**BIOGAS ASSESSMENT PROJECT**

**Site ID: 28**

**Date: July 27, 2022**

**Interviewer:** First question, where did this digest originate from?

**Interviewee:** We do not specifically know where it came from. But, we know it came through the agriculture office. They asked people if they might be willing and able to manage it and we told them could manage it. So, they brought it here. But, we don’t know who really brought it here.

**Interviewer:** When you say manage it, what do you mean?

**Interviewee:** I mean, I was someone who had access to cow manure, so I knew it was possible for me to run it.

**Interviewer:** So, you had cow manure that time?

**Interviewee:** Yeah, we also had goats.

**Interviewer:** Oh, yeah I can see the goat house there.

**Interviewee**: [no response]

**Interviewer:** At that time, how many cows and goats did you have?

**Interviewee:** We had 20 goats and 5 cows.

**Interviewer:** Oh, that was a lot. How was the selection process like?

**Interviewee:** The project implementers liaised with the agriculture office to mobilize people who had access to cow manure. Since we had cows, they approached us, and we accepted it.

**Interviewer:** How meet the agriculture officer?

**Interviewee:** The agriculture people sought people who were active and interested in the project. For example, they engaged the people who were forthcoming, committed and good in terms of executing agriculture activities. So, we were chosen because they knew we were going to do a good job; the agriculture people know the community inside out so they know people who are reliable in the community.

**Interviewer:** Have you worked with the agriculture office before?

**Interviewee:** Yes, I remember one time I worked with them on a farming demonstration project. So, they saw how hardworking I was. Then, when they saw that the digester would need someone to feed it regularly, they thought of choosing someone who was hard working and had cows; and that is how they chose me.

**Interviewer:** Who funded it?

**Interviewee**: It was a non-governmental organization, which was working with the agriculture office. And, they told us how much money was involved, but I have just forgotten. Nevertheless, it was expensive.

**Interviewer**: Did it reach K500000 or a million?

**Interviewee**: I cannot remember. However, they told us the money and it was a lot.

**Interviewer**: Who built it? And, when was it built?

**Interviewee**: I do not recall when it was built… Maybe it was 2015 or 2016.

**Interviewer**: Okay, how many people from the installation company built it?

**Interviewee**: Different people were coming. I remember one time a white man and an albino person came… They came in three cars I think. The packed there and did there thing. They connected the pipes and all, then they started cooking. The other people from the community saw it working, so after they installed it they got into their cars and left.

**Interviewer**: What was your role?

**Interviewee**: I was responsible for digging the hole, and I removed the sand that was around the area. On the day of first day, two people came and told us how to prepare the feedstock. The second time they came is when they installed it. So, they came two times, and it was two different groups of people.

**Interviewer**: So you did the digging?

**Interviewee**: Definitely. I was just given a measuring stick for measurement purposes to use when digging the hole.

**Interviewer**: How long was the stick?

**Interviewee**: I do not remember its exact length. But, it was big as the digester bag itself because when I finished digging the hole, the digester bag fitted perfectly when it was full. The digester bag was protruding from the hole with half a meter or one meter when it was full… I must say that the digester bag is huge. A lot of manure went in it, and if we could get that out, we would fill this whole place manure… Sometimes, it was releasing slurry on its own especially when it was hot. They told us that we could use the digestate as fertilizer for our crops.

**Interviewer**: So, how was the outlet like?

**Interviewee**: We dug a hole at the outlet to collect the digestate. But, it could have been better if we had put a drum at the outlet to collect digestate and then take it to the farm. Unfortunately, we did not manage to do that. So, we simply made a drain for digestate to flow into… So, we used to feed the digester with cow menu and sometimes food leftovers. But, we were told not to feed it with soap.

**Interviewer**: Why didn’t you manage to put a drum at the outlet and use the digestate as fertilizer in your farm?

**Interviewee**: It is because at that time we didn’t have the resources to do that; that time we didn’t have enough buckets to the extent that we even struggled to store adequate water around the house. So, a bucket could have helped us a lot because it would have allowed us to collect digestate repeatedly to use at our garden. It must be said that the digester was producing a lot of digestate. And, every time it was about to release the digestate, we could tell by how full the bag was and by the sound it was producing after being tapped.

**Interviewer**: So, you never used the digestate as fertilizer despite being told that it’s fertilizer?

**Interviewee**: Yes, they told us that we could use the digestate as fertilizer but we never did.

**Interviewer**: Why specifically?

**Interviewee**: Because we failed to put a thing to collect the digestate as it was coming out of the outlet.

**Interviewer**: But, you dug a structure at the end?

**Interviewee**: It was simply a passage for the digestate to move in.

**Interviewer**: Does it make sense for a person who has cows and goats to fail to buy a bucket because of money?

**Interviewee**: The digester came to us unexpectedly; we did not prepare for it, and did not have time to make that arrangement. However, if it had continued or if it was now because of the price of high price of fertilizer, then we could have made such an arrangement. Then, people would have even considered smart people or even bosses. As we can see, the chance of people getting fertilizer this year is almost zero. So, it could have been seen as a special and extraordinary thing for someone to have a means of getting fertilizer.

**Interviewer**: What has happened to AIP (Agriculture Input Program) [Agriculture subsidy program]?

**Interviewee**: The government has reduced the number of beneficiaries. Secondly, beneficiaries will get less quantities of fertilizer this year - The future looks dark. The government has managed to get 70 metric tons thus far. They need 450,000 metric tons of fertilizer to meet the demand of beneficiaries. But, they will only manage to source 350,000 this year. So, this will negatively affect smallholder farmers who depend on the subsidy program.

**Interviewer**: You said you were chosen by the agriculture office because you had capacity as well as the desire to run it. This sounds like you had the right to say no if you so wished. Why did you accept it to be built here?

**Interviewee**: We saw this as an opportunity to stop the rampant cutting down of trees that is degrading the environment. So, this was a great innovation because we felt like it was going to prevent us from destroying the environment. On top of this, we accept it because it was going to help us with cooking.

**Interviewer**: Are you damaging the environment? If so, why is it necessary not to?

**Interviewee**: We saw that with the way people are cutting down trees, we are going to like run out of trees for cooking in the near future and life will be difficult. Yes, of course, it is involving to run it, but the main reason we accepted is that we wanted it to help us in cooking. Also, we considered the work that is involved in making feedstock and going to the forest to look for wood to have fire. Of course, both of these tasks are hard and involving, but you cannot compare them. It is easier to prepare feedstock within the house rather than going to the forest to look for firewood, you see that. On top of this, it was joy to have biogas because of the fire itself; the fire was not blackening the pots with soot; and the flames had no smoke. It was just blue like. You could not really see it during sunlight. At night, that is when the flames were visible. It only needed to be placed in a place where there was no wind. If you cooked on wind then it was taking a very long time. So, you needed to cover the sides to block the wind. Overall, it was a good thing. I feel like for a household to feel at peace, it needs a water tap and an electric stove or biogas.

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

**Interviewee**: No, we knew about biogas when they came and saw it working.

**Interviewer**: You mentioned that this was given to people who had the capacity to run it i.e. who had cattle. Do you know any people who had the potential to get it but did not get it? If so, why didn’t they get it?

**Interviewee**: It’s not that every person who had cow benefited from this, because the digesters were only a few. I think we had five digesters here.

**Interviewer**: How did you participate in the selection process?

**Interviewee**: We simply accepted that we could manage it. Then, we participated in the building process. We also supported the installers in making first feedstock by getting cow manure and water.

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

**Interviewee**: We got the water from the lake where we went together the last time you came.

**Interviewer**: Oh, yeah. I remember (laughs). [100 meters] We saw some boats and people drying fish. (Laughs) is it also where you get drinking water?

**Interviewee**: We get drinking water from the lake as well.

**Interviewer**: Oh, thanks. What were your expectations?

**Interviewee**: The first time they came, they told us that we would start cooking using biogas, so we were very excited. We also expected to cook with ease like modern or advance people. So, it was a privilege because it’s not a lot of people who cook using modern methods. We also expected to save and protect the environment.

**Interviewer**: I have to say you are very concerned about protecting and conserving the environment….

**Interviewee**: Yes, right now I am just coming in from my nursery tree site. I have small trees, which I intend to plant at some point to help bring back the environment.

**Interviewer**: Where did you get this heart? Why are you so concerned about the environment?

**Interviewee**: I do not really know. But, I think it’s about looking back in time. Back in the days, we had a lot of trees, and it hurts me a lot now to see that the world doesn’t have trees anymore. I’m also concerned about the future generation, that if we continue cutting trees as we are doing, will they find any. Yeah, that’s how I feel about the environment.

**Interviewer**: Interesting! What were you told to expect by the installers? I have heard some saying they were told that there were going to get lighting and fertilizer from the digester. What were you told to expect?

**Interviewee**: They said something like that. They said that at some point they would come to make it produce light. But, at that particular time, they said they were installing it for cooking energy only. And, they never came after that to give us the materials to enable it to produce light. So, we never used it for lighting. They simply gave us the things you have seen; pipes, stove and the digester bag.

**Interviewer**: Did they tell you when they were going to come to put lights for you, and what things they were going to bring to make that possible?

**Interviewee**: They didn’t tell us the time when would come to do that. They didn’t tell us also what materials would be required. They just said they were going put lights in the future.

**Interviewer**: Okay, what kind of training were you given by the installers?

**Interviewee**: We had no training.

**Interviewer**: Then how were you able to switch it on and off?

**Interviewee**: The time they were installing it, they called us to show us how to switch it on and off. They asked us to do what they did. We did and that is how we learned how to switch it on.

**Interviewer**: Apart from switching it on and off, what else, did you learn? Or, what else did they show you?

**Interviewee**: They told us how to prepare feedstock. They also taught us how to make a certain thing made of sticks to lay and weigh the bag down when there was little pressure. On top of the sticks, we did put heavy stones to add weight.

**Interviewer**: You made this thing while they were still around?

**Interviewee**: Yeah, we made it together.

**Interviewer**: How prepared to run or operate the reactor did you feel you were?

**Interviewee**: They told us that they were going to come again to train us, so that we could be conversant with it. But, they never came back.

**Interviewer**: Oh?

**Interviewee**: Yeah

**Interviewer**: Why didn’t you go to the agriculture office to follow up?

**Interviewee**: The area agriculture officer was also part of the group. He used to stay where we visited together last time and found that he had moved. So, he was given a digester too. But, among the group, his digester was the one that failed first. He even had more issues than us (laughs).

**Interviewer**: (Laughs) it was tough!

**Interviewee**: (laughs) it was a new thing to him too.

**Interviewer**: How did you meet your energy needs before the intervention?

**Interviewee**: We used firewood and charcoal. That’s our charcoal burner there. We also had an energy efficient woodstove, but it has broken not so long ago. We used to put one wood only to cook on it.

**Interviewer**: Did it come with United Purpose?

**Interviewee**: Yeah. They had a project in one of the villages around. I think they taught them how to make the stoves. So, it was the people from that area, who sold us the stove.

**Interviewer**: How much was it?

**Interviewee**: It was K1000 that time.

**Interviewer**: So where were you getting the wood?

**Interviewee**: From a certain area.

**Interviewer**: Where exactly?

**Interviewee**: It is place that far side.

**Interviewer**: Do you buy charcoal? Or, you make it yourself?

**Interviewee**: We buy; we do not make ourselves.

**Interviewer**: how many bags of charcoal were you using thattime, and how much did the bag of charcoal cost?

**Interviewee**: That time charcoal was cheap; a bag was K3000.

**Interviewer**: In a month, how many bags of charcoal were you using?

**Interviewee**: Two bags.

**Interviewer**: How much is a bag of charcoal now?

**Interviewee**: It’s K5500.

**Interviewer**: Eh, where do you get wood now?

**Interviewee**: From a far place.

**Interviewer**: Is it at mountain?

**Interviewee**: Sometimes we go to the mountains, yeah. However, the mountain now is bare; we do not find wood no more. If you can look around, you can’t tell me where you can firewood now. It is all gone. Now we are just using maize stalks.

**Interviewer**: What challenges do encounter when gathering wood?

**Interviewee**: Wood is scarce these days. It is very hard to find. And, when we go to get wood, the owners of the land refuse to share wood. So, we meet resistance from the people, and not the forest guys - there are no forest officers where we get wood.

**Interviewer**: What is the difference of cooking on biogas and on charcoal or firewood?

**Interviewee**: Biogas is slow. It produces fire with weak flames.

**Interviewer**: But, I thought you could always increase intensity of the fire with a control knob….

**Interviewee**: We did not know where to increase intensity of the fire on the stove. We only knew how to turn it on and off. We were only told how to switch it on and off (laughs). They did not show us the control knob for adjusting fire intensity.

**Interviewer**: (laughs) Maybe you were using it while the volume was on one instead of five.

**Interviewee**: [goes to get the stove] this is where we were turning it on and off. The gas itself was always cool. When we did put a hand on the stove to feel the gas, it was cool. But once, it was light up with a matchstick, the flame was hot.

**Interviewer**: The problem could not be you or the stove; the problem could be that your digester was simply producing little gas. Okay, you had cows and goats, and you I can see you still have them. How did you manage feedstock before the intervention?

**Interviewee**: We were just leaving cow manure in the cow house. Sometimes some people would come to collect the manure. For example, cottage owners would come to collect manure for landscaping purpose, to make the grass greener. Farmers also used to come to apply it in their farms. And, even ourselves we used to take the manure to the farm especially during rainy season. Sometimes, we were just throwing it away.

**Interviewer**: Did you sell the manure to the farmers or the cottage owners?

**Interviewee**: No, we were just giving them free. We have never sold manure. Some weeks back, some people came to get my manure for their trees. But, we’ve heard that some people do sell manure.

**Interviewer:** Cow manure is fertilizer, why do you let fertilizer go for free?

**Interviewee**: (laughs heavily) we are just happy when it is out of our cow house. But I can see us selling soon because most people won’t have fertilizer… But, we give for free because when it’s there we hire people to get it out since it`s a nuisance to the cows. So, when we see people coming to remove for free, we are happy because it saves us money that would have been paid to hire workers (laughs).

**Interviewer**: (laughs) I see. So you also take the manure to your farm, right?

**Interviewee**: This year we do not even have a choice. And, we were talking about that too some days back, that we should start taking the manure to the farm in August.

**Interviewer:** How much manure do you make from a cow house?

**Interviewee**: We get 100kg.

**Interviewer**: In what period?

**Interviewee**: In 2 months.

**Interviewer**: Okay, let’s talk about how it worked. You said on the first day, you helped them to prepare feedstock by collecting manure, water and all that, to feed the digester and start it up. How much feedstock did you start it with?

**Interviewee**: We started with 6 bags of cow manure and 6 drums of water.

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

**Interviewee**: After feeding, it with all that, I think it took five days for the bag to fill. Then, I notified them that the bag was fully inflated and they told me that they were going to come. When they came, they put the pipes, assembled the stove, and started it up. They showed us how to switch it on, and that was the only thing we comprehended. Then, asked us to switch it on, and it work, while they were taking photo and videos. It even started flushing out digestate before they came.

**Interviewer**: After you called them, how long did it take them to come?

**Interviewee**: It took a week I think.

**Interviewer**: So, we can say it took two weeks to start it. Okay, what were the operation requirements?

**Interviewee**: It required cow manure and sometimes food leftovers. So, instead of throwing away food waste we used to feed the digester with that to keep it running.

**Interviewer**: How did you prepare the feedstock?

**Interviewee**: First, we were placing cow manure in the bucket, and then add water. Then, we were mixing like this [shows hand movement] with hands. After that, we were pouring the feedstock into the digester bag.

**Interviewer**: You didn’t feel disgusting or gross?

**Interviewee**: No, the installers were the first ones to do that, so I didn’t feel bad…. I mean they were like have you seen what we did, can you do that. So, we just followed suit.

**Interviewer**: oh, I see. You have said you had 5 cows and 20 cows. But, your talk has been on cow manure. Did you use goat manure to make feedstock?

**Interviewee**: No, we just used cow manure.

**Interviewer**: Why not?

**Interviewee**: We were not told. They just said we could use cow manure. I heard the same people came a year before with different digesters. For those ones I think they told people to use goat manure.

**Interviewer**: You didn’t get the first ones?

**Interviewee**: Yeah, we didn’t get those.

**Interviewer**: But, you always had goat manure that time?

**Interviewee**: Yeah!

**Interviewer**: So, how did you use goat manure?

**Interviewee**: We were just throwing them away

**Interviewer**: Okay, how many people did use the gas?

**Interviewee**: We were 9.

**Interviewer**: After it started working, how often did you feed it and in what quantities?

**Interviewee**: They just said that once we see little flames coming out on the burner, then we should feed it. It was more like cooking on firewood; once we saw that fire was dying, we were adding manure.

**Interviewer**: At what times, were you getting little fire?

**Interviewee**: it was most when there was no sunlight. If there was sunlight, it was producing strong fire.

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

**Interviewee**: Two buckets (20 liters) of manure.

**Interviewer**: Water?

**Interviewee**: We were just adding water to that. We didn’t have a specific measure because we were not told. So, we were simply looking at the thickness of the slurry.

**Interviewer**: Okay, who was responsible for feeding it?

**Interviewee**: It was my wife and I.

**Interviewer**: How would you describe the task of feeding it?

**Interviewee**: Some will say it was tiresome, so it is better use charcoal. Some will even say it was more tiresome than going around searching for firewood. But, I think when you compare it with charcoal, you will see that you need money to use charcoal. So, charcoal is not an option. So, the task was tough, but not as tough as going to the woods to find firewood.

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

**Interviewee**: In regards to maintenance, we were not told anything. However, they left us their contacts. Unfortunately, I lost the contacts as my phone was stolen.

**Interviewer**: Oh, sorry!

**Interviewee**: I lost your contacts too as my other phone was stolen as well.

**Interviewer**: Oh, we have many thieves in this community, uh?

**Interviewee**: There is a lot of hustling at the lake. We have lots of people there, so when you drop a phone you just know it’s gone. I got your number back when you called yesterday. That is why I was even asking who it was.

**Interviewer**: Good that you have a new one; communication is important, what were you supposed to do in case of a malfunction?

**Interviewee**: If they had told us about maintenance, then it would have been working today. I am sure, my wife and I would have been helping each other on its maintenance. So, since we were not trained, the only solution was to liaise with the agriculture officers. I recall one time; a digester of one of the beneficiaries broke at the gas connector and they fix it for her.

**Interviewer**: You know nothing stay forever. Why didn’t you ask them about maintenance issues?

**Interviewee**: We thought they were going to stick around for some time.

**Interviewer**: Let us talk about how it performance. How much did it produce? How much cooking time did you get?

**Interviewee**: We used to cook around noon, if the bag was full. Sometimes, we used to cook late afternoon too.

**Interviewer**: Why weren’t you cooking on it in the morning?

**Interviewee**: In the morning, the bag was not always full, so we were getting little fire not enough to cook on.

**Interviewer**: Did it meet your needs?

**Interviewee**: During that time, we would cook things. We would cook nsima and side dish [45 – 90 minutes]. Sometimes, when the bag was not full, we could not manage to cook nsima or dish side. Sometimes, fire was going off whilst cooking, so we would find other alternatives to finish.

**Interviewer**: What alternatives?

**Interviewee**: We would set fire on charcoal or firewood.

**Interviewer**: Okay, what were the challenges?

**Interviewee**: It started leaking at the gas connector. I think that was the only challenge we faced.

**Interviewer**: How did the problem manifest?

**Interviewee**: We could see bubbles or water coming outat the gas connector.

**Interviewer**: Once the biogas broke, what did you do?

**Interviewee**: There was nothing we could have done because we didn’t know anything. We thought that if we would do anything, then we could make the problem worse.

**Interviewer**: How long did you use it before it stopped working?

**Interviewee**: It took two months; the first month we used it without problems.

**Interviewer**: When this happened what did you do?

**Interviewee**: We reported the issue to the agriculture office. They came and told us that they couldn’t manage to solve the problem, but the installers. Then, they disassembled the pipes, stove, and told us to keep the equipment safe. However, they left the bag in the hole.

**Interviewer**: Did you feed it after that?

**Interviewee**: After removing the equipment, we never fed it again. There was no point of feeding it because it was of no use.

**Interviewer**: How long did it take the gas connector to break down?

**Interviewee**: After a month and some days, I think.

**Interviewer**: (laughs) suppose you were giving something like this. For example, it tells you if there is a leakage, do this and do that. What do you think of this information and could it have helped?

**Interviewee**: Yes, the information would have helped because I could have helped us to find the causes of the problems and their solutions.

**Interviewer**: But it’s in English, can you read?

**Interviewee**: yeah, I know how to read.

**Interviewer**: So, it would have helped?

**Interviewee**: Very much.

**Interviewer**: So, if you had this we would have been talking about a different story?

**Interviewee**: Yeah, if we had that, then we could have accepted that we were responsible for its failure. And, if it could have failed, it would have been because of a huge problem. Not a small one as the one had... And, I`m sure, we could have managed to solve the problems which are on these papers.

**Interviewer**: So you think you’re not responsible for its failure.

**Interviewee**: The problem is the installers because they did not give us the expertise to manage the digester. If we were only told when you have this problem do this and do that, or if we had booklet like this, then we could have managed it.

**Interviewer**: Today is 27th of July. How would you describe your digester today?

**Interviewee**: It’s dead; we can’t say it’s working, no!

**Interviewer**: It’s completely dead?

**Interviewee**: I’m saying it’s dead because we are not using it. Maybe if they can do some major rehabilitation work, it can work again. Maybe if the installers can come and work on it, then it can work. - It’s a maybe though. But, we can’t say the digester bag was punctured no, it’s not. The digester bag is okay.

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

**Interviewee**: We have all the equipment except for one bottle, which had sand like things in it. And, I don’t even think it’s completely missing. I think if we can search around the house then we can find it.

**Interviewer**: So you have everything intact. Okay. In your opinion, how did it reach this state?

**Interviewee**: The problem is we did not receive expertise to manage it; they only told us how to use it in the hole, but not how to fix any problem. Had it been that we received training, I’m sure we wouldn’t have had any problems… Only one person received training though, and it was after she was given another digester before these one. But, when she was given the out the second digesters, she didn’t receive training as the rest of us.

**Interviewer**: If new digesters can be given to people, and then train the people, do you think in 5 or 10 years, they would be working?

**Interviewee**: Yeah, no doubt. What can stop us is death (laughs).

**Interviewer**: Now, that it is not working how do you meet you energy needs?

**Interviewee**: It’s what we have said basically, we use firewood and charcoal. Now, we are using maize stalks and cobs.

**Interviewer**: We are going towards the end of the interview. You have told me you don't know how much money was involved, but it's a lot, right?

**Interviewee**: Yeah

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

**Interviewee**: No, nothing. Nothing at all.

**Interviewer**: Cement?

**Interviewee**: No, the hole was not lined with a brick wall. However, at first they told us that the hole needed to be lined, so we sourced some bricks. But at the end, they told us that they would not line it.

**Interviewer**: Why?

**Interviewee**: We do not know. Maybe, they came up with a new plan. Moreover, we wouldn’t have asked then why.

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

**Interviewee**: We had the bricks.

**Interviewer**: Okay, who is supposed to provide the cement to line it up?

**Interviewee**: They said they were going to provide.

**Interviewer**: OK, you said you did the digging, right?

**Interviewee**: Yeah.

**Interviewer**: How many people installed it?

**Interviewee**: It was two people, and they came with the district agriculture officer. Then, some other people came on the day of its installation. I think it was the boss, who assembled it.

**Interviewer**: You are talking about two different days?

**Interviewee**: The two people and the DO [agriculture officer] came on the day we dug it. On the day of installation, many people came. I think they came with 3 cars. It was a lot of people.

**Interviewer**: It was more of a function or ceremony.

**Interviewee**: Yeah (laugh). People were taking videos and all that.

**Interviewer**: Only to last for 30 days or so.

**Interviewee**: Yeah. The gas connector that got broken, and that was it. The part looks like where you pump air into a car or bicycle. It is that part!

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

**Interviewee**: This stove looks like it from Malawi. The bag I don’t know if it’s from Malawi or not.

**Interviewer**: Can we find the digester bag in Mangochi?

**Interviewee**: No.

**Interviewer**: Blantyre?

**Interviewee**: No, it is not from Malawi. However, let us not rush to conclude it is from another country…. The bag was not even written where it was manufactured.

**Interviewer**: Did the digester save you any money in terms of energy consumption?

**Interviewee**: Yes, because we did not buy any charcoal around that time. Of course, we were not using all the times, but the money we were spending around that time was not as before.

**Interviewer**: How much money do you think you saved that time?

**Interviewee**: Maybe, we saved K6000. We use two bags of charcoal a month, and we used it for a month or so. The price of charcoal was K3000 a month then. If it was now, we could have saved K11000 or K12000.

**Interviewer**: Oh, that is a lot of cash. What is your opinion of biogas?

**Interviewee**: We want biogas again, and we want it work this time.

**Interviewer**: Why? Is it good?

**Interviewee**: It is good especially when you think of where we are going. We are going to an era where trees are going to be very scarce. Therefore, we do not know what will happen. Secondly, I would be very happy if we can have the privilege of having wonder bag. It is a very good thing to have. It is makes life easy. You do not need to be there to boost the fire after ignition. You just leave the beans there and go to the farm. You do not worry if the beans will get cooked or not because you are sure you will find them cooked.

**Interviewer**: What is the future of biogas in Malawi?

**Interviewee**: The way the project was run here; one is inclined to think that it has no future. But, if the people were given skills to run the digester, I’m sure you could have found them working today. And, I’m sure many people would have adopted it in their houses. People were coming to admire it here. This house was full of visitors, who were coming just to see it. So, I’m sure if it had worked as expected then many people would have got it. Some would have even been willing to pay for it. Just like people are buying solar panels now…. I liked it because the flame was clean. The pot stays clean as if it was not on fire. It can even prolong the life span of pots because there is no need of cleaning it up with sand and all.

**Interviewer**: I think you have answered me this one, still I am going to ask you. If you could have designed your own waste or energy intervention, what would you have chosen instead?

**Interviewee**: I would have gone for wonder bag. I could also go for biogas, only if it is done in a different way.

**Interviewer**: What do you mean?

**Interviewee**: We need a durable digester that would not break in a month; we need training, and the project implementers need to follow up to offer support to the users.

**Interviewer**: Great, in closing, what are your last words?

**Interviewee**: I will just urge people to continue using biogas to save environment, and be modern people. That other thing about biogas is that it gives you freedom because biogas stoves provide instant heat upon ignition and that is very important. When you have biogas its like, you have a water tap at your house. For a person in life to have a peace of mind, he needs to have a modern technology of cooking and safe water. So, if it could be done in a different way, then we would be willing to accept it. The other thing is that we are old, and the environment is dying, so in the near future will be able to meet energy needs with firewood. So, we need biogas because it is easy to use; you can you even ask a child to help you make feedstock, and cook. So biogas needs to continue.

**Interviewer**: Thanks for the interview.

**Interviewee**: Welcome.