Development is an annual awards scheme designed to identify the most innovative and promising locally led start-up eco-inclusive enterprises in developing and emerging economies.

'I Have Not Collected Firewood for Two Years'

For years, Hilda Yeija struggled with the rising costs of farm inputs especially chemical fertilisers and firewood for cooking. Their three-acre banana plantation was their main source of income, but yields were unpredictable, and expenses kept climbing. All that changed when she invested in a biodigester two years ago.

'I used to fret about firewood, I would make sure before the children went back to school, they would first collect a lot of firewood, but in less than two months it would be used up. Since I got biogas, it's been two years, and I haven't collected firewood. This gas is enough for cooking for my small family,' Hilda explains excitedly.



Hilda at her home, using biogas for cooking.

Hilda and her husband were hesitant at first to invest in a biodigester. After attending a training on clean energy initiatives and organic fertilisers from cow dung, they decided to give it a try. They opted for a small-scale biodigester that uses cow dung to produce biogas and bio-slurry, an organic fertiliser.

The first benefit she noticed was the biogas for cooking. No more spending hours gathering firewood or money buying charcoal. But it's the organic fertiliser that has excited them most. Within just one season of applying the fertiliser to their banana garden, they noticed a significant improvement in yields, with bigger bunches of bananas. Hilda swears even the texture of the matooke has since improved and is now softer when cooked. Today, their yields have increased by 40%, and they even sell the excess fertiliser to neighbours.

'Even our income has increased. I want to renovate my house. I have already started collecting materials. With time I will have a fully completed kitchen. That is because the money we spent buying firewood, we now save that money,' Mujurizi Denis, Hilda's husband.

They have no regrets about investing in a biodigester and encourage other farmers, especially women, to consider biodigesters. The family also plans to install a second biodigester for a chicken brooder.

Industry News

Powering Uganda's Green Future: Aligning the ABC Project with NDP IV and Global Climate Goals



President Yoweri Museveni (in white) accompanied by the First Lady, Janet Museveni, the Speaker of Parliament, Anita Among, the Deputy Speaker, Thomas Tayebwa, the Prime Minister, Robinah Nabbanja and selected ministers at the launch of the NDP IV at Kololo on Thursday, 5th June 2025.

As Uganda rolls out the Fourth National Development Plan (NDP IV), new opportunities are emerging to drive sustainable development through integrated, climate-resilient approaches. With its focus on clean energy and environmental stewardship, the African Biodigester Component (ABC) Project is well-positioned to contribute to two key programmes under NDP IV: Natural Resources, Environment, Climate Change, Land and Water Management and Sustainable Energy Development.

Launched in June 2025, the NDP IV comes with 18 programmes aimed at addressing Uganda's most pressing development challenges. Programme

#6 is the natural resources, environment, climate Change, land and water management while programme # 8 is the sustainable energy development.

The natural resources, environment, climate Change, land and water management programme aims to ensure sustainable management and utilization of land, environment and natural resources and effective response to climate change and other disasters. The key focus areas include but not limited to reducing the country's vulnerability to climate change; reduction of air and water pollution, strengthening capacity to tap climate finance. On the other hand, the sustainable energy development

programme aims to increase access to and consumption of reliable, affordable, clean, and modern energy services. The key focus areas include increase in primary energy consumption; increase in the proportion of population accessing electricity and reduction in the share of biomass energy used for cooking among others.

These two programmes are critical in the implementation of SDG #7 which provides for clean and affordable and clean energy, and article 6 of the Paris Agreement on climate change. Article 6 has three key components: namely.

1. Transfer of emission reductions,
2. Global carbon market mechanism under the UNFCCC; and
3. Cooperation beyond carbon markets, including technology transfer and knowledge sharing.

For initiatives like the ABC Project, the NDP IV presents a potential pathway to attract investment, scale up clean energy solutions like biodigesters, and strengthen climate resilience at the national and sub-national levels.

Boosting Biodigester Uptake: ABC Project Empowers Isingiro District Officials & Farmer groups Through Targeted Training



A cross section of participants during the training at Isingiro District.

To address gaps in biodigester use and maintenance in Isingiro District, the ABC project conducted a hands-on training from June 10–13, 2025. The training brought together 30 district extension officers, 11 community-based facilitators and 50 farmers at the Isingiro District Headquarters to build practical and theoretical knowledge on

biodigester technology.

The sessions, delivered by experts from SNV, BSUL, MEMD, and Adriani Agribusiness Company, covered clean energy benefits such as biogas for cooking and lighting, and the use of bio-slurry as organic fertilizer, animal feed, and pest repellent. Participants also learned about government policy frameworks and financial

access options for biodigester adoption.

As a result, 20 farmers expressed interest in installing biodigesters and the district pledged to integrate community mobilization for biodigester adoption into its workplan.

The approach will build on previous sessions and leverage trained DAOs as district-level host farmer to accelerate uptake and farmer outreach. The ABC-OFVI project has conducted bio-slurry awareness and application among government extension structures. Through sustained training, collaborative partnerships, and demonstration-led learning, ABC is paving the way for bio-slurry to become a reliable and traded fertilizer in Uganda. With continued support from districts and partners, ABC will scale outreach, foster innovation in slurry usage, and deepen its impact on soil fertility, farmer productivity, and climate resilience.

Upcoming events

- July 7 – 11, 2025: 12th Global Bioenergy Partnership Week, Kampala, Uganda
- Sept 30 – October 3, 2025: ABC Knowledge Exchange Event, Cotonou, Benin

THANK YOU!

Your feedback is valuable to us, as we strive to improve our newsletter, increase clean energy access and ensure food security. Please share your views via email to uganda@snv.org.

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