**BIOGAS ASSESSMENT PROJECT**

**Site ID: 60**

**Date: December 12, 2022**

**Interviewer**: Where did the digester originate from?

**Interviewee**: It has been a long time, so it is hard for me to remember. But, the people who brought it here are the ones who built it also – I think the people brought the digesters to try them here.

**Interviewer**: Oh, they brought the digester to try it out?

**Interviewee**: Yeah, it was try out.

**Interviewer**: Who was trying out the digesters? Was it the government or a non-governmental organization?

**Interviewee**: It was a non-governmentalorganization.

**Interviewer**: Was it UNDP?

**Interviewee**: It could be – I am not sure.

**Interviewer**: Who built it?

**Interviewee**: I think the non-governmental organization hired some contractors to build it here.

**Interviewer**: Do you know the name of the contractor?

**Interviewee**: No, I do not know.

**Interviewer**: How many people from the installation company were involved in the installation?

**Interviewee**: They were two, and they were coming with the clerk of Tradition Authority Nsanama.

**Interviewer**: How many people from your side were involved in the construction process?

**Interviewee**: My son and I were responsible for dig the holes.

**Interviewer**: How long did it take you to dig the holes?

**Interviewee**: It took us 3 days to dig the hole. It was a big hole and the ground was hard too that is why it took us some time.

**Interviewer**: What was your other role?

**Interviewee**: We were also responsible for sourcing and preparing feedstock.

**Interviewer**: How many were involved?

**Interviewee**: We were seven; my wife and four daughters were the ones who were busy collecting water and manure, while my son and I were responsible for mixing the feedstock.

**Interviewer**: Where did you source manure?

**Interviewee**: We got fresh cow manure from our cow house. Some of it I got it from some one else.

**Interviewer**: Did you buy?

**Interviewee**: No, he just gave me for free.

**Interviewer**: How much cow manure did you get from there? And, how far is it from here?

**Interviewer**: It is not far from here.

**Interviewee**: Like how far?

**Interviewer**: It can take 30 minutes to go back and forth.

**Interviewee**: Okay, how much cow dung did you get from there?

**Interviewee**: I got one bag. I used a 90 kg sack bag.

**Interviewer**: How much feedstock did you feed it to start it up?

**Interviewee**: They advised us to feed it with three bags (90 kgs). So, I used three bags of 90kgs of fresh cow manure and plenty of water too. I do not recall the exact amount of water, but we used a lot of water. After we fed the bag, it got full which meant that it had gas, but it did not produce fire.

**Interviewer**: Oh, okay, so you got two other bags from you cow house?

**Interviewee**: Yeah!

**Interviewer**: How many cows did you have?

**Interviewee**: I had seven cows.

**Interviewer**: Where did you get the water?

**Interviewee**: We have a borehole somewhere there.

**Interviewer**: That is less those 250 meters away. Okay, how were you selected as a beneficiary?

**Interviewee**: That I can remember. People were chosen because they had cows or goats. You know a digester cannot work without animal manure, so that is why goat and cow owners were chosen. So everyone who was given a digester had cows or goats, or had access to animal manure. But, most people who were chosen had goats or cows.

**Interviewer**: Was there anyone who had no cows or goats who was chosen over anyone who had cows or goats?

**Interviewee**: I think all the people who were chosen had cows.

**Interviewer**: So, what was the selection process like? Were people handpicked or the chiefs choose them?

**Interviewee**: When the project implementers came, they had a meeting with the Area Development committee and outlined the requirements for the beneficiaries. Some of the requirements I have already mentioned, for example, a beneficiary was supposed to have cows or goats, or had access to animal manure. So, when they came the ADC chair who is the Traditional Authority (T/A) clerk directed here and to the people who had cows or goats, and the installers asserted if the person was eligible or not. So, as cow owner I was chosen.

**Interviewer**: Okay, what were your expectations?

**Interviewee**: My expectation was that I would use the digester, and then benefit from it. Sadly, the digester did not work, and I did not see any person who used it.

**Interviewer**: What went wrong?

**Interviewee**: I do not know what went wrong. But, I believe the digesters had technical issues.

**Interviewer**: Why do you say that?

**Interviewee**: It is not only here that the digester did not work. If it did not work here, I would have conceded that I was at fault. So, if I am not the reason for its failure, it leaves the digester and the installers. Then, the installer told us that they would bring solar panels to boost the digester. So, the digester had technical issues.

**Interviewer**: How did you expect the digester to help you as a beneficiary?

**Interviewee**: The installers mentioned that as a beneficiary I would be able to use for cooking. Secondly, they mentioned that the digester would produce digestate that works as fertilizer.

**Interviewer**: Did they tell you that you could use it for lighting as well?

**Interviewee**: Yeah, I forgot that. The installers talked about using it for lighting as well. But, they said that they were here that time for using it for cooking only.

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

**Interviewee**: We did not receive any training. And, I also talked with the ADC chair and he did not think that the other beneficiaries had trainings. He said he would have known if the other beneficiaries had trainings, because they are usually notified of such things in most cases.

**Interviewer**: You are saying that your digester did not work. Tell me about it?

**Interviewee**: After we fed it we waited for some weeks, I think 3 or 4 weeks. The bag got full but when they switched on the stove, it did not work.

**Interviewer**: Did you see any flame?

**Interviewee**: No. I did not see any flame.

**Interviewer**: Okay, when the installers installed the digesters and saw that it was not working, what did they say?

**Interviewee**: They just said that we should not tamper with the digesters because they would come again to boost the digesters. Since then they have never came back.

**Interviewer**: Like how?

**Interviewee**: They said they would bring solar panels to boost the efficiency of the digester.

**Interviewer**: Okay, what were the operation requirements?

**Interviewee**: They said that it requirement is to feed it with cow manure, and without cow manure, it does not work.

**Interviewer**: How did you prepare the feedstock? I mean you can`t just have cow manure for it to function.

**Interviewee**: We only fed it during the time we tried to it start up period. So, at that time we placed cow manure in a bucket, add water, and then stir the feedstock thoroughly. Then after that, we poured the feedstock in the digester bag.

**Interviewee**: How were you supposed to feed it after commissioning?

**Interviewee**: They did not tell us. Maybe, they could have told us, if it had worked. We were communicated many things because the digester did not work at all.

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

**Interviewee**: They just told us that if we saw the bag shrinking, then we should feed it. That was the only thing they mentioned about maintenance.

**Interviewer**: Who was responsible for its maintenance?

**Interviewee**: We did not discuss that. I think, if it had worked, we would have gone for a training to learn about it. After that, we would have been able to maintain it ourselves.

**Interviewer**: Why do you think you would have gone for training?

**Interviewee**: They cannot give you a new technology like that without training. It cannot work. So, they would have given training, if it had worked. Imagine, people bring boreholes in the communities all the time, but every time they train the people. So, if they train a community with boreholes and with a number of people trained in borehole management, what more a new thing like thing; what about something that the whole community has never seen?

**Interviewer**: What were the challenges?

**Interviewee**: The challenge is that the digesters did not work, and we did not know what to do afterwards. So, we did not see any benefit of biogas as the installers promised. For example, they promised us that we would be using it for cooking, and that they would bring solar panels to boost up the system, none of which happened – Nothing they said ever happened.

**Interviewer**: Why all these broken promises?

**Interviewee**: They did not know how to fix it, and I believe they only talked about solar to ease our hearts. They knew that they would not come with the solar system. If they were bringing solar panels, they would have brought it in the first place.

**Interviewer**: Did you try to call them to follow up?

**Interviewee**: Yes, I did call them. And they were just saying that they would come, but they never did. Since, it has been a long time back we have lost all their contacts. I also talked with the T/A clerk; he was told that they would come as well.

**Interviewer**: How would you describe the current state of digester?

**Interviewee**: It is currently not working just like they left it. It never worked even for a single bit.

**Interviewer**: What about the equipment, where is it?

**Interviewee**: The digester bag is on the rooftop, and the other things were just dispersed on the ground. So after some time they were damaged and lost.

**Interviewer**: How did it reach the stage? And, in your opinion, what caused it to fail?

**Interviewee**: I think the problem was the installers. They failed to make the digester work as we expected and as they explained to us.

**Interviewer**: Why do you think the installers failed?

**Interviewee**: I only think that they did not know they were doing. So, I just think they did something wrong or they did not assembly the parts as they were supposed to be.

**Interviewer**: In your opinion, why do you think the installers never returned?

**Interviewee**: (Laughs) the installers knew there was nothing they could do fix it. So, there was no point incoming here again.

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

**Interviewee**: They did not us about its cost.

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

**Interviewee**: The only thing I contributed was cow manure and water.

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

**Interviewee**: If you look at the objective of the whole project, it was premised on people of this community to use the digesters for lighting and firewood. As a result, the people would stop cutting down trees for cooking thereby saving the environment. So, I think if it was possible they could have just brought solar panels with good batteries, because solar panels do not require a lot work, they just need the sun. I believe, we can solar panels for cooking as well as lighting. I do not think biogas is good alternative because it needs cow manure, which is not easy to source and handle.

**Interviewer**: We are about to finish the interview. I have two questions remaining. What is the future of biogas in my Malawi?

**Interviewee**: As far as I am concerned, I do not see any future with biogas. I am saying this because out of all the cow or goat owners who were given the digesters no one ever used it. So, I cannot see any future of it.

**Interviewer**: Okay, I think you have answered my question partly or fully. My next question was, if you would have designed your own waste or energy intervention, what could you have chosen instead?

**Interviewee**: The only solution is solar panels. I think that solar panels are reliable and can work to the point were they could benefit communities. So, government or non-governmental organizations should consider solar panels because they could fit in our communities and benefit the people accordingly.

**Interviewee**: Why would the fit here?

**Interviewee**: Nsanama is close to the lake, so it is hot.

**Interviewer**: Thanks for the interview, do you have any final words.

**Interviewee**: I just want to thank you for coming.

**Interviewer**: Thanks for letting us come here too.