**BIOGAS ASSESSMENT PROJECT**

**Site ID: 40**

**Date: September 27, 2022**

**Interviewer:** Thanks for granting us the interview. I understand that [name redacted] is at Machinga hospital and it looks like he will be there for time. I understand he sustained serious injuries in the accident. So, we wish him well. Nonetheless, when I was coming, I didn’t know that he had been in hospital all this time. When I called him today, he has communicated that I should talk to you, because you know everything about the digester too. So, I hope you know a lot about it. Luckily enough, we have his son here, so you will be helping each other. First question, where did the digester originate from?

**Interviewee:** I do not know where it came from.

**Interviewer**: Who funded it?

**Interviewee**: I am not sure, but I think it’s a non-government organization and not the government because the people who came are not government officials from this community.

**Interviewer**: When was it built?

**Interviewee**: It was 4 years ago

**Interviewer**: Who built it? How many people came to install it?

**Interviewee**: One man built it from the installation company. He came a few times on a motorbike.

**Interviewer**: How many of you built it?

**Interviewee**: Eh, we were many, more than 10.

**Interviewer**: What was your role?

**Interviewee**: We were responsible for mobilizing animal manure and water. Every individual out of the 10 people contributed animal manure. Then, the installer advised us to make feedstock for the digester.

**Interviewer**: Why did 10 people take part in the process? I mean, did you hire them or something?

**Interviewee**: People were attracted to take part in the building process because the installers mentioned that the digester would be producing fertilizer. So, a number of people who wanted fertilizer contributed raw manure and took part in the installation process.

**Interviewer**: Oh, how did those 10 people come together?

**Interviewee**: The bona fide beneficiary, [name redacted], mobilized people who had manure, because he saw that he could not manage to feed it alone with the manure he had.

**Interviewer**: Who is [name redacted] to you?

**Interviewee**: Yes, he is my neighbor and my subject as well. I’m a senior and I rule over 16 chiefs in this area. All those mountains, all this area is under my control.

**Interviewer**: Okay, how was he selected as a beneficiary?

**Interviewee**: He wasn’t chosen because he is related to me, no. He’s not blood relative. Moreover, even though I’m a senior chief, I wasn't responsible for choosing the beneficiaries. The beneficiary were chosen at Traditional Authority (T/A) Nsanama court by Village Development Committees (VDCs). So, that’s what I know, and even if he were here, he would have said the same thing.

**Interviewer**: Did you know about biogas before?

**Interviewee**: No, I didn’t know anything about biogas. Plus, I didn’t go to school, so I had no chance of learning about it.

**Interviewer**: So you become aware of it when it came here?

**Interviewee**: When the digester came, I was in there. Moreover, I remember the installer said it needed something like a pump to make it produce gas for cooking and fertilizer from animal manure.

**Interviewer**: What type of training did you receive?

**Interviewee**: He didn’t receive any training at all. The digester was simply installed there, and he waited for the installers to come bring a pump, but they never came. He waited for a very long time to the extent in that termites started eating the bag. Then, he moved to another house, and then thieves stole the bag. But, it took years for this to happen.

**Interviewer**: So the bag was stolen?

**Interviewee**: Yeah, after he moved, the bag was just staying there, as he would not have moved with it because it was very heavy. So, after it was abandoned there, it was easy for thieves to take it out. He reported to me as a chief that the digester bag was stolen. I think it was a week after he moved. So, I went together to see what happened.

**Interviewer**: Why would someone steal a digester bag?

**Interviewee**: Maybe the thief wanted to use it as a sleeping mat, what else could you do with it? (laughs)

**Interviewer**: (Laughs) yeah

**Interviewee**: Or, maybe he wanted to use it as mat, so that people could seat on it as we have done here. As for other things, like the pipes and the stove, they still have them in their house as his child has said. I remember I light a butt of cigarette on the stove. It kind of worked, but the installers never followed it up, and that’s why they never managed to cook on it.

**Interviewer**: Not even once?

**Interviewee**: He never cooked on it even once, because it was not fully rolled out. They were told to wait for a pumping machine, so that it could produce strong fire for cooking. And, they told us that once the pumping machine comes, then we would be able to get manure from it… As far as cooking, the fire I saw wasn’t sufficient to cook on. It was only enough to light a butt of cigarette… I was there throughout the whole time as I was called to witness everything as a chief for this community. The fire I saw wasn’t strong enough to cook anything on. But, the bag was full at that time, though it didn’t produce gas.

**Interviewer**: How did you meet your energy needs that time?

**Interviewee**: We get firewood from the trees around, and I make charcoal from mango trees myself because I have many mango trees around. As you can see there, I did cut that branch because I wanted to make charcoal. But, people don’t usually use charcoal. I use charcoal because I have many trees. The trees you are seeing around are mine. In regards to firewood, I have three energy efficient wood stoves.

**Interviewer**: Where did you get them?

**Interviewee**: A certain non-government organization brought it here, so that we could save trees. [Come let me show you the stoves]

**Interviewer**: Okay, thanks. How and why do you have many trees?

**Interviewee**: I see that the environment is degrading, so I want to take it back. And, it’s good for me in the short term because I use it for cooking, and it also shields my house from strong winds.

**Interviewer**: When they brought the digester, I believe you had cows.

**Interviewee**: Yes, that time we had cattle, but right now, we don’t have.

**Interviewer**: How many cows did you have, and what happened?

**Interviewee**: We had more than 20 cows, and people stole all of them in a single day.

**Interviewer**: Oh, really?

**Interviewee**: Yeah, it happened.

**Interviewer**: Oh, that’s too much, what did you do?

**Interviewee**: We didn’t even bother to go to tradition doctor. We just left it in God’s hands.

**Interviewer**: Okay, how did you manage the feedstock before the intervention?

**Interviewee**: We had nothing to do with it.

**Interviewer**: So with all that manure you weren't using it as fertilizer?

**Interviewee**: Yeah, it does not help. I have it tried you manure as fertilizer before and it does not work.

**Interviewer**: How does maize react to manure?

**Interviewee**: If you don’t use inorganic fertilizer, you should expect nothing but hunger. I have even tried chicken manure, and it doesn’t work too.

**Interviewer**: Don’t agriculture officers come here to teach you how to make animal manure as fertilizer?

**Interviewee**: Nowadays they are always in their offices and not in the fields. I don't see agriculture extension workers here anymore (laughs)

**Interviewer**: (laughs) they are always in their offices….

**Interviewee**: (laughs) they are always at Nsanama Office. I don’t see them here to advise people on agriculture things. In the past, and when I say in the past I mean in the 90s or 80s, agriculture extension worker as used to come here to tell us that we should apply fertilizer 10 days after sowing, and then apply UREA fertilizer 61 days after sowing – but these days you can’t see them. So, we only do things the old way here, and it doesn’t work as things have changed.

**Interviewer**: Okay, how much feedstock did you start it with?

**Interviewee**: We used 10 bags of cow and goat manure of which five bags were from our animal house. The other we got from other people. Then, we were advised to grinding goat manure in a mortar, before pouring the feedstock in the digester bag.

**Interviewer**: How much water did you add?

**Interviewee**: We got it from the borehole.

**Interviewer**: It’s there!

**Interviewee**: 100 meters.

**Interviewer**: Even less; maybe 50 meters.

**Interviewee**: [no response]

**Interviewer**: How long did it take to start up?

**Interviewee**: I think it took about a month. During that time, I have to say the installers were coming time and again, and we had hope that things would work out. But, after installation and seeing that it wasn’t producing sufficient fire, they never came again. Before leaving, the installers just said they were going to bring a certain pumping equipment to boost the fire, and it’s been 4 years now without bringing the equipment.

**Interviewer**: How did it work after commissioning? Did you see fire?

**Interviewee**: Of course, we saw fire.

**Interviewer**: Did you try to cook?

**Interviewee**: No, we didn’t, and we didn’t even try because the fire was very, very little. And, that’s when they said they were not done, and would come back later with a pump…. Oh, the fire was very little, only sufficient enough to light a cigarette (laughs)

**Interviewer**: (laughs) that’s interesting!

**Interviewee**: (laughs) [Lights up a cigarette] Can you cook with this? (Laughs)

**Interviewer**: (Laughs) No way! How many people were expected to use the gas?

**Interviewee**: Three people.

**Interviewer**: What were the operation requirements?

**Interviewee**: Initially, they told us feed it with animal manure and water. Then, after it failed to produce gas, they said it needs a pumping device to help pump gas to the stove.

**Interviewer**: Where did they say they were going to get the pumping devices? And, when did they say they would bring them to you?

**Interviewee**: They didn’t tell about all that. They simply told us that they were going to bring a pumping machine to make the digester work.

**Interviewer**: Okay, did you feed it after commissioning?

**Interviewee**: Yeah, a couple of times. It would have lost all the gas**,** if we had stopped feeding it. And every time we fed the digester, the bag was inflating. And, when it was full, it produced the little fire after switching it.

**Interviewer**: Why would you still feed it when you knew it was not producing fire?

**Interviewee**: We continued feeding it because they told us that they were going to come back with a pumping device.

**Interviewer**: How often did you feed it?

**Interviewee**: Once in a week.

**Interviewer**: How much feedstock were you feeding it with?

**Interviewee**: We used to feed it with three bags (50 kgs) of manure.

**Interviewer**: How much water did you add?

**Interviewee**: I don’t really remember, but it was a lot because five women were coming to assist in collecting water for feeding it.

**Interviewer**: Who was responsible for feeding it?

**Interviewee**: It was the group - the 10 people group.

**Interviewer**: Was this digester given to a person or a group?

**Interviewee**: It was given to a person but some people were helping just to get manure at the end of it. Also, it was hard for one person to prepare manure, so that’s why some women were part of a group to help in grinding the manure. I don’t think one person could have done the work that was involved. I just don’t think so! So, they created like a club, and they had a specific day of feeding it. On that day, a person wouldn’t come near the site because the smell of manure was just too much. The people were committed because the price of fertilizer is just too much, so it was an alternative to them.

**Interviewer**: What were operation requirements?

**Interviewee**: They just left their numbers for us to call whenever there was a problem. But when we tried to call them, their numbers couldn’t be reached.

**Interviewer**: Do you remember how many times you feed it after it was commissioned?

**Interviewee**: It was countless times that you couldn’t keep it in the head.

**Interviewer**: Like 10 or 20 times?

**Interviewee**: More than that. I mean they fed it for 3 years. Imagine!

**Interviewer**: Oh?

**Interviewee**: The people working did put in a lot of effort. It’s just unfortunate that it didn’t work.

**Interviewer**: So during that time, where people able to collect digestate and use it in their farms?

**Interviewee**: It was producing something like liquid.

**Interviewer**: What were the people doing that?

**Interviewee**: They were doing nothing with it because they were not told how to handle it; nobody ever used it as fertilizer in his or her farm.

**Interviewer**: That’s also fertilizer

**Interviewee**: People didn't know about that. They were only expecting waiting for the installer to come with the pumping device. And, there was no harm in that because it’s what they were told. It’s as if someone asking you to bring a lighter to light a cigarette, under the person brings a cup of water, will smoke the cigarette? They never got fertilizer out of it because the instructor did not advise them on what to do. For example, you are telling me that the liquid that was coming out could have been used as fertilizer, but the people were never told that. The problem is that they never went for training and the digester needs training to work.

**Interviewer**: Did the people tried to call the installers….

**Interviewee**: Yeah, they tried to call the installers, but their phones couldn’t be reached.

**Interviewer**: So, in the end people never got what they wanted, for example, energy for cooking and fertilizer.

**Interviewee**: Mmh, they never cooked on it. Not even once. Maybe, they just used it as fire for igniting firewood like a matchstick.

**Interviewer**: How did the people react to seeing 10 people feeding it daily, but not getting something out?

**Interviewee**: I’m sure people were gossip about them, but I can’t say I heard anyone doing that. But I’m sure people were talking behind them back for what had happen.

**Interviewer**: What were the challenges?

**Interviewee**: The people were handling large volume of manure so it was cause cough and flu.

**Interviewer**: What else?

**Interviewee**: That’s all I can think of….Imagine, people would not pass close to them when they were making feedstock, so how bad was it for the person who was actually making the manure.

**Interviewer**: It must be very bad. How long did it take to stop making gas? Or, how long did the people take to give up?

**Interviewee**: Like I said 3 years.

**Interviewer**: Let me get you clean on this one. When it was commissioned, you have said it didn’t produce gas and it was not used for cooking not even once. So, the people were waiting for the installers to come with a pump so that they could use it for cooking as well as for fertilizer. Do you mean people would still feed it for a year, let alone for 3 years when it’s not producing anything?

**Interviewee**: Yes. The people here wanted it to work, and you cannot compare the effort that the people here put to the effort that the people of [location redacted] put. The people here were committed!

**Interviewer**: Oh, you mean people fed it for more than 2 years whilst it wasn’t producing anything?

**Interviewee**: Yeah, after 3 years that’s when the people say it was enough. You cannot wait for four years to get something in this life. It’s just too much. Life these days is short. Two weeks ago, I was in Msasa village talking to a certain person there. In the evening, I received news that the person had passed on. Life is too short now; you can’t wait for more than 3 years.

**Interviewer**: You said when you called them their number couldn’t be reached? Did you copy the numbers wrongly? What happened?

**Interviewee**: It was fraud. The installers only came here to cheat people. The same reason why they were not bringing the pump is the same reason why they were not responding to the calls… They only came here to cheat people and it was easy for them to do that because the people here are illiterate, and that`s why we just accept and applaud everything!

**Interviewer**: (laughs) Oh

**Interviewee**: The fact that we had no lawyers, and that we didn’t have the money to hire lawyers is why we did not go to sue for what they did. You know, you can’t get a lawyer with K2000.

**Interviewer**: If you had money and resources, would you have gone to court?

**Interviewee**: With 100% certainty! It's just awful! You can’t make people work with manure for years like that for nothing. That’s inhumane! There is no morality in that.

**Interviewer**: You are a senior chief and you even get your monthly dues from the government. Why didn’t you go there? Why didn’t you involve the government?

**Interviewee**: You can’t go to any public office in Malawi without money and expect to be successful. I remember me nephew was involved in an accident, so I called the ombudsman’s office and even Counsel [name redacted] to help me. But, they were only lying to me. That’s when I lost faith in the system.

**Interviewer**: Oh, you talked with [name redacted], the former attorney general?

**Interviewee**: Yeah, I even have the papers in my house I can show you. I got in debt because I borrowed money to follow the case. I remember this other time I exhausted all the money while I was in Blantyre, and he even gave me transport to come here. We went to court in Blantyre, but nothing happened. The person who hit my nephew corrupted the system. So, if an open and shut case like that failed to materialize what more this one – it’s just a waste of time for a poor to go to courts in Malawi. They just send you back and forth when you don’t have money until you give up!

**Interviewer**: (laughs) Yeah, I see!

**Interviewee**: [no response]

**Interviewer**: Have you seen this kind of information before?

**Interviewee**: No, they didn’t give them that.

**Interviewer**: As you can see, it has information regarding issues that are common on digesters, their causes and solutions. What do you think about this kind of information, and do you think it would have helped?

**Interviewee**: Yeah, by just looking at the effort and commitment that the people were putting in, one would be inclined to think that it could have helped. And, it`s unfortunate that they didn't give us any solid information about their whereabouts, so people couldn’t have gone “Agora or ADMARC” and ask for them. People would have thought that the people were crazy.

**Interviewer**: (laughs) If installers can call you today and ask you to discuss the current state of your digester, what would you say?

**Interviewee**: We can tell them the truth that we left the digester in a secluded place after moving from one house to another, so some people stole the bag. And, it’s not our thought that we left it there because waited for 4 years and they didn’t show up. They moved from that house because the house had serious cracks, so it was safe. And, they couldn’t have taken it out because they were not told how to take it out safely by removing the manure.

**Interviewer**: So you think the people would not have a stolen it, if there were follow-ups?

**Interviewee**: If the installers were organized and following up the digester, the thieves wouldn’t have find a chance to steal it.

**Interviewer**: Is that not a talk of a leader defending his subjects, even thieves? (Laughs)

**Interviewee**: (laughs) No, if the installers were serious about the digester, it would not have been stolen. I mean, we waited for 4 years, not 4 months, and that’s enough time for a baby to be born, and start life.

**Interviewer**: We are going towards the end. How much did the cost?

**Interviewee**: They didn’t tell us that.

**Interviewer**: Did you contribute anything in kind?

**Interviewee**: No, we contributed nothing!

**Interviewer**: What about buckets and all that?

**Interviewee**: They contributed a flour mortar and pestle, a sieve for preparing feedstock.

**Interviewer**: (Laughs) oh

**Interviewee**: That’s why I say the people were committed, and were taken advantage of - that’s what I mean. If they had money, they could have sued the installers for damages. Imagine, women were grinding and sieving goat manure to have smooth slurry, but all for nothing.

**Interviewer**: (laughs) What kind of special items have to be important from another country?

**Interviewee**: Mmh, they didn’t tell us.

**Interviewer**: But, when you look at it do you think it’s from Malawi?

**Interviewee**: We can’t know. We just saw it coming it here.

**Interviewer**: What is your opinion of biogas?

**Interviewee**: Maybe, if you could tell us what you think of it, we can learn from you. But for us, eeish, we don’t want that “trouble”

**Interviewer**: (Laughs) oh!

**Interviewee**: Maybe others could accept it after being successful installed, because people don’t normally shy away from projects here. But, with this one and with what people saw, I don’t know! I don’t think they can accept it. Generally, people embrace projects of any kind here!

**Interviewer**: Why do people embrace projects here?

**Interviewee**: It’s because it's part of national development. And, every project has benefits; the people when they got the digester thought they would get fertilizer as well as use it for cooking.

**Interviewer**: Last one. If you could have designed your own waste or energy intervention, what could you have chosen instead?

**Interviewee**: We could have gone for a solar system.

**Interviewer**: Why a solar system?

**Interviewee**: It brings development in a community. It also brings change to a community. Also, solar system can also be used for lighting, which is a big plus. Here when we want to make our beds at night we light grass. That`s not on… So, I can choose a solar system.

**Interviewer**: Why don’t you use candles?

**Interviewee**: What can we buy candle with? We don’t have money, and with the food shortage, which is here, that’s not a good idea. People are failing to buy food, so they can’t buy candles. In the past week, I have only been eating pigeon peas day and night. It’s tough! And, I have a plea to make to non-governmental organizations; please don’t do development along the tarmac roads. People in remote are suffering. Please include us in your plans. NGOs don’t come here! For example, we made bricks and asked the Arabs to build as a mosque here, but they didn’t come. If you go to Nsanama, you will find mosques everywhere. So, I feel we are sidelined from development projects. We are only important around election period. After that, we are nothing.

**Interviewer**: You are saying you are always sidelined in projects, then how come an NGO brought you a digester?

**Interviewee**: They brought nothing but diseases [cough and flu]

**Interviewer**: (laughs) oh

**Interviewee**: What we are telling you is that, if you could come with a project, don’t do what the biogas project installers did.

**Interviewer**: Thanks, and that was my last question. Do you have any last words?

**Interviewee**: Thanks for coming, and please know that you are welcome to come here anytime.

**Interviewer**: Thanks for the reception!