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Pro-WEAI in the Field

Lessons Learned from Teff Farmers in Ethiopia



Case Study from IGNITE
July 2022

The Impacting Gender and Nutrition through Innovative Technical Exchange in Agriculture (IGNITE) mechanism is a five-year investment to strengthen African institutions' ability to integrate nutrition and gender into their way of doing business and their agriculture interventions. IGNITE works with African agricultural institutions in Ethiopia, Nigeria, Burkina Faso, and Tanzania.

Introduction

Women's empowerment is a complex concept to measure in development research. The Women's Empowerment in Agriculture Index (WEAI) provides a standardized way to measure agency and participation in decision-making for female farmers. While the full WEAI survey is generally used by governments and national initiatives to measure progress towards women's empowerment in agriculture on a national scale, IGNITE recently deployed several modules from the Pro-WEAI empowerment framework to assess the extent and impact of women's involvement in decision-making on teff farming (in the context of a study on best practice adoption in Ethiopia). In the process, we learned that implementing a standardized tool in a new, highly localized environment is not without its challenges. This case study shares insights into the lessons we've learned, and suggestions for adapting the some of the Pro-WEAI modules to the local context.

Assessing Women's Decision-Making for Teff Farming

The aim of this study was to identify which gender factors influence decision-making on the adoption of best practices (BPs) in teff farming households in the West Gojjam region of Amhara regional state in Ethiopia. To this end, we carried out three rounds of a quantitative household survey with a final sample of 555 households, where one adult man and one adult woman were interviewed in each round. The surveys were complemented by 9 focus group discussions and 12 in-depth interviews with farmers, and 4 key informant interviews with development agents and teff crop experts.



Photo: Woman in Lebe village, Amhara, Ethiopia. Radim Z (2015). Available at Wikimedia Commons

Methodology Considerations

In Ethiopia, existing research suggests that decisions around best practice adoption are governed by many factors. The evidence indicates that each decision involves the husband and wife in varying degrees, with the husband typically playing a more dominant role, and women almost never making decisions autonomously.

Most agricultural surveys approach the household as a unit, speaking only to one person and taking those responses as representative of the entire household. Given that the aim of this research was to explore intra-household decision-making, our approach targeted one man and one woman per household and asked them about their participation and involvement in household decision-making through selected Pro-WEAI modules (summarized below). This gave us multiple perspectives into household dynamics, but also allowed us to speak to women who are often not considered as the primary respondents of agricultural household surveys.

Another key consideration was the complexity of the decision-making process in farm households. Researchers studying decision-making classify households as male, female, or joint decision-making households to indicate who is the primary decision-maker on certain household decisions (e.g., technology adoption, savings, production, expenditures). While helpful, this categorization often masks the complexity of household decision-making, in that it is difficult to define what constitutes a 'joint' decision. For example, if a husband makes the final decision, but consults his wife in the process, should this decision be labelled male-led or joint? Furthermore, the labels do not always feel relevant to households with other structures (e.g., polygamous households, households with extended family structure where additional family members participate in decision-making). There is also ongoing debate about whether joint decision-making or sole decision-making is preferable in terms of outcomes, and under what circumstances. In the WEAI framework on input into productive

decisions, empowerment is assessed on whether a respondent has any form of decision-making power (sole or joint) but does not value one higher than the other. We therefore employed the Pro-WEAI in order to steer clear of such normative judgments with respect to which form of decision-making is preferable.

WEAI Overview

The WEAI is a standardized survey tool, developed by IFPRI, Oxford Poverty and Human Development Initiative (OPHI), and USAID's Feed the Future to measure women's empowerment and inclusion in the agricultural sector. The Project WEAI (Pro-WEAI) version of the tool consists of three inter-related dimensions: agency, resources, and achievements, and is made up of 10 indicators (and 2 optional indicators) that measure three types of agency: intrinsic agency (power within), instrumental agency (power to), and collective agency (power with). Our study employed the following Pro-WEAI modules to measure dimensions of empowerment that were relevant for our research questions:

Pro-WEAI Modules Used in the Teff Study

- 1.1 Input in Productive Decisions: Decisions about Agricultural Production
- 2.1 Access to Productive Resources: Asset Ownership
- 2.3 Access to Productive Resources: Access to Credit and Financial Services
- 3.0 Control over use of income
- 4.1 Leadership in the Community: Group Memberships

Optional Module: Woman's Health and Nutrition

Implementing the Pro-WEAI in Ethiopia

In this section we document some of the challenges the research team faced in implementing the Pro-WEAI in Ethiopia, and how the team went about mitigating them.

Challenges & Mitigation

The primary challenges we encountered when using Pro-WEAI to measure decision-making and empowerment were the following:

1. Adapting questions to the local context. we found that some questions pertaining to the household's asset endowments or nutrition didn't always make sense in the West Gojjam context. We therefore adapted these questions wherever possible to reflect

farmers' lived realities.

2. Changing the wording of the questions: We did this in order to minimize bias and accurately capture the decision-making processes we are interested in.
3. Mitigating enumerator effects by restructuring questions to minimize bias and explore all decision-making dimensions that feed into the classification of respondents as empowered or not empowered.
4. Defining decision-making in line with local social norms: Farmers may not relate to decision-making in line with the Pro-WEAI framework. This is why we conducted additional qualitative research to delve deeper into the norms and dynamics underpinning agricultural decisions.

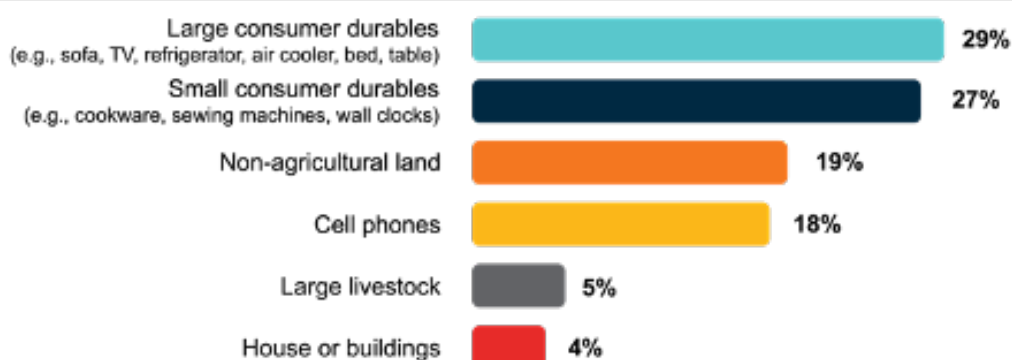
1. Adapting questions to the local context

Women and men do not always agree

During our first round of data collection, we found that intra-household disagreement on asset ownership was common. As part of the Access to Productive Resources: Asset Ownership module of the Pro-WEAI, women and men are asked if their household owns certain assets. Men and women in the same household often gave different responses when asked about certain assets and items — for example, 29% of households diverged with respect to owning large consumer durables, 27% on whether they own small consumer durables, 19% disagreed with respect to non-agricultural land ownership, 18% disagreed on cell phone ownership, and 4.5% disagreed on cattle ownership. One possible cause of these discrepancies may be respondents reporting their own individual assets, as perceived by them, as opposed to household assets (as requested by the

survey). A second possible explanation is poor intra-household communication, whereby some respondents genuinely do not know about assets owned by another individual in the household (this is more likely for smaller or more individually held assets like cell phones). Another possible reason is ambiguity in the definition of assets or ownership, and different perceptions by different individuals. Finally, there is also the possibility of 'enumerator effects' – that is, a systematic difference in the way enumerators collected or recorded answers to the questions, leading to bias. While these reporting differences are common in other studies with multiple respondents per household, we wanted to delve deeper into the definition of assets as presented in the WEAI and explore the asset categories where we found the most disagreement. The figure below shows the level of disagreement between men and women regarding the household's ownership of certain assets.

Percentage of women and men in the same household who disagree on whether the household owns an asset



Examples not locally relevant

The way assets are defined and grouped in the Pro-WEAI may not be relevant for the local context. For instance, our study population resides in an area which predominantly has no access to electricity. When asked about large consumer durables, an asset category where we find large disagreement in reported household ownership between men and women, respondents had to indicate whether they own items such as a refrigerator, TV, an air cooler or a sofa. We wanted to keep as close to the standardized Pro-WEAI module as possible in order to maintain comparability with data from other studies. However, WEAI does not provide an exhaustive list for this category and we decided to expand the examples to include furniture such as tables and beds. In retrospect, this disparate list of items may have led to confusion among respondents. Not having data from the field on what typical asset endowments in the study location would be made deciding on these examples a challenge. Following data collection in rural Ethiopia, we found out it is common for every household to own a bed (typically the couple's), but in our study area, given the very low share of households with access to electricity (14%), it was highly unlikely that any household would own any of the electronic appliances that fall under this category. The answer to this question can therefore range from 100% ownership for furniture like beds, to 0% ownership for refrigerators or air coolers, depending on how the respondents understand the question, and what examples the enumerators choose to give. A similar issue arises for the small consumer durables category, which includes items such as cookware, sewing machines, or wall clocks. It is customary for rural households in Ethiopia to own cookware for food preparation, but items such as sewing machines are highly uncommon and are typically owned by service providers such as tailors in larger rural communities. The answers here can therefore also fluctuate widely

depending on the respondents' understanding of small durables. This poses a problem for the quality of our data, as it's difficult to assess household endowments if respondents disagree, or have different understandings of what these asset categories refer to.

Choice of foods not culturally relevant

Pro-WEAI includes two optional modules on women's health and nutrition. As part of the nutrition module, we asked both male and female respondents about their household's decision-making process with respect to buying large quantities of food (over 5 kg), small quantities of food (under 5 kg), individual food groups (such as meat, eggs, dairy or vegetables), as well as decision-making and preferences on who decides what the household can eat, and what foods to prepare. While we found very consistent answers between men and women with respect to the household's dietary and food preparation decisions, we encountered difficulties when administering questions about the purchase and consumption of eggs, milk and milk products, meat, and poultry, as these were not relevant for the staple Ethiopian diet in rural areas. For instance, respondents were asked about their purchasing patterns for these items on normal days. However, these food items are typically not part of a day-to-day diet in our study area and are rather consumed on special occasions. Furthermore, many of these items are produced within the household (particularly eggs and dairy products), which means purchasing behavior does not accurately reflect consumption patterns. A further consideration is how religious practices impact dietary practices. For example, Orthodox Christians (which represent the majority in our study area) do not consume animal products on Wednesdays and Fridays, as well as during multiple fasting periods in the year. The timing of asking these questions can therefore impact the answers provided, depending on the day of the week or the period of the year.

“..... we encountered difficulties when administering questions about the purchase and consumption of eggs, milk and milk products, meat, and poultry, as these were not relevant for the staple Ethiopian diet in rural areas.”

Mitigation recommendation: In order to better understand a household's endowments, using assets that are relevant for the local context, and grouping them in categories with relatively similar ownership rates is crucial. As WEAL is a standardized tool that aims to enable comparisons in empowerment between countries, researchers are faced with the decision between preserving as much of the original WEAL structure as possible, in order to remain faithful to the methodology of assessing empowerment, and being mindful of the local context, which may not be accurately depicted in the content of the questions. While we did not change the definition of assets included in the survey for this study, we are taking these lessons learned forward and implementing them for another IGNITE study using the Pro-WEAL in Ethiopia. We have changed the definition of large consumer durables to include TVs, sofas, and gas or electric stoves, and small consumer durables to include radios, solar-powered lamps, wall clocks, and watches. For the nutrition module, we listened to the ongoing feedback from our enumerators on the ground and changed the question relating to meat, dairy and eggs to include purchases and consumption on festive days as well, since these food groups are typically consumed for religious holidays and special occasions. Doing so enabled us to collect more accurate data from farmers, instead of the standard "Not applicable/household does not purchase this" answer.

2. Changing the wording of the questions

Choice of words leading to different responses

We observed during data collection how the wording of decision-making questions in the Input into Productive Decisions Pro-WEAL module may result in slightly different answers. For instance, joint decision-making between spouses is reported more often if a question is open ('who "usually" makes a decision?'), than in replies to specific questions about who made decisions ('who made this decision this season?'). To avoid this effect, we asked questions both about decisions made this season, as well as about the general decision-making process.

Another example is the case of decision-making on farming of staple grains, which is one of the standard questions in the Input into Productive Decisions module. In our case, we opted to split this category into two – farming of teff specifically, and then farming of other grains – as we wanted to focus on the crop of interest. This allowed us to identify decision-making patterns in more detail, as teff is typically considered a male-dominated crop, while women may have more involvement in the farming of other grains.

Lost in translation and cultural context

In addition to being mindful of the wording we used, we also paid attention to the way the questions' meaning is carried across in Amharic. The language used for some questions in English was uncommon or did not translate well, and were therefore simplified in

their Amharic version, to ease comprehension. For instance, "How much input did you have in decisions about how much of the outputs of staple grain farming and processing of the harvest of other grains that are grown primarily for food consumption to keep for consumption at home rather than selling?" became "What is your input when a decision is made about what portion of other crops is to be sold and what portion is to be kept at home (for home consumption)?".

Generally, when translating questions about decision-making on staple grain farming and processing of the harvest, phrasing and capturing the exact meaning of "processing the harvest" in Amharic was difficult. "Processing of the harvest" is translated in the Amharic as 'gathering of the harvest'. This Amharic translation is the closest in meaning to the English version. However, it does not capture the different aspects of 'harvest processing', including pounding, grinding, packaging, soaking, drying, whitening, milling, etc., which are also not captured in the English version of the question. The problem with asking this question in its existing form in the Pro-WEAL and its Amharic translation is that it leads respondents to conceptualize 'harvest processing' narrowly and equate it with 'harvest gathering' alone, therefore implicitly asking who the decision maker is only for this activity. However, for some of activities that could fall under 'harvest processing', women may have more responsibilities and could also be the primary decision makers, while for others, men assume the primary decision-maker role and its accompanying responsibilities.


Mitigation recommendation: Being mindful of how a question’s wording or translation can influence responses is key. Sometimes the question can be broken down into parts, to capture the decision-making process more accurately, or slightly rephrased, to ease the respondents’ understanding. In terms of content, in the case of harvest processing, we believe including a more elaborate definition that lists all activities associated with it in both the English and Amharic versions may also capture the decision-making dynamics pertaining to harvest processing more accurately. This question could then be broken down into multiple questions corresponding to the various activities associated with harvest processing, in order to more accurately identify who the primary decision maker is at each stage. We are taking these lessons forward and applying them for future IGNITE studies using the Pro-WEAI in Ethiopia.

3. Mitigating enumerator effects

Identifying the enumerator effect

An ‘enumerator effect’ is a source of bias in research that stems from a systematic difference in the way enumerators collected or recorded answers to the questions. The Pro-WEAI Input in Productive Decisions module begins the question “Did you participate in the following activities in the past 12 months?” with a list of activities for enumerators to read out loud.


The relevance of all subsequent questions in the module is determined by the responses to this question. The way that this survey module is structured creates high dependency on this first multiple-choice question. In other words, when the question is structured as a multiple-choice, enumerators can choose to omit decision areas from the list, not read it out in its entirety to participants, and limit themselves to 2-3 activities, while skipping the rest.

 **Pro-WEAI Module on Input into Productive Decisions**

Q1: Did you participate in the following activities in the past 12 months?


You may select multiple

<input checked="" type="checkbox"/>	Teff farming and processing
<input type="checkbox"/>	Staple grain (rice, maize, wheat, millet) farming and processing
<input type="checkbox"/>	Horticultural or high value crop farming and processing of harvest
<input checked="" type="checkbox"/>	Large livestock raising and processing of milk / meat
<input type="checkbox"/>	Small livestock raising and processing of milk / meat
<input type="checkbox"/>	Poultry / other small animal raising & processing of eggs / meat
<input type="checkbox"/>	Fishpond culture
<input type="checkbox"/>	Non-farm economic activities
<input type="checkbox"/>	Wage and salary employment
<input type="checkbox"/>	None of these

All future questions in the module depend on the responses to this question. 

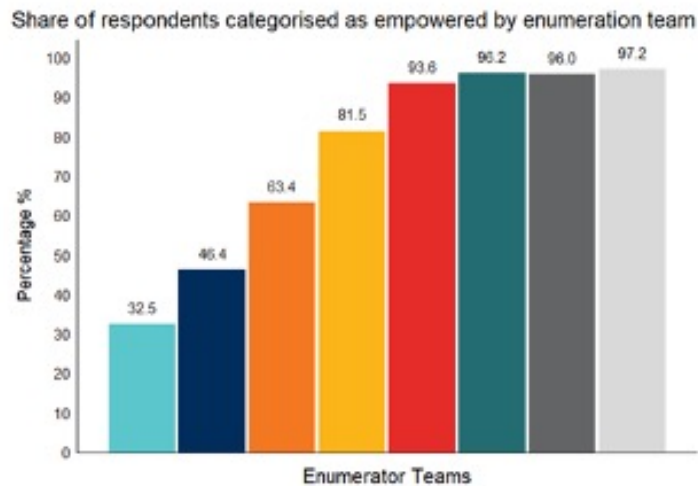
Enumerators were systematically under-reporting selections on this question, with some enumerators almost always selecting just two categories.

This leads to an under-reporting of empowerment.

 To mitigate this enumerator effect, we changed the structure of the questionnaire to ask about each of the choice options individually, rather than using a multiple selection field.

This question was found to be prone to enumerator effects in our study and a large source of bias. Using data from our first round of data collection, we were able to accurately predict whether a respondent will be classified as empowered or not based on the number of decision areas selected on this initial question and we found significant variation by

enumeration teams. Approximately 50% of the variation in the resulting WEAI indicator could be explained by the enumeration team that visited the household. In theory, the enumerator team should have no influence on empowerment! We would expect these percentages to be similar for all teams.



Mitigation recommendation: In order to mitigate the issue of enumerator effects in the WEAI “Input in Productive Decisions” module we restructured the module to remove the multiple-select initial filter question, and replaced it with a series of “yes or no” questions. This meant that the enumerators ticked each activity one by one and gained more meaningful responses from participants. In parallel, we added additional in-field monitoring checks for this issue to all subsequent rounds of data collection and conducted refresher training with the enumeration team between survey rounds 1 and 2 with a specific focus on interpretation of the survey questions and interviewer neutrality. We found that this approach eliminated the enumerator effects we observed.

4. Defining decision-making in line with local social norms

Decision-making is complex

On a conceptual level, questions in the WEAI about decision making seem to come from a tacit assumption that rural households follow an individualistic, rational, and straightforward model of decision-making where an agenda is set every season, household members will bring their individual perspectives and interests to the table, a decision on the agenda is made and the household will follow through to implement that decision. Such an approach may run the risk of ignoring social norms, nuanced processes and factors that influence decision making and its outcomes, as well as unexpected changes in decisions.

Social norms shape decision-making

We found a strong social norm towards notions of joint ownership of assets and income. Men are seen as the final decision-maker and referred to as such by female household members, but his decision is expected to benefit the entire household, and assets are seen as joint property, often also registered under both

the husband and wife’s names. This makes assessing notions of ownership and control over assets, or control over the use of income, less straightforward. For example, in the case of selling the teff harvest or selling a large asset such as a cow, farmers expect the household to be in agreement, with many male farmers stating that although the wife may ultimately defer to the man for the final decision, failing to secure her agreement is likely to result in a divorce. Misallocating the income resulting from such sales is also regarded as a grave breach of trust. While the men are seen as the primary decision-makers with respect to uses of income resulting from teff, it is expected that the income will be spent on household investments and not on individual purchases. Women’s participation in the decision-making process is therefore less explicit, but their influence stems from their perceived ability by both men and women to walk away and dissolve the family unit in case the man’s decisions do not consider the household’s interests as a whole. Farmers’ perception of self as an individual and as part of a community or family unit can therefore influence how they perceive and approach the decision-making process, and how they understand the questions in the WEAI.

Mitigation recommendation: When applying the Pro-WEAI tool in Ethiopia, we recommend supplementing your study with a qualitative component to understand precisely how decisions are made and to capture the nuanced and complex nature of the decision-making process in rural households. From our qualitative study, we have seen that decisions (e.g., about the number of times the teff plot is plowed) are typically taken by men, but will be influenced by pressure and input from female farmers, DAs, and agriculture experts. In addition, farmers will often be undecided on various activities, such as on the number of times they want to till their teff plots, and there will be multiple time points where decisions will be made and then changed as a result of discussions throughout the course of the farming season. Though the man in the household typically has more power when it comes to decision making, there is an expectation for couples to be in agreement. This is driven by a social norm in the study area that encourages couples to move towards consensus when there is a disagreement. Supplementing the WEAI with adequate qualitative data collection can enable researchers to better map complex decision-making processes, and understand the social norms shaping them.

Conclusion

The Pro-WEAI is a powerful tool that researchers and development practitioners can use to assess women's empowerment in agriculture. However, it is important to adapt the tool to the local context to ensure high quality data. For IGNITE's recent study in Ethiopia, these adaptations included rephrasing of questions, removing answer choice options, restructuring of modules, and even re-collecting data when quality was not high. These adaptations can only be identified and ultimately made through a deep understanding of local context. For research teams implementing the Pro-WEAI in Ethiopia or any other country, IGNITE recommends taking the following steps to ensure you get the most of the collected data:

1. Embedded in local context. The research team must be embedded in the local context in order to identify these limitations. Having a deep understanding of culture and customs will uncover sources of bias

that may otherwise be unnoticed or lead to incorrect interpretation.

2. Rigorous field piloting of instruments. Even standardized survey modules (like the WEAI) need to be rigorously tested in the field before use. Local customs and culture vary drastically both within and between countries, so adapting survey modules to your specific context is essential.
3. Monitoring of incoming data for anomalies. Live monitoring of data as it is collected and maintaining strong lines of communication with the data collection team will allow for identification of any anomalies in the data.
4. Qualitative data is essential. Adding a qualitative component to your study allows for a richer understanding of context, including social norms.

IGNITE remains available to discuss these challenges and share our lessons learned with any researchers looking to implement the Pro-WEAI in Ethiopia or any other context.

¹ IFPRI WEAI & Pro-WEAI: <https://www.ifpri.org/project/weai>

² Acosta, M., van Wessel, M., Van Bommel, S., Ampaire, E. L., Twyman, J., Jassogne, L., & Feindt, P. H. (2020). What does it mean to make a 'joint' decision? Unpacking intra-household decision making in agriculture: Implications for policy and practice. *The journal of development studies*, 56(6), 1210-1229.

This case study was written by Loana Lungu and Bruk Degie at Laterite.

IGNITE Partners

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