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| **0Interviewer name** | INTERVIEWER |
| **Sub-contractor organisation** | ARU |
| **Interview date** | XXXX |
| **Duration of interview audio recording** | 1 hour 35 minutes 49 seconds |
| **Face-to-face or virtual interview** | Virtual |
| **Interview participant** |
| **Code** | I13 |
| **Participant name** | RESPONDENT |
| **Organisation name** | **XXXX** |
| **Gender** | Female |
| **Stakeholder category** | Research assistant and Gender specialist for implementation programs. |
| **Country** | India |

**Introduction**

**INTERVIEWER** 00:05

So without further ado, let's start on the interview. Good afternoon, XXXX. We are very appreciative of your time in participating in our study. And as I have briefed you, the study is being conducted under the aegis of Anglia Ruskin University, and we are looking at gender equity within energy access, specifically in the global south in response to the Sustainable Development Goals that have been set up by United Nations.

**RESPONDENT** 00:42

Right.

**Consent**

**INTERVIEWER** 00:43

So before we start, I just would like to check a few mandatory requirements for my interview to proceed. Number one, Have you completed and returned the consent form?

**RESPONDENT** 00:54

Yeah.

**INTERVIEWER** 00:56

Through this interview, we would request you to share your experience and expertise as someone working in the energy sector as well as your views and opinions on gender equity, within energy access, is it okay if we record the interview for documentation purposes?

**RESPONDENT** 01:11

Yes

**INTERVIEWER** 01:11

The recorded interview will be transcribed for analysis, and a copy of the transcript will be shared with you for your approval. All the information we obtain serves the sole purpose of this study, and will be seen only by the research team, your name and any other identifying features will not be used anywhere in reports and other publications emerging from the study. And the interview should take more or less about an hour.

**Part 1**

So if all that is clear, then we can move on with the interview format? To start off, can you briefly tell me about your current work position and your organization.

**RESPONDENT** 01:49

Sure, I will start with the organization. So XXXX, is XXXX. We are a XXXX

**INTERVIEWER** 04:43

What about electricity? Have you looked at electricity access?

**RESPONDENT** 04:46

Yeah, I mean, we do work on access to electricity and power and much in much more depth about power sector reforms and a lot of my colleagues are working very directly with XXXX on looking at how to make it more inclusive. And everything by my work, particularly with access to electricity has been limited. One of the recent one that we did was to conduct a gender perception survey with households, XXXX And it's also very interesting to look at how like, what are men saying of the same household versus what are women seeing with the same household? So yeah, that's been my electricity level work.

**INTERVIEWER** 06:24

Right? And could you also tell me a little bit about your background, and how and why you got into this line of work?

**RESPONDENT** 06:31

Sure, sure. So I did my undergrad in XXXX.

**INTERVIEWER** 07:34

And, and your work is mainly research, or are you also working on project designs for implementation or anything like that?

**RESPONDENT** 07:44

So far, it had been more research, both quantitative and qualitative. XXXXX

**INTERVIEWER** 09:08

That program is more on that decentralized, renewable enterprises?

**RESPONDENT** 09:12

Yes, yes, yes, yes, but might with a very gendered focus there. It's called XXXX. I can share the link with you, later. Yeah, we also design a lot of pilots with the government sometimes, or even someone else who is doing it.

**INTERVIEWER** 09:28

Which government?

**RESPONDENT** 09:29

 So for clean cooking energy, we work very closely with XXXX, the XXXX. So recently, we were working on trying to so XXXX wanted to try out this method of XXXX. Do you know about it? Yeah, I think so. I along with some of my colleagues who were doing interviews with these XXXX to understand how the pilots have gone I think they've done it in XXXX already, and they wanted to see what is the... what would be the situation if they want to scale it up to other states?

**INTERVIEWER** 10:07

So its like a post project analysis?

**RESPONDENT** 10:10

Yeah, I mean, it's not as formal, but they just needed someone to do a broader analysis. I think that that is something this is ongoing, with XXXX, we work closely with the XXXX as well. So recently, they put out this draft policy for clean energy and livelihoods. And we've been able to drill down gender into that policy as much as we could. And we've we've seen that impact with the Director talking about it, and those elements being retained in the policy language. So yeah, I think.... did I miss answering your question?

**INTERVIEWER** 10:54

Its Ok, because my next question was what specific energy related activity so that's our, that's fantastic. And so how much of this is about energy access?

**RESPONDENT** 11:07

Everything is energy access, like it is the energy access, it is just bringing a gender lens to energy access, because, to be honest, like my experience has been that, and it is a very technocratic field, there are very few people from social science background itself. And, and the ability to look at it as a as a issue for the household or for the population. And even I wouldn't even say household, because that's much more singular unit, but even people within the household is fairly lacking in the in this sector per se. And it, it's like, the idea for us here was to bring in that lens in the work, and all the work that we do. So even in the surveys that we've done, which has been more around access. In a previous survey, which was just around capturing access, we wanted to bring in like some elements around inter household decision making. Now, you can't just simply be like, okay, this how this household is using these many refills. Who gets to decide who is paying for the refill? Who orders the refill? Who gets the refill? And how much control do the women even have on something that they use and, you know, benefit out of, and, like, so aspects like this. So a lot of it is very, we do it through a very integrated approach. But like I told you, for, particularly for livelihoods, we've had specific funding to work in a targeted with a very targeted approach. So that has also happened.

**INTERVIEWER** 12:43

And how do you like, Can you describe the differential access that you see like, which makes you focus on gender? Can you describe what you actually see as differential access.. within the energy... Question, energy access question?

**RESPONDENT** 12:58

So I'll try to split this between cooking energy, electricity, and also energy for livelihood.

**INTERVIEWER** 13:05

Also, policies and all if you would like to, since you're worked with policy, and you're trying to get in a lens, which is obviously because there is a gap, right, and you can explain all that.

**RESPONDENT** 13:15

Sure. I'll try to integrate the policy lens in that. With cooking energy, I think, like, even if you look at the XXXX, I think XXXXdoes an assessment of how much money is there in the sector to achieve SDG7 targets today, there's so much happening in the electricity domain. But there's very, very limited investment when it comes to the clean cooking domain, globally speaking. And a lot of that factor comes from - Who is this? Who is the clean cook energy benefiting? It is not the household's priority. Like you, you can't go in the poorest household and tell them that by a 900 rupee cylinder because it will be great for your for the women and children's health, the health impact, which you can't even see outright. Okay. And that, like that is that's a very big, like, out there problem. But then there are also a lot of other things. Household members don't want to eat food, which is cooked out of, you know, LPG, there are taste aspects. There are aspects of what would we do with all this firewood that we have free of cost, or the dung cake that we have. So it just cooking energy as an issue gets very sidelined, just because it is based on women's free time and labor. So you are banking upon that to happen.... without any investment. And even though government has I mean, definitely Government of India has made huge strides with Ujjwala as a program to give that connection but at the policy level, there have been a lot of challenges with this. Like, you're providing... you are saying it's free of cost connection, but it's actually a subsidized credit link connection, which means that the household has to buy the cylinder at, at the market price for the first few cylinders. That's when you're trying to change their behavior, which is why a lot of like recommendations that we've said is right at least give them subsidized cylinder or free cylinders for the first few months so that they get used to it, because you are thrusting a completely new technology to a household. Also aspect like transferring subsidy to the account of the women. Now, that's a good step in terms of the policy design. But does it really get implemented the way that the government is envisioning it to be? So what insight we've got is that, first is, women don't even know that it's getting credited to their account. So they don't know that that 900 that you paid is actually the effective cost is 600. Because you're not really that tech savvy, you're not checking your messages of your bank account. Again, that upfront refill cost, you did that XXXX to remove that diversion, which is great that was needed, and I think one of the recommendations coming from the civil society for quite some time. But then that that again, has a very gendered implication, because now now cooking gas is a is a expenditure that women have to be like, Okay, this is my household budget, I have to put in this money now, putting in every other month becomes a huge upfront cost on the refill for the women. And then this is a very major challenge that we see in terms of affordability, and also availability, like who, again, who gets to go and get the cylinder, not all areas actually have home delivery. And, in fact, in our recent survey, we found like more than 40% people report that they have to undergo loss of one day's wage, to go and procure that cylinder that is not a cost that the government is accounting for. And for something that you can go and get very easily either free of cost, or very minimal costs. And there are aspects of definitely the aspect of cash flows. Right. So that's why I think cooking energy and gender lens. Do you have any follow up questions here before I move on?

**INTERVIEWER** 17:30

No, go ahead... electricity,

**RESPONDENT** 17:33

In electricity, whatever my limited work has been, I have understood that it's it's fairly like I don't know why, but people don't think that women are also using electricity. And I think a lot of it comes from this view of household as a as a unitary, like, like one single unit. But we do see very specific, like at a very policy levels, when XXXX came in, they gave something like, like a connection for one light and one plug point or something like that. It had one light. And there have been researchers in the past which have very clearly highlighted the moment you say one plug point, a one light in policy, only, you're mandating that one, it will either be used outside because of that cultural context that my house should be lit up, or it will be used in places which are... and outside is what it means, like accessed only by males, or maybe children. Or it will be used in areas which I like for many places, it will not be used in in a kitchen. Right. So somewhere like I think in terms of electricity, there is a there is a need for a lot more gender lens. And I think even even from a supply side, I guess USAID has been working quiet for quite some time on that engendering utilities program, which which has had that impact of like, how do you collect bills? Are they actually gender inclusive in that? Are you like, are you sending those female bill collection agents and explaining that to women? So I think the electricity has been fairly that domain, which were women are like, perceived to be very invisible, like their needs are perceived to be very invisible. ...

**INTERVIEWER** 19:26

As a separate need...

**RESPONDENT** 19:28

Exactly. Like it would be separate, quite unfair to assume that the entire household has the same need. Yeah, yeah. That and I think, also in terms of electricity and lighting, we see them in terms of the community space lighting, like, where do you intend to... like which areas do you intend to light? Especially where women have that inability to go out. That gets decided by males. Right? And then like, and there's something even we face, ilike, what corners are being lit? Or what corners are not being lit? These are not like I don't, I do see like a very strong need for that gendered lens to be applied when we're looking at electricity access, not just like towards connection, but also generally usage and what what is it that women prefer, which is why we did this survey, and we're quite excited to like to delve deeper into it yet to get to it. But yeah. In terms of livelihoods, so the way we're looking at it is been that because, like mechanization, I mean, mechanization definitely benefits, both men and women, but it tends to benefit women more because of the time poverty and the drudgery associated and because if you think you're tending to do the dual responsibility, so we're looking at how decentralized renewable energy can be like a solution for you know, businesses. So these are appliances like solar powered sewing machines, or solar powered refrigerators for small shops, or even silk reeling machines, solar dryers... range of things. Although, again, while there is like a huge scope of mechanization happening in women... and, and not just existing women micro entrepreneurs, but also the ones who want to start their new businesses .... while there is this huge scope of mechanization happening, but then the cost of mechanization specially when you talk about RE powered mechanization it becomes higher, and, and the moment it becomes higher, it's obviously like the all the problems sort of come in,

**INTERVIEWER** 22:08

Even to adopt...

**RESPONDENT** 22:09

Exactly. Like financing and although general access to finance challenges, when it comes to asset acquisition to business, remain here as well. But then, there is a definite added thing of that this is not a technology, which is known. So who's gonna, like lend for it? Because even bankers are quite skeptical. So when we're looking at it from a policy lens, like so, now that MNRE specificly, is stepping in into this domain. So we've tried to look at it like how do you make it more affordable or easier for women? Do you do a lot more women, like probably create like these champions in communities who are already using it so that acts as a demonstrations. Or generally like have like these companies hiring... either training their staff in a more gender inclusive way, or even hiring more women to be able to sell better to women customers, or address women customers needs better. Because even aspects like... and we've seen this in different things. So one is product design. Are you designing is gender friendly, does it need to do to climb up and do something? Or is it intuitive enough for anyone to be able to use it. We are also seeing that whether companies themselves are offering some kind of finance, like in terms of the product financing, that helps. Also companies cannot just deploy their product and go away. Doesn't work like that you have to get engaged with the community. And some of these companies have done that they've gone, like much in depth about, you know, talking to the men or looking at men as champions for these women. Yeah, I think all those aspects are coming in because energy for livelihood, is still very up and coming. We do see that this can become a little more gender inclusive from the very beginning than later. At the very policy level. I'd like to make a way more like an overarching point. In terms of like the policies that we have seen, when it comes to any form of technology upgradation, or mechanizations for women's livelihoods, You don't see policies at that intersection. So either there are policies, which are ...when it's energy policy, they'll be for women for cooking energy, even if they will say something about like even in this policy that MNRE initially had, the only place where women were being mentioned was biomass cookstoves. I think that's like the default thinking that happens and then it stops there. So you don't have policies at the intersection of energy and gender unless it's cooking energy. You don't have you have policies on at the intersection of gender and livelihoods because the government is doing a lot in women's livelihoods, broadly speaking, even through the NRLM, and everything, but towards livelihood policies don't have a very strong energy lens. They are yet to reach that place where they're looking at energy as or clean energy in technology upgradation. So that intersection doesn't happen. If you want women to use clean energies in their livelihood, it's difficult to find a policy that does that. If you look at the Kusum scheme, which is the solar pump scheme that the government had, I mean, that is yet to be actually implemented. But even the NABARD scheme that they were doing, it has a very simple thing of anyone who owns, any farmer who owns the land can get it. The moment you put a clause like that it is going, it is not going to reach to the women farmers. So, I mean, definitely there are flaws in design. And then wherever there is, then there are no flaws in design, and I mean, not no flaws, but wherever they've tried to be inclusive in design, it doesn't really get implemented the same way. Um, I think the only other point I'd like to add is, like, I remember once we did like this analysis of policies on whether any of them were gender transformational, they weren't. And I think that's very true for cooking, clean cooking energy, specifically, like this whole Ujjwala program being showing just women cooking or, or this narrative that I mean, I'm sorry, I'm, like, more passionate about this. But this, this whole narrative around like, Okay, this will free up... two things like this will free up women's time, and that they can use for livelihood. But why? I mean, they don't need to earn that 900 rupees for the household to not have household air pollution, or for them to have a have a convenient cooking.

**INTERVIEWER** 27:10

It should be a priority for the household.

**RESPONDENT** 27:12

Exactly, exactly. They don't need to like, pay for it.

**INTERVIEWER** 27:15

They are already doing the labor of cooking.

**RESPONDENT** 27:17

Yes. And second being like, Okay, if it makes cooking easier, too. But if it makes cooking easier, why are you not showing men in your billboards across the country? Why are you not putting both of them together? And because I'm saying this because P&G's at level one, I witnessed moments of pipe natural gas in Delhi, which did show both men and women cookie, although again, the narrative was slightly flawed at the moment, it's convenient, your husband can also cook. But unfortunately, that's true. And a lot of households have told us that having the LPG has helped, like, oh, the man can now probably make Chai more easily because they don't have to light the stove and all that. But at least I think the government and that advertisement and approach could be a little more gender transformation. This was a good opportunity for them to do it. Because they were anyway spending so much on that campaign. So yeah.

**Part 2**

**INTERVIEWER** 28:21

So what does equitable energy access mean to you?

**RESPONDENT** 28:25

Um, so I think I would look at it from two perspectives. One is whether energy access is equitable within the household, to both men and women, and anyone else in the household, but probably most men in terms of how we looked at it, and also across communities. So, for example, there is a very obvious caste difference when you look at access to clean cooking energy. And definitely it comes from the fact that who, because affordability becomes such an important aspect of being able to use it sustainably. And we've seen that scheduled castes and scheduled tribes have found it much more difficult to use it. Now, I think with Ujjwala connection part gap has reduced like a lot more people have connections across caste groups. But the usability is still very like that, that variation is very high. Especially in sheduled tribes. They're obviously the aspect that comes into picture is the free of cost and easier availability of firewood.

**INTERVIEWER** 29:42

Access, easy access to firewood.

**RESPONDENT** 29:43

Yeah, so the more it's easy, but but they're also so I mean, I remember the survey... access survey that we did in XXXX. That was in some XXXX states ...XXX energy poor states, mostly North India. West Bengal despite having tribal population, the tribal population, so ... Weset Bengal and Chhatisgarh... sorry West Bengal and XXXX we were comparing. And despite having sort of similar levels of tribal population in our sample, we saw that West Bengal was still doing much better. So maybe it is also about how much other households like either able to afford or how that behavior change is happening there, like maybe, if you're using it for a longer period of time, so you end up using it more often. So definitely caste level, socio economic defferences coming in. at a community level, there is a definite rural and urban divide. But recently, we did a study specifically focused on urban slums in clean cooking. Now, this is in something that has been explored, like I think, last report, which happened on something like this study, which is there, and something like this was by TERI, in 2008. And now, obviously, LPG has changed a lot for India, in the past 10 years, I mean, at least in the past six years only, it's been a lot. So we, I mean, despite urban slums being urban, they have, like only 65% of them get home delivery, more than half of them, like not more than half sorry, 45% of them are still using solid fuels, be it as a primary fuel or as a secondary fuel. And a lot of times be relatively better off, like they are using eight and nine cylinders in a year. Definitely affordability is not an issue to them. But they're still using solid fuels. Now there are there are different aspects associated to it, like, what are you using it for, if let's say if you end up using it for chapatis and chapatis is part of every meal for you, you will cook it on solid fuels, people don't want to make that shift. And again, that shift may not be completely a woman's decision in the household. So diet varies. We also see that, and that's why we've highlighted this issue of slum versus non slum in urban, like you can't look at urban as a homogeneous thing, because, again, this whole conversation about around air pollution in urban areas, if urban slums are still using solid fuels to kind of double exposure that they're going through. And generally just looking at clean cooking, I think as a public health issue would be more helpful. Because I mean, if my neighbor is cooking on solid fuels, and I'm not, doesn't help, especially in slum areas where it's fairly congested. So yeah, I think so broadly, within the household, having that equity, and also across these different communities, how you're looking at energy access to at least the basic forms of energy, at least like everyone having that exclusive use of clean cooking energy, or having that access to basic electricity. And yeah... i think that... so if I ask you, what does gender equity mean, in energy access? would your answer be the same? gender equity mean, in energy access?

**INTERVIEWER** 33:24

I asked you about equitable energy access, so I'm asking, if I asked you to apply the gender lens, is your answer the same? Or do you have other things which you think?

**RESPONDENT** 33:39

I think, um, yeah, I mean, obviously, I think if I'm gonna say talk about it from within the household, it'll be broadly similar, like, in terms of when it comes to any energy source, do women and men of the household have similar levels, I think, or all where women or even looking at equity that way... we like, I mean, if, if clean cooking is something that women are primarily taking care of, then them having that enough access to it. But at a community level, I think it will be different. I mean, probably applying a more intersectional lens there. Like, because, for example, women in rural areas probably have to travel a lot further than women in urban areas for collecting the same firewood or something a very simple caste lens there would be that, I mean, upper caste women even though they they are not using...they're using chullah they're probably not doing a lot of the grunt work themselves. So I mean, bringing that level of gender equity... i think?

**INTERVIEWER** 35:00

So also water lifting, right? Because Yeah, caste will have a great intersectionality with water lifting because the lower down the caste ladder you go, they move to outer and outer periphery of the village, and the water collection point might be at the center. So the travel distance becomes bigger...

**RESPONDENT** 35:21

Yeah, we talk a lot about women's time and labor, but women's time and labor cost is very different from where you are.... It depends on where you stand in the social location, right?.... So I mean, when we talk about women's free time, like women's labor of collecting the firewood or making that dung cake, no upper caste woman's sits and makes that dung cake. So I mean, and maybe it may be that the reason why they're not able to move further there have not really done... i'm not saying this through research...but more from experience that. I mean, why would you want to spend on something where you can pay someone, the menial of the menial wage, and get it done? Why would you want to pay for something? Which is so much more expensive?

**INTERVIEWER** 36:15

So within the work that you do, how does your organization or you... like ascertain things like the demand for energy or consumer needs? What's the process of the data collection that you do?

**RESPONDENT** 36:31

Okay. Okay. So that varies on studies to study. By, we do a lot of primary surveys, usually with the household. And I think since since my colleague and I came in, we became very specific about doing cooking, and at least cooking energy services with the primary cook, you can be asking household head about cooking energy, it doesn't make sense. But yeah, we do a lot of primary surveys. And then we do a lot of stakeholder consultation with some researchers. And we also have a tiny advisory group for research, like specific research pieces. So that helps us get perspectives from experts across the field. We've also done like some qualitative studies, to sort of take to the recent one that we are doing with women's enterprises using clean energy in their business that was completely qualitative. So we've done like, a very open qualitative research interviews, I mean, this it would have been much better, but then COVID happened to be had to do it online, through calls. But that has been, at least the work that I have done has been very, a lot more primary research, through either quant or call data, and bring it all together and either publishing reports, or then that becoming ... we use a lot of our research output, to then move to policy recommendations or take it to the government with what they can do. So like, I mean, even like, when... I think now that XXXX has left, but even Ujjwala 2.0 discussions, we have been part of those discussions very closely, given our inputs, and each of those, so a lot of those inputs that comes from our research. So the output then paves into policy recommendations with distributors, or OMCs, or the government.

**INTERVIEWER** 38:39

And within this data collection, what are the criteria you use to map diversity? I mean, some of them you mentioned, I think gender being one. And also caste, if you just put like, tell me, if there are others?

**RESPONDENT** 38:53

So to be honest, I don't think caste is used as a metric here to ensure that there's definite representation. In quantitative surveys, it's more like population based proportional sampling that we use. I mean, obviously, when you do that, you do end up getting similar caste composition to what you're looking at the broader state level population. But that's not like a active approach that's taken to be inclusive, in that sense. And, and that does have its impact, because we've seen like in some of the states, like you're very skewed population representation in terms of the caste composition. And for gender, I think we've, we've pushed for it a lot more and, and to be honest, it's, it's readily acceptable.

**INTERVIEWER** 39:46

But is this gender only as men, women, or are you also looking at the non binary genders?

**RESPONDENT** 39:52

No, it's only men and women.

**INTERVIEWER** 39:54

So one of the things I'm seeing that the research is still not extended to understanding the differetiated needs for non binary people.

**RESPONDENT** 40:04

Yeah, yeah. And I, I don't think i don't think i i don't think i've seen any research on that either. And I remember one of our colleagues pointing this out to us and we were talking about it. But again, like, energy actually just

**INTERVIEWER** 40:23

give me one sec Sorry yeah?. So sorry about that. Yeah, XXXX, go on.... Yeah. You were telling about the lack of research in non binary needs?

**RESPONDENT** 40:52

Yeah. So I mean, no one....

**INTERVIEWER** 40:55

That's something I'm really struggling with, because I want to inform this research, also with the differentiated needs coming from non binary groups. And I'm finding that across as I'm speaking to lots of people from policy, working on policy research, practical programming, program implementation, even when we have started discussing women's differentiated needs, we have not at all discussed, not even started discussing....

**RESPONDENT** 41:25

Not at all. No, we have not. And I mean, if you find something, please share it with me because I have not. In fact, that's what I was gonna say that even caste as, like, as something to be looked at very, to be to look at something from a very caste lens is, is not very common in the energy access space. And I'm sure you must be seeing that. We will do like, let's say, okay, we can say that caste base like broader SC, ST, OBC, *(hindi) what is in that*...., that information you will get, maybe, but not so much in depth, like, you know, understanding that caste like...

**INTERVIEWER** 42:11

will not get for example, in a village. If you have 30% LPG penetration, you would not really still be capturing that 30% LPG penetration is probably all in upper caste homes...

**RESPONDENT** 42:24

Exactly. And, yeah, it will not be that disaggregated It will also not be like, see, I think, for me, like, personally, what I'm believed also a lot of times is that we can't look at general as general, you need to break it into... if nothing else, Brahmins and Forward castes. But like I don't a research has gone beyond the very basic of General SC/ST and that also, we found it very difficult. We've had... Like, if every time we said that we want to do a very targeted caste lens, It's not very well taken. And we've struggled with it.

**INTERVIEWER** 43:05

People feel hesitant about looking at it through caste lens...

**RESPONDENT** 43:08

Yes, I think it's the general. Like, it's fairly common. I've seen in the Energy and Environment space, for some reason, unless you're going really in that environmental justice space. This side of things, like I mentioned in the very beginning, it's very technocratic. So a lot more caste blindness. So for instance, I remember writing a concept note on how large scale solar parks are impacting communities. Now if I'm saying community I really... if... if I have to assess that I want to assess the impact on tribal communities who are actually getting impacted by it. I don't want to see like because here the conversation stops at who got the job like... sorry, whether there were jobs... like did local people get jobs in the solar parks? If they did... great.... solar parks are creating jobs. You're not going into who got that job? What kind of job did what person get? Who actually lost their land... not on paper lost their land but who actually lost their land... so...

**INTERVIEWER** 43:43

I think that landless conversation comes in over there also, because tribals will be users of the land but they might not have land deeds and ownership documents to say that they are the ones owning the lands, right?

**RESPONDENT** 44:33

Yes. And because Solar Park, if you look at the law... policies and laws there, it's like they are technically on deserted lands. So and, and they don't need to go through any whatever on paper environmental impacts and social impact assessment, right. Um, so I do definitely see that lacking in the research here. I mean, I haven't actually read global research, if that focuses on the race, and energy access as much but in India, I think the caste lens is definitely required. And I mean, it's required in anything that you're looking at. But and it is. Like, it's not something that you find very easily. We, in fact, we wrote a paper.... I mean, outside, like, on just understanding at a very basic level discuss this caste, class and gender dial, like how that determines access to LPG. I mean, I can share that link to you, at least that looks at a very broader level numbers, at the state level, but disaggregated by caste, because that's also very difficult to find at this point. So surely, we should move on to fast because you are you have another appointment...

**RESPONDENT** 45:54

I actually don't have that I moved that.

**INTERVIEWER** 45:57

Okay, that's great. That's great, because I still have a bit to go through. So if you're looking at energy access at household level and community level, how do you see the inequity in terms of gender?

**RESPONDENT** 46:15

Did I not already answer this? Like?

**INTERVIEWER** 46:18

Partly? Yes, you did, partly, but I mean, Yes, you did. So I would just like to expand it, then, in terms of when we talk about energy usage within households, and energy usage within communities... how do you see these differentiated needs? I mean, what do you observe as differentiated needs?

**RESPONDENT** 46:42

Okay, um, I mean, like, for instance, very simply where are you putting the bulb? What appliances are you buying? Like, are you buying a television set over cookstove or a washing machine or a refrigerator? I think appliances level also there is very much difference between like households buying things which help the household as a whole rather than women particularly... either either be whole or the men. It will not it like that priority level goes down.

**INTERVIEWER** 47:26

But my question is a step before this. My question is, see, if I look at it, truly through a gender neutral lens, a cookstove is not actually essentially, should be thought of as benefiting only the woman. Right. But it is happening because there is a certain task allotment, which is. So I'm asking more in terms of that, that when you look at a household, or when you look at the community, how do you see men and women using energy differently? In what ways do you see men and women using energy differently?

**RESPONDENT** 48:06

I think one of them would be something like at what time do women... do men and women are using energy? Like what is that time of the day? So I think in the gender survey, we saw this that the men have a preference for having stable electricity between 12 to six. Again, maybe the sample bias being towards women who stay or who are homemakers, rather than stepping out for work, as opposed to men having that, thatpreference for having electric stable electricity between six to nine, as opposed to that daytime. So also like the hours in which they want the electricity. And I think I guess one was that... And again, like, maybe I'm going a little step in but also what appliances are they using... because of what the tasks are like? Definitely that. And....

**INTERVIEWER** 49:13

so what do you find about the appliances?

**RESPONDENT** 49:18

I think they How does the household prioritize which appliance is distinct.

**INTERVIEWER** 49:25

What is the priority that you see?

**RESPONDENT** 49:27

We see, I mean, from from the data that we have seen that like for instance, television sets is something that people rank much higher than like cooking energy. Similarly, electricity is higher than cooking energy. And, but for instance, if you're comparing between.... if you ask them options between like kerosene and electricity or solar lanterns, they will definitely pick up like the better appliance like electricity or solar lantern. But with ... like if you if you put like a biomass cook stove or like, generally like a chullah versus LPG, not everyone will press put that preferance, ranking preference as high ... Yes. And and we also did like a ranking preferances to like, of all the appliances in the household like that they use and where does it like..., at what level does it land? And then also the see similar thing, and it varies. What is interesting is that it does vary by gender. Definitely. And like women do rank LPG higher than men, but it's not as high as you think it could be. They would still, even women are saying that they would prefer something like a television set or a mobile phone. So sometimes, as people working in the energy sector, I do feel like do we give this more importance than the household is giving this... like, maybe we fail to see where this lands in that household priority list ... Like, I mean, for them, maybe it's not like that key aspect... maybe energy is not that key that as we think it is, or we want it to be for them.

**INTERVIEWER** 50:22

For LPG? Can you also clarify who are the people you're talking to? What demography, what location etc, generally for me to understand, like income bracket or profession...

**RESPONDENT** 51:44

Sure, sure I think, so, this is like a like from rural and urban slums of Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Jharkhand and Chhatisgarh. I am not very sure. Also, because income brackets don't really reveal like, we don't really use the income data, because it's self reported income. And so by wouldn't be like, on an average, I think the median income was more like five - 6000 rupees. But then again, this is self reported, we try and use like asset indicators like create an asset index to define like, but then it becomes more relative to the sample then to give you a picture of who exactly these people are, in an overall India level or state level.

**INTERVIEWER** 52:39

That's what about like the professional background, like what work would they be doing?

**RESPONDENT** 52:43

So... Yeah, sure, I think urban slums, mostly casual labor, or self employed like drivers, electrician, gig workers probably. In rural a mix of either farm, it's like own farming, or farming and non farm labour. Yeah.

**INTERVIEWER** 53:10

So amongst women do you see, I mean, you've talked about how it differs between communities and ethnic groups, right. And caste groups. What about age groups? Do you see any difference in energy access between age groups of women?

**RESPONDENT** 53:26

Um, yeah, I think so. I mean, it's not so much. I mean, it's a factor of where how much decision making power the woman has within the household. So I think that's how it affects energy access. So I mean, by age, like, depends on how so I remember once we were doing this survey interview, and we wanted to talk to the primary cook. And we were talking to trying to talk to the primary cook who was a very young female, just married for a couple of years. But we were not able to get her perspective, because the mother in law was constantly talking over her. So now, access to clean cooking energy will eventually benefit the younger at this point, right? But the mother in law was constantly like no, but it is okay. We've also done this, they like because that's, I think the age comes into... plays an important role because behavioral change is much easier with younger folks than with older folk, right. And, and if like there is an older female in the house, it is far more difficult for the younger female to navigate transition or you know, get that buy in. One interesting aspect and this is not this is coming from literature. I remember reading about it was like women who have sons, they have.. I mean, they do have better like ...agency within the household. And that does impact their ability to use clean cooking as well. So, because they have better agency in the household...

**INTERVIEWER** 55:15

Or because the boy child also needing better air quality...

**RESPONDENT** 55:20

Exactly, and or, you know, like, yeah, exactly you and your your status in the house becomes better. So whatever you say happens. And there is a paper on this that how like, like having a male child improve women's likelihood to use clean energy.

**INTERVIEWER** 55:42

Really, really interesting. So actually, my next question was about decision making. How do you see equality in decision making between men and women? And I'm asking both at household scale which is one level but also at you know, larger scales like community, district panchayats, or even bigger scales than that.

**RESPONDENT** 56:07

What do you mean by how do I see like....,

**INTERVIEWER** 56:10

I mean, as in do many women participate equally in decision making about energy access.

**RESPONDENT** 56:18

So, I mean, not really, when it comes to anything, which has a monetized impact. So when you look at firewood and dung cake... which which either does not have a monetary association, or has very, very little monetary association, there women do like women report to be like, either they are collecting, they are doing it themselves. So they don't need like families buy in or anything. But we have very clear data, which says that decision that the when to order the refill, who orders the refill, and who gets to refill, all three remain with the male member. And this is like, almost half of the population, even in urban slums we saw it was like 50% male members are taking decisions. And there is definitely state level variation. I mean, I think I remember, in the previous survey, when the same questions were asked, West Bengal did much better than others. And, and that is also caste level variation. And ... like, you can see ST women taking more decisions than general caste women and even SC women taking more decision, which is like your general theory of how caste and gender operate. And that's right here in energy access domains as well. In terms of, if you're, if you're talking about broadly, like in a community space. Like, then again, that depends on what communities are we talking about? So I would just comment on it from a very, so I mean, generally how we look, one of the research that we did was women as employees in the energy sector, like I'm talking about, like these companies, not generally like more like rooftop solar companies. And and the premise was that because oil and gas as an industry was fairly male dominated with all that going into, like mines and everything. So now that we are moving towards like, like, cleaner sources of energy, which which require more skilled jobs, more professional jobs, right?... So there is a scope for it to be a lot more inclusive. And if you see globally, around 30, more than 30% of employees in the energy sector, companies, are women, which is a huge jumps from what it was in the oil and gas industry. So we did this for rooftop solar sector in India, because rooftop solar is one of the sectors which is which is very labor intensive. And it is also one of those sectors where you, you it's more skilled than others. So we wanted to check that for like, in that particular because then you're talking about more privileged, educated women today. And and STEM in India is not that, like, there are the many engineers, and it's very much like I think over 30% but that doesn't get translated. So we saw it was only 11% were women. And when you break it down into what these women are doing, they're mainly in HR, finance, or maybe business development, some of them? very few in engineering and actually the core part of the jobs of like, you know, I think it's called EPC or even what they do in terms of maintenance and operations and maintenance. There are no women. And these are startups. And these are very progressive startups. And yet, they don't have policies. And then they're not that level of inclusive that you would think that these companies would be. So because a lot of that conversation around renewable energy is around how RE will create a lot of jobs, like how this clean energy access will be great for jobs today. So where are we bringing in women there? And we see a very huge gap. And despite this being a lot more better than the conventional energy sector, it's not happening at the same way that we would expect it to.

**INTERVIEWER** 1:00:51

Interesting, it's very, very interesting.

**Part 3**

So what I want you to understand this, that, within your work, if you could give me some examples of like, how you focus on the gender equity factor within your work, you know, either as like the research work that you're doing, or like internal processes that you have, or in the project design priorities, to give me some examples for us to understand.

**RESPONDENT** 1:01:24

Sure, um, let me give you the example of, I think, the XXXX program. Because that is a good example of how a program that's more gender lens... that had gender lens... I think one of the, one of the things that definitely works to get people to buy in is funding. If you have a donor coming in and saying that we will find only the gender aspect. It doesn't leave anyone with any arguments then. Because the arguments are very, very basic and be like, but... but why do we need to have a woman focus, I mean, it will benefit by default, everyone like, We are not saying we don't want to discriminate. So it is really at that level. So having that donor push was was the biggest boost for us. So this is a program which has been designed, like I said, to support like these enterprises. And in addition, there is a huge component of sectoral engagement with this, associated in the program where, because XXXXis not yet as accepted. So we are engaging with donors, financiers, Debt, equity, policymakers, different stakeholders across and basically using the data from this program to get more buy in. So the way in this program we've tried to design our gender lens has been to, to plug it in at every aspect of the program. and integrate it across each of these aspects. So across integrated for financial assistance, technical assistance, and programmatic, sectoral engagement. So if we have a funders committee, we have ensured that we have gender lens investors sitting there.

**INTERVIEWER** 1:03:22

What is the checklist? I mean, like how do you design the check as to,

**RESPONDENT** 1:03:31

as to whether?...complete it?

**INTERVIEWER** 1:03:33

I mean, as to whether you the you are applying the gender lens correctly, I mean, that you're getting a gendered feedback.

**RESPONDENT** 1:03:42

So we've tried to ensure that, like, wherever there are committees or groups, which are external, or where you're bringing that, so you, we we try to ensure that there are experts from like, for instance, if they're investors, then there are gender lens investors as part of it. If it's an advisory group, we have people who have been working with women for the longest period in their occupation, whatever they're doing, so they are gender experts sitting there and bringing that perspective, the program has a specific gender team, whose whole job is to integrate and bring this lens and question and every team meeting or review every document from that very gender lens. So that's how we are ensuring integration. In addition, because we have very targeted support for gender targeted funding, so we're able to give these enterprise.. so we've done like, need gendered needs assessments with these enterprises, across their business functions. And we're able to get we have given them some strategies that they should adopt which make up which have a business case for them. So it's very important to get their buy in, because otherwise they don't want you don't want to look you don't want them to look at it as like, Okay *(hindi) there is money*.... So let's do it for social cause. Don't want to place it like that. Want to make it more sustainable. So now we're doing like very specific pilots with them, which is, which is going to improve the women customer base, or in some cases, their women employees. So and then evaluating those data to then that becomes like a sectoral case study and all that. But yeah, so in this program, the way we designed it was to have this lens integrated across each aspect that is happening, and the dedicated team, which is constantly bringing this, whose role is to bring that lens. You know, like, particularly my role in the program team is nothing else, like I don't do anything else, I do only the gender inclusion aspect. So I'm able to focus on it very specifically. And then obviously, the targeted support, so that it's very, very well like, then people should not so the enterprise's feeling that okay, there's money for it, like, you know, we're not asking you to do it, just like that, or adjust it somewhere. So yeah, the donor support has really been the key factor, and having a very dedicated team. And this approach of integrated and targeted because if you do it just like a targeted approach, then the broader program remains very gender blind, and your team team remains very gender blind. And then you just have like these two people doing it, and then becomes like a sidekick. So you don't want to make it a sidekick. But you also don't want it to be lost, you want to make it very much the center. And whatever it is, like the program has only one focus that is gender inclusion. So that the funding comes in with certain audit processes to check the gendering of your program. Right. It's, it's it, are you guys looking at what I meant is, is your results analysis also, based on gender, then?

**INTERVIEWER** 1:07:07

Yes, yes. We have like KPIs for that. So like, at the end of the program, I mean, there are middle levels checks, based on milestones, but at the end of the program, like the number of jobs that will be created. So I mean...., How many of them are women? At what levels are the women...are they only at the lower levels?

**RESPONDENT** 1:07:28

Yeah, those are the metrics that we're trying to evaluate.

**INTERVIEWER** 1:07:32

And that's something which is linked with the funding program milestones. They also are asking you to do it like that. Right. So it becomes an automatic delivery you have to do...

**RESPONDENT** 1:07:43

Yeah, and then everyone has to take it as seriously. Right? Because, and this is like the one of the biggest chunk of program funding, so you can't really ignore it.

**INTERVIEWER** 1:07:54

Yeah. if it is connected to the money, then everybody has answer this...

**RESPONDENT** 1:07:58

Yeah. Yeah....

**INTERVIEWER** 1:08:00

Because this is something which is always coming up, like, you know, how do international finance programs.... How do they actually make gender inclusion a deliverable as a part of their funding strategies, because if they do that, then the programs on ground are bound to respond to that. But it is not also enough to just say, in on your policy, paper, I mean, how it has to be results based as in the funding strategies have to involve checking the results of the program as a gender inclusion delivery, you know, so....

**RESPONDENT** 1:08:36

yeah, we have like gender KPIs at all levels. So not just like, who how many consumers? So like, for instance, we didn't choose these companies based on women founders, that we were very clear of, we were evaluating them on what kind of impact they can have on women, customers. So it may be a male owned company, but if the product or the business model that they have, is impacting more women customers, that's what we're looking at. So we designed that very, at each stage, and with the donors, we have, like, specific percentage of KPIs, but like what should be like for every aspect, how it is, like it's gender disaggregated, per se, and set targets for each of them.

**INTERVIEWER** 1:09:23

That's fantastic. So outside your work, do you think energy access policies in your sector needs to be more gender sensitive?

**RESPONDENT** 1:09:36

Definitely!

**INTERVIEWER** 1:09:37

And how, how should they be gender sensitive?

**RESPONDENT** 1:09:41

I think the very first step would be gender disaggregated data? I think that's overall lacking and be the only need that as a sector have to have like data to then make that decision. Like, like I told you, I think even cooking energy data that people have been collected from household heads. You don't want cooking energy specific data from household heads. You need it from the person who's using it, who is primarily going to be women... Or generally like, how are women using electricity? We have no idea... we have no idea what women preferred... what do they need? What are their challenges? So I think very basic steps would be that. Second would be to, I think, I'm a huge advocate of this integrated and targeted approach. In policies, I think there is a need to not just sideline something for women in one paragraph in one section, like oh, *(hindi) like in the end*, like there's like, a couple of lines there. I think there's a need to look at it in a very integrated manner, where you're very, you're very consciously looking at it in a way that okay, this will have differentiated impact, again, which will probably feed in from your gender disaggregated data, and you're integrating that across your policy, you're being cognizant of it. The third thing that I would say is gender budgeting in the energy sector. So if you're looking like despite India's, I think it was 15 years this year, then that the last they've launched gender budgeting? Most of it is with either Rural Development, Police. I think Ujjwala forms are a huge part of it, which is why XXXX has reported under part A of gender budgeting. But this ministry of power and XXXX, do not report anything under gender budgeting, despite it being mandated. So I think energy ministries need to step up in that sense to to make gender budgeting very much part of their policy structure. And the fourth thing would be that, I think, in generally, policymakers and stakeholders in the sector need some I don't know how how, I mean, I know I'm saying very unrealistic thing, but they do need some kind of capacity building around the basic gender awareness, and sensitization and if not everyone else, atleast the policymakers and implementation at the Ministry level, they need to go through this. And it can't be the job of just that social specialist that you've got in your ministry, who is constantly just bringing in because then that one person's job becomes very difficult. Unless other people are on board. And you can't do as the one way,

**INTERVIEWER** 1:12:53

because under the I mean, gender is one subject, which kind of, you know, tunes out most people who haven't really...

**RESPONDENT** 1:13:01

Yeah.

**INTERVIEWER** 1:13:03

The moment you say gender ...

**RESPONDENT** 1:13:05

you know, and then it becomes like *(hindi) its women related*...and then they just shut off. So it's a difficult process, unless someone is very much like....

**INTERVIEWER** 1:13:16

And you become the inconvenient voice then... within the program.

**RESPONDENT** 1:13:21

I mean, we have felt that, like some officials are very keen on it, and that they keen on it, it's very difficult for, for, like, for them to like for you to get them to hear you. Yeah. So Otherwise, they won't hear you they will be like *(hindi) yes*..., okay. Okay. But then there are some who are very keen on it, they will be very upfront.. They'll do what you're telling them, they'll take it very well. And they will have their own ideas. So I mean, it would be good if everyone will, like had that basic level of capacity building and gender awareness training. Again, I don't know how that would have been.

**INTERVIEWER** 1:13:58

it should happen in schools?

**RESPONDENT** 1:13:59

But yeah, but I mean, like the way I think USAID is working on that engendering utilities program, and I think FTDO is doing a power sector reforms program through KPMG or someone they are trying to work on it because and again, like I think these these large donors, do mandated and once is mandated, it has some impact, at least it won't have a transformational impact, but incremental, definitely...

**INTERVIEWER** 1:14:31

So what related social policies do you feel impact energy equity?

**RESPONDENT** 1:14:38

Yeah, I like this topic a lot. So we did this research on XXXX. A year ago, I think a year and a half ago, with XXXX which is when we learnt a lot about this. So if you look at current social assistance scheme we think that I mean energy is not really integrated across any of these, and there is a scope to do it very well. I'll give you a couple of examples like, for instance, maternal health. Now that have been pilots across, I think in somewhere in Maharashtra, I think one of these international universities only did it. How like, there is an... especially with pregnant women and women with newborn babies, how like that impact of burning solid fuel is so much greater. And if you give them like that support of relief during that period, it is fairly beneficial because that fuel the fumes from solid fuels has been proved to cause low birth weight. So something like you integrating that aspect with the Janani Surakhsa Yojana. I'm not saying all these schemes are happening by perfectly, but even in the scheme design bringing in this element, or even though I think the Mathru Vandana Yojna, particularly. So I think there is a definite way to link energy access to maternal health, Child Health scheme. To a large extent. The second example would be something like, so if you look at the Pradhan Mantri Awas Yojana, it hasn't..... It doesnt have a thing about slab. It has a thing about having a mandated kitchen. Like you should have like a kitchen area. But let's say if the policy very clearly says that you should have a kitchen slab as well, or every person who is the beneficiary of awaz Yojana, definitely gets an LPG connection, you link the Ujjwala benefiot there. Okay, so at least you ensure that the moment they are getting a house they have an LPG cylinder, with the cookstove, and everything. So I think those are small, incremental changes that the government can do in terms of integrating the benefits of other social assistance systems. We also talked about how XXXX. Because I mean, with LPG subsidies, there's a lot of conversation in the sector about how it's going to the rich more than the poor. Like a lot of these people don't really need LPG subsidy, although I think that whole conversation right now is not... is futile because they've just completely removed it at this point. But But something like linking it across some of these themes like the the housing theme, where you're very much making clean cooking part of the house, or maternal health scheme would be beneficial, I think in the long run. So alose make it easier for people to use it.

**INTERVIEWER** 1:18:08

You should connect up with XXXX. She's the one who's done his research on birth weight. And...

**RESPONDENT** 1:18:14

yes, yes.

**INTERVIEWER** 1:18:16

I interviewed her XXXX.

**RESPONDENT** 1:18:19

I think people who work in the air pollution team do workXXXX

**INTERVIEWER** 1:18:46

She is kind of one of the massive resource in the field. Yeah. So then if we look at a situation of no policy and financial constraints for a moment, what in your view would be the best practice for achieving gender equity? Well, I've never thought of that question, per se. Yeah, I mean, now you've caught me off guard. I'm, I just feel like I am going to say something like I'm going to miss out something ...something big. I think if there are no policy constraints, I'm guessing. Yeah, I know financial constraints. I think everyone would have at least, at least the very basic levels of access to electricity, heating, cooling and clean cooking. And having access to energy for whatever livelihood that they're taking. And by everyone, I would mean, like literally everyone. So what would be the way to achieve that?

**RESPONDENT** 1:20:15

What would be the way to achieve that, like in terms of policies?

**INTERVIEWER** 1:20:23

Model policy, practice, design, program....

**RESPONDENT** 1:20:36

Through the state would be the best way to achieve it. I mean, at least I would personally say that instead of bringing market into the picture, I don't think that it would be as equitable the moment to bring them. So probably through through policies, through generally through support in a way making it. I mean, like, for instance, the way Ujjwala happened, it was a very transformational step that the government did like one day they woke up, and they will, I will give free a free of cost cylinders to everyone. So I think something like that, but, but something that goes in a more sustained manner. So having that lens in the policy as well. I'm not sure if I'm being clear, I'm really very clueless at this point about this question. Maybe, yeah, maybe someday I can think about and get back to you. Because I would actually like to think about this, and I've not...

**INTERVIEWER** 1:21:38

because it's you young people who have to really find the solutions now. So my question, the follow up question, was that that whether what you are envisioning as best practice, how are you working towards that best practice?

**RESPONDENT** 1:21:57

in the energy sector?

**INTERVIEWER** 1:21:59

for gender equity in the energy sector.

**RESPONDENT** 1:22:01

For gender and equity in the energy sector, I think, what I am doing, particularly is gender disaggregated data. And I think that is one thing that I try and bring in at every aspect. And that's really been important to me personally. And I feel like it's a very low investment step to take with a very high return. And it's also... since I am not really that senior, it's hard for me to put in transformational initiatives. And that will have a buy in for from everyone else for whom gender is not the priority. But I think just bringing in that gender disaggregated data, is a fairly important step, which people don't like, start questioning you a lot less, why do we need to do this? So this is, I think, and that, that is something that I take very seriously. And I think that would be like the first step to move in this direction, because we really don't even have any information on how things are going.

**Part 4**

**INTERVIEWER** 1:23:18

So because I mean, your work in the DRE sector, I would ask you about finances for the DRE sector. So you actually are working on a project on the sector where the funding is connected to a gendering of a program. So do you see finance processes, gender sensitive in the DRE sector? Or even not DRE....any renewable energy sector?

**RESPONDENT** 1:23:46

Like, do you mean donors? Or do you mean like... equities?

**INTERVIEWER** 1:23:53

I don't you mean donors, essentially, I mean finance processes? I mean, access to money...

**RESPONDENT** 1:23:58

processes, processes .... okay,

**INTERVIEWER** 1:24:01

I mean, access to money basically...

**RESPONDENT** 1:24:03

No, no, it's not. It's not gender sensitive, not at all...

**INTERVIEWER** 1:24:07

How do you see it's not gender sensitive? What's the gap?

**RESPONDENT** 1:24:12

So, I think it's not that the gap is not specific to DRE. It's the gender differences to access to finance, which just get exasperated in DRE, because DRE is a new thing. So when you're talking to bankers, they don't know what DRE is outside a solar lamp or a solar pump. So until.... unless it's these two devices, none of the financiers are on board, giving money to male or female, but then it becomes further for females because they don't have savings history, credit history, so all the access to finance problems remain as is. Yeah. I think that's broadly it. And also, because you're, you're asking for a much higher finance, because the upfront capital cost is higher in case of DRE. So your margin money would be higher, and your loan amount would be higher. So further, it then causes another level of problem for the financial to lend out that money. The third is the after sales service is a little tricky at this point, since these are still emerging technologies, and they may not have really, very, very well established after sale networks. So what happens is that a lot of them stopped working, or, like, don't work as properly. So even if the financial has taken that bet on, on lending for that equipment, if it will not work properly, it becomes a challenge. Now that that also has a gendered element, because unless you're providing doorstep after sale service of that equipment, women are dependent on someone else to take, either take them there or take the equipment there. Um, so

**INTERVIEWER** 1:26:15

So, this is one big thing I'm seeing as a part of energy access. Women's lack of mobility is a big factor...

**RESPONDENT** 1:26:31

Yeah. which is why I think, like, mobility, and gender is something that has always caught my interest because, like in energy access, you see so much problem is because of mobility. So, yeah, I mean, I was just saying that aspect.

**INTERVIEWER** 00:18

So. So just to go back to the question of finance versus gender sensitive finance processes, because I'm trying to understand like when you're talking about livelihoods, which are renewable energy dependent Livelihoods for women, which are renewable energy dependent. So obviously there is a financial input required at start of the business. And that financial input is not only required from that point, if you have to take a loan, it has to be a reasonably sustainable method of repayment. And it has to be comfortable for that woman to sustain that livelihood in a way that she can continue to do that work, right? Because one of the things that happens with women is that if it's too fluctuating, then her economic input is considered unimportant. Yeah, and it gets replaced very fast. And then she's asked to change into something. And, you know, I've heard of people working on sustainable livelihoods for women who said, It all takes, you know, like, their child being sick. And that kind of if she's a *(hindi) vendor*, okay, so and her child is sick for two weeks, she has lost business for two weeks, which means she literally might even have to restart the process. So in this kind of a situation, that's why I was asking about the finance angle that what do you see are the major hurdles for finance to understand the consumer that is a woman?

**RESPONDENT** 02:00

Um, again, I mean, I don't think it's any different… like, bringing that energy aspect changes it anyway, from what it is generally, what is different is what I told you, but the point that you made around like, you know, sustaining the business. So what we're seeing with clean energy livelihoods is that companies who are innovating and selling these products are using two kind of approaches. One is a product based approach where they're simply selling the product... maybe helping you in financing, but maybe not. And then just, you know, probably taking care of after sales services. The other, which is the value chain approach, they're what these enterprises are doing is that helping the women not just like getting the financing, putting the product to them, maybe sometimes even going for a rental model, and also taking like the finished goods from them and selling them. So, so for example, there is this company called S4S technologies in Maharashtra, S - number four - S. So, they will they have made these solar dryers, and what they're doing is working with tribal women in Maharashtra, they're giving like they've given finance these solar dryers for them. So, these women pay, repay through their monthly income, whatever they get, and they give them the raw material which, which also they're taking from women farmers, then asking these women to to process this raw material into dried products - which this company is then selling to different companies like multinationals who want like dried fruits and vegetables. And then giving these women have sustained flow of income, which has then helped them actually be like... repay the amount for that equipment loan. So and more and more companies are moving into this model. So we have like a company which works on silk... with silk value chain. So earlier, they were working, they were just selling a solar powered silk reeling machine, but now they've moving into a farm to fabric model. So, something like this approach really helps women and that sort of helps overcome all those hurdles of access to finance because there is a third party involved as an as the enterprise which is trying to sell their product, the enterprise is acting like an aggregator of loan for the for the NBFC or the bank whatever. And and then they are able to also ensure that kind of repayment because the women are getting a sustained income because of them. There is definitely a lot more dependency on this enterprise. And that is a drawback. But then so far, this kind of model has worked.

**INTERVIEWER** 05:13

And it's financially sustainable these kinds of models?

**RESPONDENT** 05:17

So far it has been, because earlier, they were doing it through through donor grant funded equipment like this giving free of cost equipment. But now they've been able to get it like on loan and like where women are actually paying for it. So it's a very legitimate business case. Like it's not... it's not grant money.

**Part 5: Concluding**

**INTERVIEWER** 05:36

So, XXXX, that's good. I'm done with my questions. Do you think we have not touched on anything you think, should be part of this topic?

**RESPONDENT** 05:49

Um, no, I don't think so. I think it's covered. Yeah.

**INTERVIEWER** 05:54

Okay. If there are any follow up questions, I can email you?

**RESPONDENT** 05:58

Sure.

**INTERVIEWER** 06:01

So I wanted to ask you, so initially, what brought me to you guys to XXXX is looking at that energy access, electricity access report? That's right. Yeah. So I just want to know whether it would be good for me to talk to one of the electricity team people to understand their perspective of gendering, I had actually approached the other person, I'm forgetting the name.

**RESPONDENT** 06:27

XXXX....

**INTERVIEWER** 06:28

Yeah, XXXX, who had then said that you work more on gender. But even the I mean, if you don't necessarily have to work on gender, to understand several strains of gendering, right. So, it would be helpful to talk from the electricity point of view to XXXX?

**RESPONDENT** 06:48

She might be by... she might be able to tell you like the electricity point of things. In terms of, but if you want a more gender perspective, so one of the co authors on that access report was, who was my supervisor here... XXXX. She's currently... she's moved out of XXXX. She's currently working XXXX. So if you want I can connect you,

**INTERVIEWER** 07:21

Could you connect me with her, that would be really good, because I really like to understand what their findings were with the electricity access, research work that they had done.

**RESPONDENT** 07:31

Sure. But I mean, to be very honest, I don't think electricity access in that research, really looked into gendered elements. I think that's why when we did the gender perception survey, we wanted it to have both electricity and cooking and lighting aspects. But yeah, I can connect you with XXXX. And if you want you can speak to XXXX as well. I mean, XXXX is very, very much in the power sector and electricity, residential energy sort of domain. And she does have an interest in gender. But like the kind of the work on the gender inculsion and energy access, particularly was XXXX and me and she's moved out a couple of months ago. So since then its been me

**INTERVIEWER** 08:27

I can talk to XXXX about it so if you would connect me to her it would be very good. Thank you, XXXX. It was a really good.

**RESPONDENT** 08:36

I enjoyed speaking to you.

**INTERVIEWER** 08:39

So I'll just switch off the recording.