**BIOGAS ASSESSMENT PROJECT:**

**Site ID: 44**

**Date: September 29, 2022**

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

**Interviewee:** I don’t know where it came from; I have forgotten.

**Interviewer**: Did they tell you or did you ask?

**Interviewee**: I asked but because I do not know how to writing, I lost it.

**Interviewer**: Who funded it?

**Interviewee**: I think it was a non-governmental organization and it collaborated with the government.

**Interviewer**: Okay, do you know the name of this organization?

**Interviewee**: No.

**Interviewer**: When was it built?

**Interviewee**: I do not really remember the specific date, but I think 4 or 5 years have passed.

**Interviewer**: How many people from the installation company came to install this?

**Interviewee**: They came two times. The first time two people came and the last time four people came.

**Interviewer**: What was your first encounter with them?

**Interviewee**: First, the chiefs called us for a community meeting to brief us about the project. So, they basically told us that biogas system uses animal manure to produce energy for cooking. I believe in each village one person was chosen. In my village, when I saw that people were unwilling to accept it, I volunteered to get it, and then people encouraged to get it. I basically accepted the digester because I anticipated that in the future, it was going to help, and then once people saw its benefits they would adopt it themselves.

**Interviewer**: How did you expect it to help you?

**Interviewee**: There were certain things that were explained, and I found compelling. Nowadays, firewood is scarce, so I thought that it was going to help me in this regard. Also, I thought the digester was going to help me protect and restore trees. The main aim of the coming of the digesters here was for us to find an alternative for cooking, and then protect the environment.

**Interviewer**: Okay, why were people unwilling to accept it?

**Interviewee**: I think many people thought they would not manage to source manure. Or, maybe some people just refused it out of fear, as a result of poor thinking.

**Interviewer**: What did they fear?

**Interviewee**: Maybe they just thought they would not manage it - Just fear of failure.

**Interviewer**: So did you accept it for the sake of being a chief, like you did not want it to pass your village since all your subjects declined it, or did you accept it because you had the necessary requirements and liked it?

**Interviewer**: I accepted it because I had goats, so I knew I could manage. And, when the installers came, they made us gather manure, and then advised us to prepare feedstock. So from that point onwards, I had no fear and I knew that I would manage to run the digester.

Interviewer: How many goats did you have that time?

**Interviewee**: I had eight goats.

**Interviewer**: so, some people did not accept it….

**Interviewee**: Yeah! When the senior chief asked people to volunteer to get the digester everyone was just quiet.

**Interviewer**: What was your role?

**Interviewee**: My first role was to accept it with a joy because I knew that whoever was giving us the digester had a purpose here in Malawi. Secondly, I thought that the donors were generously to village people like us who are shortsighted in our thinking. So, I accepted it to make it appealing to the people who denied it in the first place, so that they could adopt it later too.

**Interviewer**: Did you dig a hole when it came?

**Interviewee**: Yeah, I dug a hole with my children.

**Interviewer**: How many children?

**Interviewee**: Two children.

**Interviewer**: Did the installers take part in the digging?

**Interviewee**: No, they just advised us to dig it.

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

**Interviewee**: It took us two day, as you know the bag was huge. So, to make it fit hole, the hole had to be big and wide too.

**Interviewer**: What advice did they give you?

**Interviewee**: The advice was just on how deep and wide the hole was supposed to be. I have forgotten the dimensions though. But, it was a big hole.

**Interviewer**: In this village, we have so many people and so many households; I want to get a full picture of how you were selected on that particular day.

**Interviewee**: Okay good, you are going to get me clear on this one. What happened was that, our Late Senior Chief offered the digester to the people, but no one accepted. After a very long time, more than you have stayed here (15 – 20 minutes), the Senior Chief stood up and asked the people what was the way forward. Then, some loud person from the group just shouted that it should be given to the chief, like it should be given to me. And, everybody was like let us just give it to the chief, and that is how I got it. And, I could not have said no because everyone wanted me to have it, and I thought that I could manage it. After that, I committed myself to manage it.

**Interviewer**: So, I shouldn’t think that it was just thrown to you by the people?

**Interviewee**: No, and I was happy to have it because it is a special thing here in my Malawi and I’ve never seen it anywhere else in Malawi.

**Interviewer**: Where was this selection process made? Was it at the TAs meeting place or at Senior Chief’s meeting place?

**Interviewee**: I believe we first met at the Senior Chief`s meeting place, and then we went to the TA’s meeting place.

**Interviewer**: So it’s like the T/A asked the Senior Chief to hold the meeting….

**Interviewee**: Yeah, and whoever was chosen was supposed to go to the T/As meeting place, and went there.

**Interviewer**: What was it like at the T/As meeting place?

**Interviewee**: They communicated to us that we were lucky to be chosen as beneficiaries from different villages, and they hoped that many people would get the digesters if they worked.

**Interviewer**: Did you know about biogas before? If I have heard you correctly, you didn’t know about it, right?

**Interviewee**: I knew it when I was called to the Senior Chiefs meeting place. And, it was where they communicated that the digesters would help us in cooking as well as in saving the environment.

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

**Interviewee**: I expected that after installation and upon completing everything, I would be able to use it for cooking.

**Interviewer**: What were you told me to expect from the digester by the installers?

**Interviewee**: The installers told us that the digesters were forcooking.

**Interviewer**: Apart from this, what else were you told to expect?

**Interviewee**: Apart from cooking, if I’m not mistaken, they told us that it could be used for lighting, and as a source of fertilizer.

**Interviewer**: Where did they say the manure was going to come from?

**Interviewee**: They said that digesters produces digestate, and we only needed to collect and use it as fertilizer.

**Interviewer**: Did you ever use the digestate, or for lighting?

**Interviewee**: No, it never occurred.

**Interviewer**: I’ve seen that one woman accepted it, and it’s not too far from this here…

**Interviewee**: Oh yeah. That’s Nyama Village. So, when the people of Nyama Village sat down to choose a beneficiary, she was chosen. As for Mkasaulo Village, nobody accepted it and that’s why Group Village Headman (GVH) [name redacted] took it. And the question you are trying to put out, we got asked at the T/A`s meeting place. They asked us why we chiefs got the digesters. Didn’t we have people who could have got the digesters? So, we told them everything that had happened, and that people refused to accept the digester. So, we got asked the same question (laughs)

**Interviewer**: Yeah, honestly it doesn’t look good because it may seem as you used your powers or your position to get the digesters.

**Interviewee**: (Laughs) Yeah, but we told them that people had denied it, and we couldn't have afforded to let it go to another area.

**Interviewer**: When I look at the three of you; Chief [name redacted], you and the woman, I can’t say you used it; it all ended in total failure. But, the woman at least did better than you. Why did the chiefs fail miserable, when you were supposed to be exemplary as leaders?

**Interviewee**: Interesting… mm-mmh… In a community setting like this, we do have people who are smarter than chiefs. Some people do things better than the Chiefs, and are even more successful in wealth. It happens, that’s life. But in this instance, we felt because they didn’t give us a full set of the equipment - they only came once. As for that woman, she was given everything.

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

**Interviewee**: If I ever learned about biogas, it was at the community meeting at the TAs meeting place. But, there was no special training for the beneficiaries.

**Interviewer**: What did you learn at the TA's meeting place?

**Interviewee**: They only ask us to take good care of the digesters and that it’s helpful. So, they told us how useful it is, and that it needs manure to work, and also that the installers would teach us more about the digesters.

**Interviewer**: What were you told in regards to taking care of it?

**Interviewee**: They told us that when the installers come and finish everything they would tell us how to manage it in order to keep it safe and long. But, they didn’t tell us how we were supposed to take care of it.

**Interviewer**: Why do you think of the installers never came back?

**Interviewee**: mm-mmh, I don’t know. I heard at GVH [name redacted] place they didn’t finish everything too.

**Interviewer**: Yeah, they only brought a digester and a pipe. But, after sometime, some people came to follow up on the digester. Did they come here?

**Interviewee**: No, they didn’t.

**Interviewer**: Maybe they thought it wasn’t necessary to come here after what happened at Mpita’s place.

**Interviewer**: Yeah, you mentioned that you accepted this because you wanted to use it for cooking. Secondly, you wanted other people to learn it, so that they could appreciate and adopt it later. Apart from these, is there any other reason why you accepted it?

**Interviewee**: Also, when I looked at the environment, it’s trees which makes the environment flourish, so I wanted to reduced the cutting down of trees and make the world a better place. Also, I feel like if we are going to continue cutting trees as we are, we are not going to find firewood for cooking in the near future. So to avoid that, I decided to accept the digester.

**Interviewer**: The environment is flouring because of tree, could you please elaborate on that.

**Interviewee**: I’m saying the environment flourishes with trees because we get rains because of trees. Of course, it’s God who provides rain, but for that to happen you need trees to facilitate the process. Thus, if we cut trees and use it for silly thing, the amount of rain decreases as well.

**Interviewer**: Okay, how did you make your energy needs before the intervention?

**Interviewee**: That time I was cooking with firewood, but it was a struggle as firewood is not easy to find. Sometimes, my wife was using dry pigeon plants as firewood. But, we were luck that time because a certain NGO came and encouraged us to plant private trees. So, we get firewood from the private trees.

**Interviewer**: What is the name of this organization, and what was their project like?

**Interviewee**: Every year we do have a tree-planting program, which is spearheaded by government forest officials with funding from a certain NGO. At this tree planting session, we plant trees at our community forest and also people are given free seedlings of tree to plant for personal use. So, some people have personal woodlot, which they get firewood from.

**Interviewer**: Okay nice. How do people benefit from the community forest?

**Interviewee**: Sometimes the whole community is asked to go to the forest take care of it, and then people get dry fallen wood, which they use as firewood in their homes.

**Interviewer**: Nice. How did you manage your feedstock before the intervention?

**Interviewer**: Now that I don’t have goats, I’m struggling because I only rely on inorganic fertilizer. When I had goats, I was only buying one bag of inorganic fertilizer then I was mixing it with goat manure to make two bags of fertilizer. To make this, you only need to mix one bag of inorganic with goat manure and add yeast, or baking soda or ash, then put it in a plastic bag for a week. After a week, you find the goat manure completely broken down and ready to be used as fertilizer. You only need to be careful when you are opening the plastic bag because the heat that comes out of it is intense, it can even affect your eyes if you are not careful (laughs). This type of fertilizer is effective and once you have it, you can’t bother to buy fertilizer from the shops.

**Interviewer**: Okay, where did you learn this?

**Interviewee**: We learnt this from a certain NGO.

**Interviewer**: What’s the name of this NGO?

**Interviewee**: Mm-hmm, I have forgotten its name.

**Interviewer**: What about agriculture extension workers?

**Interviewee**: Oh yeah, they also teach us this.

**Interviewer**: Let’s try to see what transpired from this digester though it never worked. First, which materials were you given?

**Interviewee**: I was given a digester bag and two white pipes as an outlet and inlet.

**Interviewer**: Did you get the material yourself? Or, they brought it here?

**Interviewee**: I went myself to collect the equipment on a bicycle.

**Interviewer**: They didn’t bring the equipment?

**Interviewee**: No, they didn’t. I got it myself from the agriculture office at Nsanama.

**Interviewer**: Did all the beneficiary got the equipment by themselves?

**Interviewee**: I remember we got it ourselves – I haven’t forgotten. I took it myself.

**Interviewer**: Why didn’t you get all the equipment, for example, the stove and other pipes?

**Interviewee**: They didn’t give us those. They said they would bring the equipment themselves. No beneficiary got all those things that day.

**Interviewer**: Did you take the equipment first? Or, the installers came first?

**Interviewee**: We took the materials first, and then they came here to advise us on how to dig the hole.

**Interviewer**: How long did it take?

**Interviewee**: They came before 2 weeks, I think

**Interviewer**: So on the day the installers came, what did you do?

**Interviewee**: We started digging the hole, and it took us 2 days.

**Interviewer**: Did you place the bag on your own?

**Interviewee**: No, the installers came.

**Interviewer**: I hope you also fed it that day.

**Interviewee**: Yeah, they guided us how to make feedstock, and then they told us they would come back to assemble it and teach us how to operate it.

**Interviewer**: How much feedstock did you feed it with?

**Interviewee**: They advised us to feed it with 2bags (50kg) of manure, if not more.

**Interviewer**: And water too I guess.

**Interviewee**: Yeah

**Interviewer**: How much water did you add, and where did you get it from?

**Interviewer**: I got the manure from my animal house, and I got the water from the borehole.

**Interviewee**: Like how far from here?

**Interviewer**: Our community borehole is not far from our house. It’s about 400 meter.

**Interviewee**: So you fed the feedstock into the digester?

**Interviewer**: Yeah

**Interviewee**: How much water did you add to the feedstock?

**Interviewer**: We added 4 or 5 buckets (20 liter), and after a week, the bag got full.

**Interviewee**: After this what happened?

**Interviewer**: After we fed the bag, it started inflating. But, it was not completely assembly as other pipes were not there. Then, after we saw the installers were not coming, and that the feedstock was producing strong odor, we decided to remove the digester.

**Interviewee**: I thought when you fed it, the inlet and outlet pipes were covered, so how was it producing odor?

**Interviewee**: Yes, the pipes had covering. But, after some time, I decided to go and take out the coverings and that’s when I smelled the odor. And, that’s when I knew the inside was not good - rotten. After this, I wanted to call them, but I didn’t do so as I had no contacts of them.

**Interviewer**: When the installers were leaving, when did they tell you that they were going to come back?

**Interviewee**: They left on the 15th or so of month, and they told us that they would come at the end of the month to assemble the remaining equipment.

**Interviewer**: When did you open the covering, and why?

**Interviewee**: After I saw that two or three months had passed, I decided to check it out, because I was like they are not coming back.

**Interviewer**: After feeding it the first time, did you ever feed it again?

**Interviewer**: No, I knew that even I feed it nothing would happen because I knew that the installers were not coming again – so there was no need.

**Interviewee**: What were operation requirements?

**Interviewer**: They told us that it’s easier for people who have cows to run it, as manure is not a problem. But, for us since we had no cows, we would use goat manure to start it up, so it was going to take a lot of effort and time to gather. Then, there was no need to worry because we would be feeding it with small quantities of feedstock.

**Interviewer**: After starting it up, how much feedstock were you supposed to feed it up with and how often?

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

**Interviewer**: Did they tell you how to make feedstock?

**Interviewee**: No.

**Interviewer**: What were the maintenance requirements? Did they say anything about repairs?

**Interviewee**: They told us that after installation they would give us their contact to call them whenever there was a problem.

**Interviewer**: So they didn’t give you their numbers, but you expected to get their numbers after commissioning?

**Interviewee**: Yeah, but they didn’t come again to commission it (laughs)

**Interviewer**: Why do you think they never come back?

**Interviewee**: That I don’t know.

**Interviewer**: Or, do you think they didn’t come because they saw that you couldn’t manage it to the extent of thinking that returning to assemble it was simply a waste of time. What do you think?

**Interviewee**: No, goat manure is not a problem in this community. People can’t deny me goat manure. So, on my part, manure wasn’t a problem. Even when I don’t have enough inorganic fertilizer, I go around asking for goat manure and people give me without challenges.

**Interviewer**: My next question was to ask you if it met your needs, but to ask that question would be wrong. What are your cooking needs?

**Interviewee**: I just want to cook at least 3 times a day.

**Interviewer**: Many things happened with this digester, when you look back, what were the challenges?

**Interviewee**: The challenge with this digester is that it didn’t work, and I was very saddened by that.

**Interviewer**: Did you follow up? I mean, did you inform the TA or Senior Chief?

**Interviewee**: I informed the Senior Chief, but not the TA. I think, I was wrong on that. Maybe, he could have followed up the matter.

**Interviewer**: What did you tell the Senior Chief and what did he say?

**Interviewee**: I told him that the installers were not coming, and he just said it was hard to follow up since we had no contacts. So, we were lost and there was nothing we could have done.

**Interviewer**: You have admitted that you don’t know how to read and write. So, what I have here is information regarding problems associated with digesters, their causes and related solutions. What do you think of the information and do you think it would have helped in your case?

**Interviewee**: It would have helped.

**Interviewer**: How and why?

**Interviewee**: It would have helped us because it could have given us clues on what to do. But, the information should have been given to us after installation, and not before it was not fully installed because we could have done nothing with it. So, maybe they didn’t give us this information because they weren’t done with the installation.

**Interviewer**: What is the current state of your digester?

**Interviewee**: Honestly speaking, the digester bag is damaged. I should not lie to you because it won’t do us any good, it is broken.

**Interviewer**: Do you have the pipes?

**Interviewee**: Yeah, we still have the white pipes.

**Interviewer**: What about the bag?

**Interviewee**: It’s what I said it’s damaged.

**Interviewer**: I mean, how? Or, what is the extent of the damage?

**Interviewee**: It was eaten by termites, and it was damaged in the house by rats too.

**Interviewer**: Oh, you mean termites can eat that hard thing?

**Interviewee**: Yeaaah, termites were eating it up! And, even if you can see the bag you can know that termites were eating it up.

**Interviewer**: How did you remove ii?

**Interviewee**: After a year when we saw the installers were not coming, we removed it, and that’s when we noted that it was being eaten by termites. Then, we got it to the storeroom and there too rats were eating it up.

**Interviewer**: What happened to the manure that was inside?

**Interviewee**: After we removed it we just disposed it anyhow because didn’t know it’s use.

**Interviewer**: so, you didn’t use it as fertilizer?

**Interviewee**: No, we didn’t.

**Interviewer**: I can see you are using the digester bag as a roofing sheet.

**Interviewee**: Yeah, I just decided to use it that way after finding no real use for it.

**Interviewer**: I have also seen you are using it as a makeshift door for your pit latrine.

**Interviewee**: That’s true… it’s not like after I got it out I sold it, no! I didn’t thought about selling it (laughs)

**Interviewer**: (laughs) Can a person buy that, for what?

**Interviewee**: (laughs) Aah, it’s useless

**Interviewer**: Why didn’t you sell it?

**Interviewee**: It’s not good for a chief to sell government property. I mean, what if other people see you, then how would you discipline them (Laughs). So, we should be the first ones to show respect to other people’s property, so that others can learn from us too.

**Interviewer**: What happened to your digesters is a pity, that shouldn’t have happened. It’s making laugh at times because what happened was bizarre. In your opinion, why would an organization send people to do a job and then stop in the process?

**Interviewee**: I don’t know. But, in my head sometimes, I’m not judging anyone though, I think the installers decided to sell the equipment somewhere else. I do think so. I mean, the way we talked the time they came, I didn’t think more than 4 years would pass without returning. God forbid, I think that the boys who came to install the digesters sold some of the equipment. Honestly, I did think the boys did sell the equipment somewhere, and I was saddened by it.

**Interviewer**: Yeah, it could be possible. I mean, where is the equipment? Now how do you meet your energy needs? Do you still use the firewood and dry pigeon peas plants?

**Interviewee**: Yeah, it’s still the same.

**Interviewer**: Now you don’t have goats or any livestock, right?

**Interviewee**: I don’t keep any livestock now.

**Interviewer**: How much did the reactor cost?

**Interviewee**: They didn’t tell us. Maybe if they had come to commission it, they would have told us.

**Interviewer**: And they didn’t tell you who provided the funds, right? And, it’s not the government, right?

**Interviewee**: Yeah

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

**Interviewee**: No, we contributed nothing... Frankly speaking, we didn’t contribute anything... Of course, it’s been a long time, but I can certainly say we didn’t contribute anything.

**Interviewer**: So if you ever spent anything on it, then it`s was just the energy

**Interviewee**: Right!

**Interviewer**: Is it two of you, who dug the hole?

**Interviewee**: It was me together with my two grandsons. So, it was three of us.

**Interviewer**: You said you did put the digester in the hole, was the hole lined?

**Interviewee**: No, they didn’t say anything about that.

**Interviewer**: I’ve heard some people were told to find sand, and bricks, and that the installers promised to provide cement, so that they could line the hole in which the digester was placed.

**Interviewee**: I have heard they did that to some people, and they never brought the cement. This clearly show that they stole cement – I feel bitter about those guys – and If you were them, I would have asked “ is this how you conduct yourself?” The government want the livelihood of people from rural communities to change and you are robbing us (laughs heavily).

**Interviewer**: (laughs) Oh, you were robbed?

**Interviewee**: (laughs) Obviously!

**Interviewer**: If you are certain that you were robbed, why didn’t you take the issue somewhere, for example, the police or any other relevant government authority?

**Interviewee**: It never crossed our mind. That’s why I always say education is good because it makes people became far-sighted. Of course, I’m a chief, but I’m not educated. I just use God’s given knowledge and wisdom. That’s why most things do not work for us. And, that’s why I encourage me children to go to school. I don’t want them to suffer like me, and that’s why I allow myself to do menial works to gain something, so that they should go to school…. I do feel pain for being uneducated!

**Interviewer**: I like the desire you have for children, do that, and never slow down; you will gain great rewards someday…. So, you think if you were educated, this wouldn’t have happened?

**Interviewee**: No, that wouldn’t have happened because I would have pressed them to finish this. The problem is that I only have natural intelligence. But, I feel lucky that I’m a chief and I’m able to connect with intellectuals.

**Interviewer**: (laughs) so you only have natural wisdom…

**Interviewee**: (laughs) that’s what I use – I use natural intelligence, and the knowledge that I gain from meetings, trainings and conferences to lead the people without troubles.

**Interviewer**: What special items had to be imported from another country?

**Interviewee**: When I saw it, I knew that it was from another country.

**Interviewer**: What did you see?

**Interviewee**: I mean, we were given the digesters to try them here, so I believe someone from outside the country wanted to try the digesters in Malawi – That’s what I thought!

**Interviewer**: What do you think who brought the digesters here in Malawi would say about what happened?

**Interviewee**: It could be that the project implementers gave them the report, and they want to verify the reports through you… so they have sent you to investigate the matter to see what really happened, so we can’t hide or hold any information from you, because if we do that it will not do anyone good (laughs).

**Interviewer**: That’s true. If it could have worked as they said do you think it could have saved you any money?

**Interviewee**: Yes

**Interviewer**: How?

**Interviewee**: It could have basically helped us in cooking and in saving trees as well, so these have serious economic implications.

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

**Interviewee**: I feel like I have unfinished business with the digester, though it may seem that I didn’t take good care of it by taking it out and use it for other purposes. I did that against my will and I was forced to do that because I was just seeing the bag doing nothing. I removed it because a lot of time had pass, so I thought they had abandoned it and it was useless. But, my position on biogas is that it is good especially when I consider how populated we have become, we really need an alternative to firewood because it’s no sustainable, and it’s not good for the environment too.

**Interviewer**: If you could have designed your own waste of energy intervention, what would you have chosen instead?

**Interviewee**: Instead of biogas, I would have chosen a good solar system to use it for cooking. I think solar system can help a lot. I can’t say electricity because it needs money. For example, in my area, we have electricity lines, but I’m not connected because it needs money.

**Interviewer**: Oh, you electricity in your area?

**Interviewee**: Yeah, we have it, but my house is not connected because I’m poor and can’t manage to pay connection fee.

**Interviewer**: Oh, I see. Last words, before we conclude the interview.

**Interviewee**: You should help us.

**Interviewer**: How? Should I find the person who didn’t bring the materials? (laughs)

**Interviewee**: (Laughs) help us get solar system or even another biogas.

**Interviewer**: I get you, thanks a lot chief.

**Interviewee**: (laughs) I thank you for coming too.

**Interviewer**: Welcome!