

Community built stoves / Tariro Cynthia Mutsindikwa

Meet the engineer behind Score Against Poverty's fuel efficient stove in Mwenezi Zimbabwe. Cynthia discusses the importance of the community being involved in the design. You'll hear about the involvement of the women, the engineer and the local artisan all a part of making it efficient, sustainable, and easy to use. "if you involve them you know that the rate of failure is low and you know that the model that you are going to design or make you are sure that the women will be using it"

Cynthia: So the good part is, if you involve them you know that the rate of failure is low and you know that the model that you are going to design or make you are sure that the women will be using it.

That was Tariro Cynthia Mutsindikwa, engineer and clean energy officer for MCC Partner Score against poverty in Mwenezi Zimbabwe. She's talking about the importance of involving the community in the design of Score's projects.

I'm Christy Kauffman and you are listening to Relief, development and Podcast, a production of Mennonite Central Committee.

**Theme*

Today we are heading to Zimbabwe to cook up some behind the scenes on our projects on fuel efficient stoves. They were one of the many gifts that were featured this year on MCC Christmas Giving guide. Today I have a conversation with Cynthia, the engineer who has been heading up this project in Mwenezi Zimbabwe. Now to that conversation.

Christy Kauffman

How are things in when Mwenezi?

Cynthia Mutsindikwa

Good things are going well. So currently, we are now in the final year of our project whereby we are now polishing up everything to make sure that now we meet all the goals and objectives of the clean energy project. Yeah, but of course, we are facing some challenges here and there, especially the heat, it is it's very hot. But otherwise everything is okay.

Christy Kauffman

What season is it? Is it in Zimbabwe right now? Is it wet or dry?

Cynthia Mutsindikwa

So currently it's the wet season during this time, we are supposed to receive the rains. And for now, we are receiving the rains, the temperatures are too hot sometimes 40 or 41 degrees. So although it's our wet season, is difficult to know that it's wet season because we are not a lot of rain this time around.

Christy Kauffman

Yeah. What are the challenges that come with that?

Cynthia Mutsindikwa

Okay, so the challenges that come with that, so so maybe now, so if we don't receive rain, then everything will fail, we will have food insecurity. And of course, people will be hungry for the whole year. So that's one of the main challenges. So we just hope that maybe ready to come around end of this December or maybe in January. So that at least we can although we can have maybe drought, but at least it should be like it should not be too much so that at least the farmers can get something maybe that can take them maybe until August next year. But like if we don't get anything now, it will be so difficult for people to spend the rest of the year with nothing.

Christy Kauffman

Yeah, it's a hard context, especially when the rain or the weather isn't cooperating. Yeah, so what clean energy technologies were you working on today? I'm curious.

Cynthia Mutsindikwa

So today, what I did is that in the morning, I met with my artisan Oh, he's called Mr. Mukwiri And we were designing the design for like designing of a fuel efficient stove. So I collected some models, from my participants, like drawing models. And then so I went to give them to my artisan in the morning and we were assessing them, redrawing them, trying to improve so that we can able to come up with something at least by Wednesday next week. So when we come up with, let's say, one prototype, then we go with it again to the community. And then now we can at least ten the women ten the women who test that prototype, if they like it, then we are going to produce more. But if they don't like it, or maybe they make some recommendations, I go back again to the artisan, and then we, we make the improvements together. And then from there, we can be able now to make the post model and we we must produce it and we give to our to our participants. So I did that early in the morning. And then after that I went to the office when I was writing my clean energy reports, hoping that maybe by next week, Friday, I'll be the almost through with writing the report. So now, I'm now home after a week, or like, I closed the 16:30. And then now I'm at home.

Christy Kauffman

Yeah, I want to ask you more questions about your morning with the artisan. I'm curious what that process is like with the community and with a local artisan who's building the project and with you as an engineer. What does that process look like?

Cynthia Mutsindikwa

I can say that the process is a community based process, whereby our idea is we want our participants to be the center of the project. So what we were doing, it was just a participatory planning, whereby last week I met with women I, I met with a group of 10 women, whereby I told them that now we have to, it's now time for distributing fuel efficient stoves again. But as usual, what we do is we come up with a drawings, we draw different designs. So I showed them some designs and then also, I told them also to brainstorm on their own, so that they can also be able to come up with their own design. So you know, women here they are very creative. So they started drawing different designs, they were correcting each other, improving each other then after that, we came up with a with one, one design. So then

today, now, I went and met the artisan in the morning. So I went with two ladies, like two ladies, these two ladies are leaders of the of the committee reflection circle, which is mainly working on the design of the fuel efficient stove. So when I went with the two ladies, we showed our design to the artisan, then we started giving each other like constructive criticism, like what can we do to make this this model better. So we did some, some improvements, we made some adjustments. And then after that, we worked for us so, we do not have the workshop. So we cannot like you, we cannot make the prototype ourselves. So the women also able to tell the artisan what they really want. So yeah, so we had, I would say, a one hour 30 minute session, whereby we will be deliberating more on the best design. And then after that, the artisan will now start making our prototype. So we hope that maybe by next week, at least he can be able to give us one prototype. And then now we go back again to the 10 women, when we told them, "this is the design that you, you wanted or that you selected. So now go and test it." So now we are going to give them to our participants, they will go home with them, they'll test them for two weeks. So while they tested them for two weeks, at least they'll know, they'll know if it's good, or it's not good. So if they think it's good, we are just going to make 50 more, but if they say it's not good, we are going to make some adjustments, like to make some improvements to the design. And women will be the ones to say maybe adjust here, maybe adjusted the diameter, adjust the height or the length, or maybe add some holes for air or maybe reduce the holes for air, maybe the air that is entering is no too much. Or maybe how about you, you change like the material of the stoves, maybe we want maybe a a more stronger material. So it's like the women, they're the ones who are going to decide after we produce one prototype. And then from there, we will go back again with the two women again to the artisan. And then we redesign, based on the minutes from the meeting that we are going to have with the 10 women, and also based on the remarks that they're going to give us after testing this stove for two weeks. And then after that, we make the, I would say the best and final model. And then we distribute our 50 efficient stove, fuel efficient stove. So for this year, again, we are going to give 50 fuel efficient stoves.

Christy Kauffman

I think it's incredible how you're working with the community in the design of these stoves. What do you think that does for the community itself and how they feel about the technology.

Cynthia Mutsindikwa

So I would say that the women are very open to the new technology. And one thing they like is, is being involved. Like they feel really like they feel that their views and their opinions are being respected. So it's different for me, just deciding for them. Let's say that Ah, So this year, ladies and gentlemen, we are going to be designing this model. But now they feel that they are the ones who are the owners of the project. They feel respected, they feel that I mean, they're the ones who like who own everything. So, the good part about this is that there will be like access acceptability rate will be very high and also the adoption, for example, during the first year in 2021 when we did also this process, a lot of spontaneous adopters came to us to like requesting to buy the fuel efficient stores because they heard it from the other participants that we were working with. So when and then we told them that no for us we don't sell these fuel efficient stoves, actually we make them. So the good part is that if you involve them up, you know that the rate of failure is low. And also you know that the model hat you're going to design or make, you are sure that the women will be using it. Because it doesn't make sense that we go to the workshop, we do all these long process, and then people collect the stoves, but then they just pick

them, they don't even use them. So for me, I feel like it would be a waste of resources, especially from our donors, or even for the people who even fund our donors. So, but now, if we take our time, we involve them, they design what they want, we know that women they will appreciate and also they will adopt the idea. And also they feel like they are the owners, and they feel like that they're also partners in the project. That way we know that the sustainability, yes,

Christy Kauffman

yeah, it makes it more sustainable. And also, yeah, it makes people feel more a part of it. It's not just a one way. thing. It's a conversation. Yeah.

Cynthia Mutsindikwa

It's more like partnership. cause, this is like, because if I just give them those say, oh, Cynthia imposes this stuff on us. But for us, we know we don't like it because of this. But now they will say we designed this. So if someone is saying "we" then the deal is sealed, she's part of it. Yeah.

Christy Kauffman

And what are the problems that the women who are receiving stoves, what kind of problems are they facing that these stoves help solve? What are the challenges that the stove makes life easier for them?

Cynthia Mutsindikwa

Okay. So here, in Zimbabwe, I would say maybe, in our context of Mwenezi, oh, people, because our participants, they do not have access to electricity. So they so I would say 100%, or our participants before our project that we're cooking with fire wood. So now, because of climate change, because of land degradation, even forests that are nearby are depleting. So now it was difficult for our women both they have to walk long distance to go too far away farms so that they can go in there and fetch firewood from those sites. Sometimes they can even walk maybe five kilometers just to go and look for firewood and then also they walk again five kilometers coming back. And you know, Mwenezi's very hot sometimes it could be 40 degrees. So imagine maybe a 50 year old woman walking 5 kilometres to collect firewood, and it's hot. And now she's returning walking five kilometers again, its hot she's now carrying a bundle has firehead on her on your head. So it was something very difficult for them. So now with our fuel efficient stoves, yes, they're still looking for firewood, but it's now different. Because I they're, they're quite small in size. So they use very small sticks, like when they are cooking. So it's like now they no longer need to walk all those long distance, they can just collect some few sticks around. Or they can even use, especially, let's say after harvesting, they can use our maize husks to they can also be used even as fuel for cooking. So like it makes their life easy. And even if now they walk that five kilometres, they know that they can walk five kilometers, yes, but they'll use that firewood maybe for three months. Because we are saying that our fuel efficient stoves, they're very efficient. They're efficient in terms of fuel, they use very little firewood. And also the heat from our fuel efficient stove is directed straight to the pot. So these fuel efficient stove they really made the lives of our women very easy, because now they also have productive time to do productive work. And also now that comes with with I would say, self confidence. They feel that they are empowered, because now they can just collect maybe a few maize husks, they put water they they boil water, they prepare tea, they eat with their family. Unlike before, whereby maybe they would be going twice a week to collect firewood. So I would saying that these fuel efficient stoves they're really making their life easy.

And also in terms of health. Because when they were cooking with the traditional three stone cooking method, that method of cooking one is not efficient at all because it wastes a lot of firewood. Sometimes you can even use the whole bundle, because, well, there are a lot of heat losses. But now, because now they're using fuel efficient stoves, you can actually see that, really, there is change, a great change. And also, the smoke from that three stone cooking method sometimes it would even affect their respiratory system, and sometimes it would even affect their eyes. But now, because of fuel efficient stoves, we feel that all those chest problems or all those respiratory issues, which are caused by smoke from cooking with firewood, we can, although we are not like ending everything, but we can say that we are reducing those risks. So I mean, when we are reducing, then we know that at least we are going somewhere, at least we have a goal that we want to achieve. I mean, this one is really making their lives easier.

Christy Kauffman

Yeah, you listed several benefits there, you said there's health benefits, because people are not inhaling smoke as much. And there's also health benefits, I think probably in not having to carry large loads of wood for long distances. And there's also just, yeah, not having to need as much wood. And that also impacts the environment as well. Right?

Cynthia Mutsindikwa

Exactly.

Christy Kauffman

Yeah, I'll let our audience know, I got the honor of seeing this project firsthand. And I was with one of the women that has a fuel efficient stove.

Cynthia Mutsindikwa

It was Ntombizodwa.

Christy Kauffman

Ntombizodwa. yes, she demonstrated what it was like to carry the wood across the countryside. And I asked her if I could try it. And I put it on my head and it is so much heavier than I had expected. And it just impacted me that that is something that they would have to carry for so far. Yeah, it would be a lot of work and a lot of time.

Cynthia Mutsindikwa

Exactly. Yeah. So yeah. So now with this project, we know that at least their life is becoming easier. At least now they have productive time. Even, we can even say not only productive time, but also they even if time to rest, just to sit under the tree, under the shade and I mean, and meditate. Yeah, yeah.

Christy Kauffman

So the project currently, in the cycle of MCC projects is kind of coming to an end. But there's going to be a next iteration of the project, correct?

Cynthia Mutsindikwa

Yes.

Christy Kauffman

What is? Is there anything shifting or changing in the new iteration of the project?

Cynthia Mutsindikwa

Okay so now the project that is starting, it's like it's a big project. That one is a landscape approach projects, which looks at many activities like there is wetland restoration, there is rehabilitation, there's conservation agriculture, but also the clean energy component, which is the same as what we were doing before will also come under this big project. So I will say that maybe what is just different is that the Clean Energy Project under this new project, we will not have the solarization component, but components such as biogas digesters, such as fuel efficient stoves, as such as climate advocacy, tree planting, they are also there in this new LINCZ project. So I would say that we actually very lucky that when our clean energy project was about to end, we also got this new funding, which is actually even making more impact because this one is a big project. And also it is actually more funding. So we know that we are going to impact I mean, a lot of people in Mwenzezi community.

Christy Kauffman

Yeah you guys got a lot of funding for this project. And I think that's in recognition of the good work that you have been doing. Yeah, it's showing the impact is there. And there's a need. Yes. And so one of the things I wanted to recognize this fuel efficient stove is something that many people here in the United States and in Canada, are buying fuel efficient stoves from MCC as a gift, like a Christmas gift for someone in their family, maybe someone who likes cooking or cares about climate change or something else. What would you say is the impact of one stove to one woman in Zimbabwe? Could you talk about what that impact looks like for her?

Cynthia Mutsindikwa

Okay, so for us, the just the procurement of one fuel efficient stove from MCC, I will say that it will impact many lives here in Zimbabwe, because we know that when those stoves are procured, as a partners in Zimbabwe, we will receive funding, funding now that we will use to implement projects that will alleviate poverty, projects that will help the lives of women that will reduce the burden that they bear each and every day. We know that with just one fuel effecient stove procured for women here in Mwezeni. And from that those women, they can have time to rest, those women, they will no longer inhale that smoke, which is hazardous to them. Those women they we have more confidence, those women that we have even time to do our income generation projects, so that their livelihoods can be improved. So really, we are so grateful. I mean for this for this gesture, because we know that when they are procured the lives of women and even men, children and everyone is elevated here in Zimbabwe.

Christy Kauffman

It affects the whole family. Just one, I am realizing that this is an audio podcast, and maybe some people haven't seen a fuel efficient stove. Do you think you could describe what a fuel efficient stove

looks like? What does it sound like? Can you hear the flames? Can you smell the smoke at all? What is the experience of a fuel efficient stove?

Cynthia Mutsindikwa

Okay, so fuel efficient stoves, I would say that they are different in nature. So I would say that our fuel efficient stove is any stuff that can just that is just efficient on fuel that people can use for cooking. So what we have we have an outer casing for all of the housing and then we have an inner casing. So an inner casing has holes, on its walls so that at least air can circulate. And then now, on that inner casing, that when we put our fuel, we can say maybe we we can put our maize husks or we can put our wood where we are we are cooking, and then now we put a stand on top of those housing. So that stand or this is where now at the pot can fit on top of that, and then also on the outer casing, there is also an opening so that air can be able to enter into the inner casing. And then now that inner casing that air now can be used for combustion, like when we are now producing the heat or when we are now cooking.

Christy Kauffman

And I wanted to ask you, personally, why do you have a motivation to work on clean energy projects?

Cynthia Mutsindikwa

I want to do projects that impact in the community, projects that can restore our environment, projects that can adapt our communities that can build our resilience. So the only way now we can do that is when now we integrate climate change with the development. So when we have the climate development nexus, we now include the clean energy because now clean energy will fit there. And then now we by giving biogas digesters, by solarizing, we know that our the lives of our participants are becoming better, but at the same time, we are saving our environment. Like everything that we do should be eco friendly. We should be environmentally conscious. So I would say that's my motivation, my motivation is to make sure that we all live in a in a good environment, an environment that is green, an environment that is not harmful. That's why all of us we have to go green.

Christy Kauffman

You have quite a motivation for clean energy projects. And I guess coming into this next year, you guys are expanding on what that work will be and that's very exciting. And I'm glad that we all get to be a part of watching that process. And you get to implement that.

Cynthia Mutsindikwa

Yes, yes.

Christy Kauffman

Is there anything else that you want to make sure to share that I haven't asked you about?

Cynthia Mutsindikwa

Oh, I would say that. We can just say is that here in Mwenezi, yeah, we are really, now feeling, the impacts of climate change. And they are really affecting our communities, especially when it comes to droughts, flooding and cyclones, especially this year it's a drought year. So because of this, I mean,

what we are now doing is just climate advocacy, we all have to know that there is climate change. And I mean, we cannot deny that climate change is the climate change is real. So what we are doing is now is that we are just trying to build our resilience to the climate shocks, and also trying to make sure that our environment is friendly. We are planting trees each and every year. It is our hope that we can continue making our lives green here in Mwenezi so that even when it becomes to hot, but when we have the green environment, our lives becomes better. Thank you.

Christy Kauffman

Yeah and one of the things that MCC is doing currently is we have some climate advocacy happening on this end, that we are labeling Climate Action for Peace. Do you have any thoughts about climate action and how it relates to peace?

Cynthia Mutsindikwa

So I would say that climate action and how it relates to peace is in this way. Climate and peace. They're interlinked. Because when there is climate change, conflicts will arise and when conflicts arise peace will be disrupted. So what we need is Climate Action for Peace. Because we know that if we do climate action, if we do projects that combat climate change, projects that build our the resilience of communities to climate change, we will have peace. So climate and peace, they're interlinked when we have climate action we have peaceful nations.

Christy Kauffman

Yeah. Yeah. Well, thank you so much for speaking with me today, I really would love to come back to Mwenezi and continue to see like, what kind of changes are continuing in that community, because it was really beautiful to see your climate projects, and specifically fuel efficient stoves. You could see the excitement that the women had around that project. It was very cool to see. And I'm glad that I had the privilege of viewing that.

Cynthia Mutsindikwa

Exactly. And also, it would be great to see you again in Mwenezi, you should find time in visit us. And now you, you come in see like now how many bio gas digesters that we have, how many fuel stores that we have, now you can actually be able to see the impact? Because now, I mean, it's been. It's been long so obviously, you see great change. So sure. We are waiting for you here in Mwenezi. Please come.

Christy Kauffman

I would love to. And I know I would be welcomed there.

Cynthia Mutsindikwa

Yes, sure.

Christy Kauffman

All right. Well, that's all I have. If there's anything else you'd like to add, now's your chance.

Cynthia Mutsindikwa

thank you for giving me this platform to talk more about the clean energy project that I've been working on for the past 2.5 years. Thank you so much.

Christy Kauffman

Yeah it's definitely one that we are looking forward to highlighting again, as well. And this particular podcast episode we're actually going to be sending out to people who participated in Christmas giving, and people who purchased fuel efficient stoves from our Christmas giving catalog will be able to hear a little bit more behind the scenes of what the process is like to have fuel efficient stoves in Mwenezi. So yeah, I guess you you're talking directly to people who have purchased fuel efficient stoves for MCC projects.

Cynthia Mutsindikwa

That's amazing. Thank you for the opportunity.

Christy Kauffman

Thanks for listening. If you gave a stove for Christmas this year, or any of the other gifts from the Christmas Giving Guide thank you. Even a small gift like a stove can make a big difference.

If you want to learn more about the context or projects in Mwenezi Zimbabwe, Cynthia was also featured in a short film that MCC produced with the title Women will renew. It digs deeper into other aspects of the clean energy projects there as well as Cynthia's personal motivation for her work. It is a great way to see and get to know the people and project. The film is linked in the show notes you can simply google "women will renew" and you can find it that way as well.

For our next episode we will be having a much-needed conversation around Gaza. Be sure to watch for that in February or subscribe to automatically get notified of that episode.

This episode of Relief, Development and Podcast was produced on the traditional land of the Algonquin, Lenape, Nanticoke, Piscataway, Shawnee and Susquehannock people groups.

It was recorded and produced by me, Christy Kauffman, and the head producer is Emily Loewen.

May you experience God's provision and protection as we work together to share God's love and compassion for all in the name of Christ.

Thanks and take good care.

Outro