

# Day 1 Q&A

## WHITE PAPER PRESENTATION FROM VICTORIA PLUTSHACK

1. **(Addressed in Q&A)** Marta Talevi: Touching a little on the issue of intersectionality, I was wondering how much of the research you reviewed focuses on poor and low-income rural women. Are middle-class and urban women understudied segments?

**Answer:** A majority of the articles we reviewed are from rural contexts. So yes, middle-class and urban settings are understudied. Some of the older energy related works for the middle-class and urban settings focus on energy conservation issues. Most of those are based in the developed countries. A few studies that look at white goods (washing machines, etc.) look at urban, more middle-class settings, mostly in Latin America.

2. **(Addressed in Q&A)** Chantal Carpentier: What are the best methods that have been used to empower women to not only use but own the infrastructure that delivers renewable energy?

**Answer:** As mentioned in the White Paper and presentation, the body of robust evidence on what energy programs/processes facilitate empowerment of women (be it adoption, use or ownership) is very thin. Much of the energy programs studied are in the cookstove sector, so very little is known about female empowerment in the renewable energy sector. It should also be noted that the focus of the white paper was on energy access, and so it did review papers on the renewable energy sector more broadly.

3. **(Addressed in Q&A)** Bishal Bharadwaj: Why is the red and Yellow in the Empowerment as determinant of adoption (slide) affecting only one of the energy areas ?

**Answer:** The frameworks included in the white paper illustrate the connections and pathways of empowerment driving adoption and adoption driving empowerment that are studied by the papers in our review, they do not represent theoretical frameworks of the pathways and connections that may exist.

4. **(Addressed in Q&A)** Sarah Baird: Since “resources are the precondition to making choices”, usage data is important for empowerment and access is often defined only as household adoption, are there studies looking at how female ownership of a solar light, for instance, can impact empowerment?

**Answer:** Dynes, M., Rosenthal, M., Hulland, E., Hardy, C., Torre, L., & Tomczyk, B. (2016). Handheld solar light use, durability, and retention among women and girls in internally displaced persons camps in Haiti—2013–2014. *International journal of disaster risk reduction*, 18, 162-170 is an example.

5. **(Addressed in Q&A)** Sasmita Patnaik: How can we integrate gender in all research in addition to gender-focussed research? It would mean highlighting the importance of gendered impact assessments as well building the team capacities to do so.

**Answer:** Integrating gender into research must happen in an organic fashion in areas where there are linkages with it.

6. **(Addressed in Q&A)** Joni Seager: Very surprised not to see references to WOCAN's W+ methodologies — absolutely fundamental work that set the frame for women's empowerment. Any reason? An oversight (if the latter, very strong suggestion you steep yourself in that work). Also from Kirsrtie Jagoe - Berkeley Air Monitoring Group The inclusion of WEAI is great - we wonder if you also considered W+ Standard created by WOCAN it unpackages empowerment into 6 domains.

**Answer:** As there were no peer-reviewed publications evaluating/examining the WOCAN framework, we missed out including it in our review. However, we will include it in the next version of the paper, and especially draw on its six domains of empowerment as we think through an energy-specific empowerment framework.

7. **(Addressed in Q&A)** Chantal Carpentier: I see engagement in governance and agency-based training in figure affecting women as energy entrepreneurs but it's clear exactly what it means

**Answer:** To further clarify, 'engagement in governance' is referring to having women in decision-making positions within the energy intervention/program.

8. **(Unanswered)** Bhim Adhikari: I think the SDG 13 is equally important like two others you have referred (5 and 7). In addition to these development benefits, access to clean/renewable energy also contribute to climate action both locally and globally. Perhaps, it would be good to bring the climate angle to this discussion.

**Answer:** Thanks for drawing our attention to this important SDG. We agree that SDG 13 was not incorporated in the version of the White Paper shared for the workshop. In future revisions, we will work on the climate angle.

9. **(Unanswered)** Grace Young: Great presentation, thank you. Talking about the aspects of empowerment for improving cleaner tech (and the need for intersectionality) which under studied aspect of empowerment is needing the most immediate attention to address the intersecting SDGs?

**Answer:** Much of the literature on female empowerment in the energy sector has focused on resources (e.g. land or asset ownership) or achievements (e.g. education, formal employment), but much less is known and understood about agency i.e. what processes facilitate long-term empowerment.

10. **(Unanswered)** Monica Maduekwe: What do you mean by 'empowerment training', referring to the article by Anita. Also, were other factors controlled for (if so, what were they?) to ensure that 'empowerment training' was behind increased sales?

**Answer:** The article describes 'empowerment training' like this: "The training focuses on the following competencies: (a) exercises are relevant and meaningful to the individual; (b) the locus of control sits firmly within the individual rather than on external forces; (c) a simple process of cognitive reframing is adapted; and (d) participants self-reflect to assess progress toward their goals." For a more detailed explanation of the intervention, here is the citation: Shankar, A.V., Onyura, M. and Alderman, J., 2015. Agency-based empowerment training enhances sales capacity of female energy entrepreneurs in Kenya. *Journal of health communication*, 20(sup1), pp.67-75.

11. **(Unanswered)** Emily Marsay: I was wondering if there are many studies that consider relational empowerment, or the impacts of being part of a network through engaging in clean energy entrepreneurship trainings

**Answer:** There were few/no studies on the role of networks in driving female empowerment and its subsequent effect on energy-related outcomes.

12. **(Unanswered)** Elizabeth Cecelski: Excellent review. I liked the earlier framework presented putting engagement with policymakers and practitioners to identify research needs as a first step in one of the Duke research programs. Was this part of this study or is it planned?

**Answer:** The researcher-practitioner and researcher-policymaker engagement was not part of the review, but we would very much like to build these engagements in future projects. The feedback we have received from practitioners and policymakers throughout the workshop will also be incorporated into the next version of this review.

13. **(Unanswered)** Tami Bond: What does the literature say about how energy access connects to empowerment within a certain population (which might show up for both women and men) versus relative female empowerment (which might show up as a difference between women and men)?

**Answer:** To the best of our knowledge, there were no studies on gender-differentiated empowerment in energy access.

14. **(Unanswered)** Karim Elbana: Any insights on using energy access to reduce the digital divide and thus foster women empowerment?

**Answer:** To the best of our knowledge, there were no studies on energy access reducing the digital divide that we reviewed, as it relates to gender.

## PANEL DISCUSSION WITH PRACTITIONERS

1. **(Partly addressed in Q&A, notably by Harriet Lamb)** Sarah Baird: Context matters. We, too, have found that some of the transformative effects of energy access may be less robust than originally promoted, since technology decisions and use are primarily male-dominated. However, we have found that when, for instance, a pico light is donated (not sold) to and owned by a new mother to impact health and safety in the home through a program at rural health clinics in Uganda, then her decision making ability and empowerment in the household is dramatically altered. She often is able to move the cooking area outside, she is able to make decisions about how to use the light indoors, and she and her household become more open to other clean energy products. Are there studies that examine how the provision of a safe pico light can act as a gateway to other energy access points and can impact health, safety and empowerment in low-resource communities? Should there be?

**Nilah Mitchell, 60 Decibels:** This is an area where Lean Data can certainly play a role. When we conduct our phone interviews, the survey tool we deploy includes questions, which go through the customer journey from whether the customer purchased the product / is the primary user to how it's used (e.g. for income generation or not / other HH uses), what their experience was using it, impact on quality of life, whether they'd recommend the product to a friend (and why), etc. Both quantitative and qualitative responses therefore allow for some deeper insights to emerge around decision-making, usage, impact.

**Annemarije Kooijman, ENERGIA:** In the ENERGIA research programme, the RCT study by EPRU (University of Cape Town) and IPA Rwanda looking into rechargeable LED lights in poor communities, showed that for Village Level Entrepreneurs: "in households of all-female VLEs, there are noticeable educational effects among school-age children, in the form of increased time spent reading or studying at home, compared to all-female controls and male VLES (almost an hour more per week raised household consumption and expenditure levels, one of the best measures of poverty, and thus increased general welfare significantly" <https://www.energia.org/cm2/wp-content/uploads/2019/04/RA5-Female-microenterprise-creation.pdf>

2. **(Partly addressed in Q&A, notably by Maurice)** Nipunika Perera: This is a question to E4I: What approaches have you used to encourage men and women to partner and foster relationships to access finance as you mentioned? Also what approaches have helped to demystify certain social and cultural barriers you mentioned (e.g.: when women's empowerment is seen as a threat)?

**Neha Juneja, Greenway Appliances:** In our experience (with cookstoves - trying to sell them on instalments), two approaches have worked: 1) Fostering women's groups and

facilitating decisions therein and 2) Giving clear transaction incentives on purchase (direct or with finance) to women. For example, if a woman comes forward to purchase in her name then the price/monthly instalment/interest payout is lesser or artificially higher for men. Usually, these incentives are very small but enable the family unit to make a decision as to who comes forward and becomes the owner, much more easily. I do however agree that this may not be the best solution but it works for us a business.

3. **(Partly addressed in Q&A, notably by Nilah)** Marc Jeuland: Question for 60 decibels: Have you used your data to consider patterns in relative balance of male vs. female customers, and whether they correlate with other company performance measures? Does your data collection approach allow this?

**Neha Juneja, Greenway Appliances:** At Greenway, we record the gender of the customer i.e. the person who pays and collects the stove for 100% of our sales. However, we have not done much with this data except for some customization in the marketing message and understanding where we can hire more women sales staff (we have had cases wherein women sales team members have felt discomfort/unsafe in male-dominated settings - not unusual in India). Interestingly, in Zambia, we have not seen the same correlation between the gender of the sales rep and the majority of the customers, as we do in India.

**Nilah Mitchell, 60 Decibels:** We also disaggregate our responses by sex and are working towards drawing out these insights further. For example, looking into whether a customer had another alternative or how they first heard about the product helps with marketing; questions around their distribution model, and similarly experience with usage; and Promoter Score (NPS); can offer insights into aforementioned patterns around female and male customers. We aim to make these results actionable for companies and organizations so they can adapt their products, strategies, or operations to maximize impact and business performance.

4. **(Partly addressed in Q&A)** Fortunatha Mollel: How can we increase number women entrepreneurs in solar business and productive use ie solar pumping.....because alot have be done in clean cooking than electrification.

**Annemarije Kooijman, ENERGIA:** Engaging women in the energy sector is on the 'gender agenda' in many countries, and increasingly in private sector. Interestingly, renewable energy is shown to engage more women than traditional energy sector (IRENA). For women micro/small energy entrepreneurs, indeed women have a role to play to reach the last mile. ENERGIA has collected learnings in this report: <https://www.energia.org/cm2/wp-content/uploads/2019/01/Supporting-Last-Mile-Women-Entrepreneurs.pdf>

5. **(Unanswered)** Tara Ramanathan: Hi everyone! Great to hear from the speakers so far :) I think a lot of the gender narrative is around the pre-purchase component of clean energy. But what about the gender issues that arise post purchase? Once a

woman purchases a clean stove or clean fuel, I have seen women experience a lot of inconvenience including usability and durability and fuel supply challenges. All of these cause extra burden to her life. How do we as a sector make better innovative designs that make ease of use for clean cooking?

**Annemarije Kooijman, ENERGIA:** The MECS programme is looking at this from many angles- including technical innovation and cooking preferences. <https://www.meecs.org.uk/> ENERGIA will be working with MECS to expand on the gender component.

6. **(Unanswered)** Safi Sanfo: Which indicators did you use to monitoring women empowerment?

**Neha Juneja, Greenway Appliances:** We track (with limited accuracy) how many of our customers come forward to become sales reps.

7. **(Unanswered)** Kirstie Jagoe: Great panel! The idea of the role of lean data is very interesting. Do you have information on the demographics of the people you can't reach or refuse to talk to understand how representative your data is?

**Nilah Mitchell, 60 Decibels:** We request basic demographic information from companies when they share their contact details. As data collection completes, we run checks on representation to make sure there aren't any patterns or trends among those whom we can't get through to or who refuse to speak with us.

8. **(Unanswered)** Emily Marsay: I think it's really interesting what was said about the potential to perpetuate or even exacerbate inequalities due to lack of access to financial services (I think Harriet raised this point). I would love to hear more about this. Has anyone else experienced any negative, rather than solely positive, effects of initiatives?
9. **(Unanswered)** Sarah Baird: What role can educational outreach sessions and social safety nets (not as market-based sales pitches but as market seeding strategies) play in resource-constrained settings in supporting the positive interlinkages and integration of SDG7 and SDG5?
10. **(Unanswered)** Magi Matinga: For agency based training, has there been a follow up on what happens when the supporting partner withdraws or years down the line? Do the effects persist or do some of the women "revert"? On 60 decibels approach, fantastic way of getting massive data and tackling geography. But is there a way of knowing whether a female customer is being pressured to answer in certain ways or being constrained by say a male partner standing over her (Which you can navigate in face to face interviews)?

**Nilah Mitchell, 60 Decibels:** Unfortunately not exactly. However, our researchers are trained to pick up on biases (not necessarily just gender related) and to make a note if

something feels off. We then pick these up in our quality checks. In addition, our interviews do run on average 15-20 minutes so if there were pressures / constraints the interview would likely be cut much shorter. Another challenge is getting women on the phone to interview in the first place (so access as one of the first issues, whether not having a handset or not being allowed to use it, for example).

11. **(Comment)** Magi Matinga: If I may chip in. In Nepal we found men having more profitable businesses as electricity came in while women were stuck with small less profit businesses so gaps remained or increased. In South Africa, we saw an increasing sense of disadvantage and social exclusion as electricity brought appliances to those that could afford while the poorest could just watch and wish

**Annemarije Kooijman, ENERGIA:** This finding is echoed in a number of studies- (eg in the ENERGA research programme the paper by [Pueyo et al World Development 2020: Exploring the linkages between energy, gender, and enterprise: Evidence from Tanzania;](#)) and calls for specific business development support targeted at the disadvantaged groups. Also, in my opinion, coherent support packages to rural areas for companies that provide extensive good quality paid employment opportunities.

12. **(Comment)** Elizabeth Cecelski: Pls think too about potential for changing household division of labour. Some years ago I participated in evaluation of GIZ solar cooker program in South Africa comparing 8 models. Men were more likely to want to use and take on some cooking responsibilities with the more modern looking models.

**Neha Juneja, Greenway Appliances:** I believe that if men were made to cook for a day under a national campaign, clean cooking adoption would skyrocket. Currently, there simply isn't enough empathy or understanding of the problem. It is just unseen/ignored/taken for granted.

## KEYNOTE TALK FROM MONICA MADUEKWE

1. **(Partly addressed in Q&A)** Dipendra Bhattarai: If there are women already in business then how they work for poor women's economic empowerment? But it sounds like, by woman ,for woman approach.

**Answer:** Our work activities for women at lower income levels is centered at improving their productivity levels, this we do through our initiative on Women's Economic Empowerment through Energy for Productive Uses. The objective of which is to expand energy access to support rural women in agricultural businesses and, thus, contribute towards poverty alleviation, increased employment, and improved health and educational levels of rural women for the sustainable development of the ECOWAS region. See more at: <http://ecowgen.ecreee.org/index.php/womens-economic-empowerment-through-energy-for-productive-uses/> This is a video of a pilot ECREEE implemented to support women in rural areas: <https://www.youtube.com/watch?v=gpREm9a4asc>

2. **(Partly addressed in Q&A)** Sarah Baird: In the "gendered impacts" can social impacts be measured through a SROI - or social return on investment in order to demonstrate SDG interlinkages in order to inform policy across silos and ministries?

**Answer:** This is great suggestion and it is definitely one worth exploring. In my experience, SROI are not used in designing projects. Although the socio-economic benefits of projects are usually detailed in the project proposals, it is not included in the financial modelling. Since the assumptions used in the financial modelling needs to be as close as possible to realities, learning how to quantify this (SROI), without bias, is needed. Perhaps there could be opportunities for capacity building in this area.

3. **(Partly addressed in Q&A)** Marc Jeuland: Other than providing the mandate to carry out assessments of gendered impacts, is ECOWAS providing governments and others on guidance on how to do these assessments? In other words, is there any standardization of the approaches being applied across countries?

**Answer:** We had provided templates for what a gender assessment report should include, but not a detailed how-to manual for conducting gender assessment. The feedback from the countries show that a guideline is necessary to move forward.

4. **(Partly addressed in Q&A)** Bhim Adhikari: I wonder if you could provide us with some sense of ownership of these decentralized energy systems supported by ECOWAS? Are these systems solely managed and operated only by the developers or there are example of community-owned/or some sort of cooperative units as well?

**Answer:** Ownership of decentralized energy systems, specifically mini-grids, is a mix of all these – projects could be owned by the government (through its rural electrification agencies), by the private sector (including communities) through concessions from government (e.g. Senegal's mini grid initiative), etc. Visit our observatory for information on clean energy mini-grids in existence (not ownership per se):

<http://www.ecowrex.org/mapView/index.php?lang=eng&mclayers=layerCEMG&lat=3404395.540509&lon=2246258.6818245&zoom=3>

5. **(Partly addressed in Q&A)** Bhim Adhikari: Also do we have any lessons learned in terms of impact (income, livelihood, etc) of different system of ownership?

**Answer:** No, we haven't studied this. But it sounds very interesting.

6. **(Unanswered)** Katrina Mullan: Have you seen examples of ways in which active inclusion of women in stakeholder consultation leads to different recommendations or outcomes for energy investments?

**Answer:** Yes. Please see case studies here:

<http://www.ecowrex.org/document/background-study-developing-legal-instrument-gender-assessments-energy-infrastructure>

7. **(Unanswered)** Rex Alirigia: How are your interventions leveraging information and supporting local NGO's in member countries who are doing similar work?

**Answer:** We work closely with local NGOs to implement our activities on the ground. We refer to them as Replicator Organizations (ROs). In 2017, we launched a call to identify NGOs in the space we could work with: <http://www.ecreee.org/news/ecowas-training-announcement-incorporating-gender-sensitivity-energy-practices>

8. **(Unanswered)** Kirstie Jagoe: Are you monitoring impacts of the program? If so in what way and what is being shown so far?

**Answer:** We completed the program's first cycle last year. I am happy to share with you the testimonial video: [https://drive.google.com/file/d/1-r085cguuj5VuAFU3tiZ6KNiNick\\_CgQ/view?usp=sharing](https://drive.google.com/file/d/1-r085cguuj5VuAFU3tiZ6KNiNick_CgQ/view?usp=sharing)

9. **(Unanswered)** Tara Ramanathan: Thank you for speaking about local economic development. As we all know, Achieving the long term benefits of clean cooking requires long term use of the clean cookstove. If a clean cookstove breaks, or if the fuel supply chain is expensive to sustain, how do you recommend local economic development can support the sustained use of clean cooking?

**Answer:** At high levels of economic development you tend to see high levels of economic activities (production, buying and selling, etc). At high levels of economic activities you tend to see higher levels of disposal income. At higher levels of disposal income you tend to see higher levels of supply of goods and services the public is demanding for. I therefore believe that with local economic development there should be a self-sustaining market for clean cook stoves whereby supply will meet demand.

10. **(Unanswered)** Safi Sanfo: We are implementing a similar project on renewable energy generation. The project offered demonstrators and monitoring the system. Did you provide those women with electricity? is it renewable energy? Did you develop any business model to sustaining the system?

**Answer:** I would have liked some more clarification on the question. In general, the projects co-funded by ECREEE are renewable energy projects. Also, the business models are determined by the project promoter/developer. The soundness of the business model is a condition for ECREEE's co-funding through grant, please see a sample of our calls: <http://www.ecreee.org/news/3rd-call-ecowas-renewable-energy-facility-now-opened>

## KEYNOTE TALKS FROM AMBER PETERMAN & ANITA SHANKAR

1. **(Addressed in Q&A)** Marc Jeuland: For the interesting result that joint decisions are perceived as less empowered than sole decisions in Ghana whereas the opposite is true in Bangladesh, what is your interpretation (or is the study able to identify) the reason for this divergence? Does it have to do with the types of households making joint or separate decisions being different across contexts, or something else?

**Anita Shankar:** Autonomy as a social construct has different meanings in cultures based on the beliefs and values that have resulted from the interaction between communities and the environment around them. In the same way empowerment has different definitions in each context and it is not possible to state that making sole decisions are inherently more empowering than joint decisions from one culture to the next. As the participant noted, these differences are likely guided by members in the household, the values, beliefs and traditions of the community, etc. These conditions can vary by household and locale and it is difficult to generalize.

**Amber Peterman:** For the particular study on 'jointness in decision-making autonomy' done with Greg Seymour of IFPRI – we conjecture that women in Bangladesh preferred joint decisions because they recognized outcomes would be better when they had the 'buy in' from their husbands. For example, due to the mobility restrictions and heavy patriarchal norms in Bangladesh, women may believe that if they make a joint decision with regards to production on the family farm – the ultimate outcome may be more favorable than under a scenario where they make a production decision alone. This is just a conjecture based on past literature on gender and agricultural systems in both countries, as we are not able to test it directly with our data. However, one concrete take away is that we should be cautious as researcher in making assumptions about preferences and underlying motivations behind decisions across contexts. This example shows us that jointness is valued differently in different settings – and that we cannot automatically assume that sole decision-making is better than a joint decision. We blog about a few of these take-aways here. One way to get around this issue it to simply ask about perceived power in decision-making for a certain domain, rather than who makes the decision (this is a strategy that is used by the pro-WEAI).

2. **(Addressed in Q&A)** Emily Marsay: This is really interesting, do you have an associated paper or working paper about this topic?

**Anita Shankar:** Attached are a few papers ([1](#), [2](#)) associated with the talk given.

3. **(Addressed in Q&A)** Tara Ramanathan: I am hungry to dig more into the post purchase experience for women. You touched on after sales service. I have seen hundreds of women experience so much inconvenience by the usability, durability and supply chain of clean stoves and clean fuels. Can you speak to that and how we

can push the bounds on ensuring that stove designs and fuel supply chains meet women's needs?

**Anita Shankar:** As mentioned during the presentation, this is an important challenge to address and will require greater engagement of women designers and engineers as well as significant engagement and pretesting by the local community members that the stoves are targeted to.

4. **(Addressed in Q&A)** Dipendra Bhattarai: How did you select the local woman entrepreneurs? We struggled to find local women entrepreneurs in rural areas.

**Anita Shankar:** This is a major issue in many areas. Remember that there are multiple layers of thought that need to be addressed and overcome – you are asking individuals in communities to think and act in ways that may not understand. We have found that most people don't believe these things can be done (e.g. be a woman entrepreneur) until a woman becomes an entrepreneur (it is a lot like the 4 minute mile – it couldn't be done, until it was). So my suggestion is that there is focus on other aspects of entrepreneurial ecosystem and keep supporting women who show interest.

5. **(Addressed in Q&A)** Sarah Baird: To Anita: Was the Empowerment training more expensive and longer than the standard training?

**Anita Shankar:** No, - the empowerment training and business training costs the same to conduct.

6. **(Unanswered)** Victoria Plutshack: What does 'true gender analysis' mean/look like? How can we construct research that does that?

**Anita Shankar:** Good question – one way would be to use theories of capital to see how men and women differ in terms of access to specific types of capital, whether it be: economic, time, social, symbolic or cultural.

7. **(Unanswered)** Krishnapriya P.P.: Are there studies that focus on the time taken for mindsets to change? What are some of the interventions which have accelerated this process?

**Anita Shankar:** Good question. There are a few clarifications to make here – what do you mean by 'mindsets to change'? What specifically do you see changing? Would it be a particular way of thinking? There are data on time required to create a new habit or change a behavior – although estimates range from 21 to 77 days. We have found that our personal agency-based empowerment training greatly accelerates moving towards a 'growth' mindset for participants over a period of 1-3 months (that include training plus post training support)

8. **(Unanswered)** Rocio Perez Ochoa: Is there some type of public access to the content of agency based empowerment training?

**Anita Shankar:** I am attaching the most recent version of the [EETP handbook](#) for distribution. The one available on line has not been updated.

9. **(Unanswered)** Marc Jeuland: I am curious to know how the impacts of the empowerment training differ by gender. So not so much whether women and men are able to sell as much, or whether empowerment training works overall, but does it improve outcomes (firm survival, sales, etc.) for both men and women sellers?

**Anita Shankar:** Good question. With respect to sales, both women and men sold better with the empowerment training than the standard business training (basically more than twice as many sales for both men and women). I don't recall if retention was the same, and I think the women's businesses tended to stay open for longer. When we examined shifts in a series of psycho-metric measure, such as the Ryff scales for social agency – overall women improved significantly more from baseline to endline as compared to men. For some metrics this was because men started (their baseline) with greater levels of agency than women.

10. **(Unanswered)** Victoria Plutshack: What does tailoring the training to cultural context look like? How has this training been adjusted for different contexts?

**Anita Shankar:** A key component of the training materials is the Human Centered Design Handbook, which allows organizations to review their specific population and then determine how best to adapt the curriculum to their participants. However, the key to tailoring the training to the cultural context requires a high fidelity understanding of the content by someone from that culture. That is that trained trainer must not only understand the basics of the material, but also they must be actively using this content in their daily lives (i.e. have demonstrated a 'growth' mindset)

11. **(Unanswered)** Emily Marsay: Did the empowered entrepreneur training lead to any differences in women's 'time capital' or the impact on the conflict between paid and unpaid work? Was this particular study looking primarily at sales or also at the impact on indicators of empowerment and different types of capital (social, cultural, time) such as you defined at the beginning?

**Anita Shankar:** Good question. Unfortunately, we did not have the opportunity to systematically examine changes in time capital (although we are hoping to be able to do that in other research studies). Anecdotally, we have noticed that women who have undergone the empowerment training tend to be more willing to delegate tasks, take time to rest and find ways to de stress as they manage the activities of the day.

12. **(Unanswered)** Elena Van Hove: Overall, what are best practices for adding a gender lens to electricity access projects? Where can we (practitioners) find resources to appropriately do so? Example projects that come to mind are electrification planning or capacity building of utilities which don't typically account for gender in the project

**Anita Shankar:** There are several resources out there – a good place to start is ENERGIA and SE4ALL (in their People Centered Accelerator group) as they have been doing a lot of work in that space.

13. **(Addressed in Q&A)** From Ipsita Das - You mentioned diversifying research products and packaging evidence differently to make research count. From your experience in the social protection sector, what are some examples of these products?

**Amber Peterman:** From work with the Transfer Project, we've tried to address the critique of traditional impact evaluation that "results" are only available after the evaluation is done (typically after several years). By this time the policy window has closed and/or in many cases implementers lose out on critical analysis that could improve their intervention. We try to conduct different types of analysis to produce a "pipeline of products", including analysis of the baseline data (e.g. social protection targeting and/or simulations of potential impacts on households or the local economy), or analysis of qualitative or process evaluation data during early stages of program implementation. I think the variety of products and packaging might vary widely depending on context, but could range from policy or research briefs, to blogs, infographics or podcasts. Also very important are presentations to diverse audiences – especially in the national or local context you are working. We talk about some of these ideas for research translation in this Transfer Project blog.

14. **(Addressed in Q&A)** From Marc Jeuland: We heard about 60decibels and the lean data approach (mostly phone-based). Given your comments about the need to not oversimplify, do you think there is a potential for more widespread data collection using a "leaner" approach on empowerment, and how would you advise trying to develop such an approach?

**Amber Peterman:** I think this could be possible. I think especially after COVID-19 and so many data collections transition to remote – more efforts in the future will try to stick with this methodology and as researchers we should be ready to adapt to new ways of working. I think ideally, a broader and more detailed set of indicators could be piloted in person – and then the full set of indicators could be reduced to an abbreviated version that could be piloted/administered over the phone. A similar process was done with the WEAI whereby an abbreviated version was developed and analysis of the two versions ensured that the

shortened version was highly correlated with the full version. I think the challenge is that questions over the phone need to be quite straightforward and also ideally be non-sensitive. For example, if indicators on gender-based violence were part of an original index, it is likely these would need to be dropped for remote administration. I think a strategy to counteract the lean-ness of indicators within this type of approach is to collect some complementary (remote) qualitative data to bring more context and richness to explain dynamics behind them.

**Anita Shankar:** To reiterate what was said during the Q&A – a definition of agency is to be able to make decisions and take action – so this would be something that could easily be captured in a lean data approach – identify what individuals said they wanted to do and after a set amount of time find out if they did it or if their goal changed and why?

15. **(Unanswered)** Elizabeth Cecelski: Could you say more about the coordinating body at international & regional levels setting the agenda and aspirational goals? is this specific to gender in social protection? we do not have this in energy sector though SE4All has been a good energy platform to make gender more visible.

**Amber Peterman:** For social protection, at the international level, this has been the SPIAC-B Gender Working Group – it is a sub-group of a broader social protection coordinating group (so if energy had such a general group that would be a good place to start). This group has been particularly active for international forum to develop statements and push for advocacy, and coordinate workstreams of different organizations at the global level (for example, this statement before CSW 63). This group has a secretariat / coordinating head, and meets approximately quarterly (sometimes in person) – and also coordinates broader public facing activities (e.g. webinars, background papers etc.). Broader online platforms also exist for online gender communities, for example via SocialProtection.org. Donors have been particularly instrumental in facilitating these coordination, advocacy and information sharing groups.

16. **(Unanswered)** Alicia Oberholzer: This question is for Amber...you mentioned the difficulties in measuring empowerment and also that any sort of measurement needs to be very inclusive of the different dimensions involved. Research evaluations require a great deal of funding, time and expertise...do you see any sort of potential for empowerment measurement frameworks that could be accessible to on-the-ground organizations that aren't extremely well-funded? I think it's important that practitioners gain more access to measurement frameworks or there will continue to be a lack of research-based implementation on-the-ground if only scholars are able to conduct these evaluations.

**Amber Peterman:** Similar to the “lean data” approach – I think there are ways to develop more complex measures – paired with alternatives for abbreviated versions that could be used for on-the-ground organizations. There was a discussion around the possibility of developing a toolbox that could be adapted to different settings and used for different objectives, which could allow such an approach. This is important because questions for a rapid assessment will differ from monitoring, and these will both differ from questions you may want to ask in an evaluation. For the energy sector, I can see a multi-dimensional measure could take into account multiple types of energy (e.g. lighting, cooking etc.) whereas individual organizations may choose to implement questions around only one type of energy – so this could also be a way to simplify a broader complex measure. The work would need to go in at the outset – building on already great work on gender and energy – to develop both quant and qual measures within this type of toolbox. Perhaps something SETI and others will take on?

**Anita Shankar:** A number of researchers have been struggling with issue over the years and it has been a challenging metric to pin down. But that doesn’t mean that we shouldn’t continue work on this. For personal agency, the work of Albert Bandura is the place to start to help develop locally pertinent metrics.

17. **(Unanswered)** Ipsita Das: Question to Amber – How do researchers strike a balance between designing gender-sensitive studies in one sector (say, energy) & engaging with macro-level processes you described, while still being able to keep the “identification strategy” intact?

**Amber Peterman:** This is a good question, and I think there are many potential ways this could be done. In social protection, we are just starting to think about how to do this, but one way is to focus (where possible) on some of these linkages in individual impact evaluations. For example, we are increasingly studying the effects of cash transfers specifically on outcomes like migration and household composition, as well as on outcomes like conservation (including payments to slow deforestation). Of course, in the current COVID-19 crisis, social protection is also being used as a very popular tool to mitigate against adverse economic impacts, and this will be studied. We are also realizing that as the world increasingly urbanizes, we need more research on urban models of social protection. So some of this is just being aware that your research priorities and agendas consider the big picture questions as well as the micro-questions. Another approach is to make sure the theoretical and institutional connections with larger political economy aspects are captured between gender and energy – and some of this analysis can come out at the macro level. I expect these connections are even stronger than in social protection, since energy is such a global issue and connected to climate change and other macroprocesses—so in some sense, perhaps energy is far ahead of where other sectors are!

18. **(Unanswered)** Stephanie Scott: how have institution's national policies responded to WEAI?

**Amber Peterman:** I am not directly involved in the WEAI work any more – so I do not have up to date examples. However I know that the WEAI baselines were influential in helping USAID (Feed the Future) tailor their programming to address particular gaps around the five domains (How is the WEAI making a difference?). IFPRI also has a WEAI resource page that has many examples of how certain projects and organizations have used the tool to improve gender-responsiveness of their projects.

## Day 2 Q&A

### RESEARCH FLASH TALK PRESENTATIONS

**Alejandra Schueftan:** Gender Aspects in Energy Poverty and Energy Transition of the South Central Region of Chile

- **Q (Erin Sills)** I'm interested in your choice to study female- vs male-headed households. Did you expect that differential impacts on women are most likely to be observed in female-headed households (as opposed to women in male-headed households), or did you end up focusing on this because of data availability?

**Answer:** We focused on the difference between women versus men heads of household mainly due to the availability of data that we have. This survey was only answered by those who made decisions within the household, so we do not have the perception of women who are not heads of household. However, given the experience working in the area, we believe that the perception of female heads of household vs. women in male-headed households should not differ. It would be interesting, however, to analyze this difference. The limitation to be able to carry out this type of analysis, as well as others, reaffirms our position regarding the need to conduct a nationwide survey focused on characterizing energy poverty in a multidimensional way.

**Dipendra Bhattarai:** Promoting SPIPs with a gendered focus paying dividends

- **Q (Erin Sills)** Did you detect any negative effects/ backlash to your design offering better deals to female farmers than male farmers? E.g. was this perceived as unfairly favoring women, leading to negative feedbacks on gender relations?

**Answer:** Thank you for the question. There was no negative effects but many male farmers were curious on why the division of incentive based on gender. Their point was on, how will it matter at household level or the household benefit if a male or a female adopts the system? We need to answer this question every time saying that we want to increase the asset ownership of female at household, in addition they can participate on capacity building programs such as vegetable or aqua culture farming trainings which may help them to empower and will also give an opportunity to interact with other farmers.

**Imelda:** Clean energy access: gender disparity, health, and labor supply

- **Q (Sarah Baird)** Are health impacts from dirty fuel measured with DALY measurement tool?

**Answer:** We use lung capacity which is already provided in the survey. You forcefully blow up a handheld device that measures how well air moves out of your lungs. This is relatively easy to do in the survey. To put the magnitude into perspective, in the paper, we simply compare the estimates to the impact of smoking on lung capacity. We find that the improvement in lung capacity among women is comparable to the improvement in lung capacity of a regular smoker (who smokes one pack cigarettes every day) quits smoking for 10 years! If you are interested in a bit more detail, the working paper is available here: <https://econpapers.repec.org/paper/ctewerepe/29397.htm>

**Ipsita Das:** Gendered Solar Mini-Grid Access in Myanmar

- **Q (Erin Sills)** Did I understand correctly that you found that girls and boys study for the same number of hours in households with lighting, but that girls study more hours in households without lighting?

**Answer:** Yes, we found this result in the pilot study. To provide some descriptive stats: in non-lighted households, girls study/read for 10.6 hours per week and boys study/read for 3.1 hours per week. In lighted households, girls study/read for 10.2 hours per week and boys study/read for 10.1 hours per week.

**Logan Richardson:** Intra-household bargaining power of household energy in South Africa

- **Q (Marc Jeuland)** Important to understand, I think, how those bargaining power measures correlate with household characteristics

**Answer:** Thank you, Marc, for pointing out the importance of understanding these correlations. The bargaining power measurement variables are generally not very correlated with the age of the household head, education level of the most educated household member, and income based on the Spearman correlation coefficients. However, the bargaining power variables appear to be fairly positively correlated with household size, female-headed households, and dependency percent, and they are negatively correlated with the average age of the household.

- **Q (Katie Dickinson)** Really interesting results, Logan! I'm wondering how highly correlated your decision variables are. How frequently are women primary decision makers for purchases, but not living location (for example)?

**Answer:** Thank you for this important question, Katie. Based on the Spearman correlation coefficients, all of the decision-making variables are highly positively correlated with each other as all variable pairs have a coefficient greater than 0.8. The decision-maker for large purchases and where the household should live are most highly correlated with a coefficient of 0.895, while the decision-maker for where the household should live and

where children should attend school are least correlated with each other with a coefficient of 0.815. Interestingly, these decision-making variables and the variable of if any woman in the household owns a bank account are not highly correlated with a coefficient of around 0.25 for each of these decision-making variables.

**Maximiliane Sievert:** Rural Electrification and Domestic Violence in Sub Saharan Africa

- **Q (Sarah Baird)** Very interesting and would love to discuss further. Our grassroots partner, Solar Health Uganda, has found that in rural off-grid Uganda, new mothers say that having a solar light that she owns has reduced IPV because she is able to use her pico light to care for her baby without stressing the household finances by using expensive kerosene or candles during the nighttime hours.

**Answer:** This observation is super interesting and it is this kind of stories and details that my analysis is unable to provide. I can only observe that at the given aggregation level I am unable to find any relationship between electricity and attitudes towards IPV. Of course this doesn't mean that in certain contexts there might not be a relationship (for example depending on the media content that is now easier to access after electrification or as in your case in very specific circumstances for particular women). I am very happy to discuss this further with you – so please feel free to reach out to me!

- **Q (Amber Peterman)** Hi Maxie - very interesting. Challenging (as you mention) to account for the endogeneity in the electrification --> IPV attitude relationship. In particular the role of resources (wealth) & how this relates to IPV vs electrification per se. This paper is quite interesting in that light - also using DHS in Africa - it tries to break out the role of wealth, and wealth inequalities and IPV experience & attitudes: <https://www.sciencedirect.com/science/article/pii/S0305750X17300542>

**Answer:** Thanks for sharing this very interesting paper, Amber!

**Phindile Nkosi:** Women bargaining power and energy ladder hypothesis: Evidence from South Africa.

- **Q (Katie Dickinson)** Nice work! Curious to hear more about your plans for the bargaining power index

**Answer:** The bargaining power index will be created using responses from women on decisions women are part of in the household. There are five questions asked in that regard in the survey. We use a principal component analysis to generate the index.

**Rebecca Klege:** Risk attitudes, gender and business success among off-grid renewable energy entrepreneurs in rural Rwanda

- **Q (Anita Shankar)** Nice work and results are similar to what we find in other entrepreneurial sectors. It may be useful to examine different types of risk assessment -as women may be willing to take calculated risks (as opposed to males (i.e. go big or go home).

**Answer:** Yes, I agree that looking into different types of risk will provide a better overview as to the type of risk women are more likely to take. The experimental design and subjective measures of risk used in my study, unfortunately, does not include these different angles which is a limitation and it likely that follow up study on this will be quite useful.

**Romy Listo:** Resetting the focus on women's empowerment: what meanings and nature of energy?

- **Q (Magi Matinga)** Interesting on critical energy literacy in South Africa. My work finds low - to borrow from you - CEL problematic in women's empowerment vs agencies and agents of development that brings question not just of women's empowerment vs "their men" but women's empowerment vs engaging with "bringers of development" NGOs, researchers, policy makers. Where the imbalance of power means limited activism/power and muted voices in what women and men REALLY want. If women and men in these settings has critical energy literacy and power to, what technologies would they choose for themselves? What indicators for empowerment would they choose for themselves.

**Answer:** It sounds as though our work mirrors each others Magi, and the conclusion of my work is that there is a need to refocus from what particular technologies or appliances can deliver for empowerment indicators, also to consider what the power imbalances that are part of energy interventions and what these prevent in terms of empowerment. This includes in relation to NGOs, policy-makers, researchers, and in my view, local councilors and Ministers. There's of course a very rich literature from critical development studies on the power inequalities that are inherent to development work, including energy for development work. Like your work, mine is also from an anthropological, and sociological perspective, and is interested in how women define power, rather than what we can measure of it. The conclusion of my work is that a refocusing is needed, first and foremost, on increasing women's power, rather on the cause and effect of energy and technologies. The emphasis shifts from energy, to where women may choose energy technology and appliances to meet their own goals and aspirations, and therefore power. In practice, it's

about facilitating a process of empowerment in which energy may play a part, rather than delivering an energy intervention.

**Sied Hassen:** Impact of improved stoves on fuel re-allocation and intrahousehold participation into income generating activities

- **Q (Marc Jeuland)** Were most sample respondents agricultural households?

**Answer:** Yes, almost all of the households main source of income is Agriculture including livestock activities.

- **Q (Jennifer Orgill-Meyer)** Did you attempt to measure leisure time at all to see if time was re-allocated towards leisure activities?

**Answer:** We don't measure the extent the households spent the saved time into leisure. I expect the wives to spend the saved time into social activities such as religious party, common in the area or visiting neighbours etc.

- **Q (Imelda)** Do you record the time diary? Even though there is no improvement in income generating activities, is there any other time benefit that may not be non-monetary, such as cooking time, leisure, etc.

**Answer:** We have record of time spent in cooking but we do not have a time record for leisure. The results indicate a time saving from cooking as well.