IFPRI Discussion Paper 01949

July 2020

Gender and Food Security in Honduras

Summer Allen

Luciana Delgado

Markets, Trade, and Institutions Division

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

The International Food Policy Research Institute (IFPRI), a CGIAR Research Center established in 1975, provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition. IFPRI's strategic research aims to foster a climate-resilient and sustainable food supply; promote healthy diets and nutrition for all; build inclusive and efficient markets, trade systems, and food industries; transform agricultural and rural economies; and strengthen institutions and governance. Gender is integrated in all the Institute's work. Partnerships, communications, capacity strengthening, and data and knowledge management are essential components to translate IFPRI's research from action to impact. The Institute's regional and country programs play a critical role in responding to demand for food policy research and in delivering holistic support for country-led development. IFPRI collaborates with partners around the world.

AUTHORS

Summer Allen (sallen41@gmail.com) was a Senior Research Coordinator in the Markets, Trade, and Institutions Division of the International Food Policy Research Institute, Washington, DC.

Luciana Delgado (Luciana.Delgado@cgiar.org) is a Research Analyst in IFPRI's Markets, Trade and Institutions Division, Washington, DC.

ABSTRACT

This study, supported by the Netherlands Development Organisation (SNV), obtained information on a range of topics associated with food security and nutrition, gender, and water access in selected villages of Honduras. The data collection prioritized a set of communities of interest to the civil society organizations that are part of the Voice for Change Program in Honduras. The data collection, done in 2018, covered 647 households across the departments of Choluteca, Lempira, and Ocotepeque. Most households surveyed face high levels of food insecurity. Only 26% of the women between 12 and 49 years are receiving the minimum dietary diversity. Access to water and sanitation is also limited with 30% of the households sourcing their water from a well or river and 51% not treating the water before drinking it. According to the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI) only 34% of women sampled are considered empowered. The survey results indicate that the biggest hurdles to women's empowerment are the amount of time spent working and limited decision-making power regarding accessing credit and productive activities.

Keywords: A-WEAI, gender empowerment, Honduras, dietary diversity, food security

ACKNOWLEDGMENTS

The authors gratefully acknowledge funding from the Dutch Government through SNV and the Voice for Change Partnership (V4CP) Programme as well as the cooperation and participation of the Civil Society Organizations (FOPRIDEH, ASONOG, RDS, and CDH) based in Honduras. The authors acknowledge the assistance of Flor Paz (Research Analyst, MTID) and Audrey Pereira (Senior Research Analyst, PHND), Emily Myers (Research Analyst, PHND), Ara Go (Program Manager, PHND) and Hazel Malapit (Senior Research Coordinator, PHND) in preparing the A-WEAI survey questions and estimating the results and editorial reviews by Chloe van Biljon (Research Analyst, EPTD) and Rob Vos (Division Director, MTID).

ACRONYMS

ASONOG: Association of Non-Governmental Organizations in Honduras
A-WEAI: Abbreviated Women's Empowerment in Agriculture Index
CDH: Center for Human Development
CSOs: Civil Society Organizations
FOPRIDEH: Federation of Non-Govermental Organizations for Development in Honduras
FSN: Food Security and Nutrition
GPI: Gender Parity Index
HFIAS: Household Food Insecurity Access Scale
MDD-W: Minimum Dietary Diversity of Women
OPHI: Oxford Poverty and Human Development Initiative
RDS: Sustainable Development Network
SNV: Netherlands Development Organisation
USAID: United States Agency for International Development
WEAI: Women's Empowerment in Agriculture Index
5DE: Five domains of women's empowerment

1. INTRODUCTION

Since 2016, IFPRI has been working with the Netherlands Development Organisation (SNV) through the Voice for Change Program in partnership with Civil Society Organizations (CSOs) based in Honduras: FOPRIDEH, RDS, ASONOG, CDH, Fundación Vida y Hermandad Honduras. Voice for Change is a five-year multinational and multisectoral program, which was developed in six countries: Kenya, Rwanda, Burkina Faso, Ghana, Indonesia, and Honduras. The objective of the SNV Food Security and Nutrition (FSN) program in Honduras was to design and execute studies that reflect the current FSN situation to support targeted policies. The main objective of the survey in 2018 was to provide information to help understand the FSN situation, access to water, and women's empowerment in households across eight municipalities in the departments of Lempira, Ocotepeque, and Choluteca. The study included household-level surveys on access to (and quality of) water, gender empowerment, and FSN as well as focus groups regarding gender and resilience. This discussion paper focuses primarily on the data that was collected for the purpose of measuring women's empowerment to further the understanding of socio-economic constraints faced by women in rural areas of Honduras. The paper starts with the survey methods and household-level information followed by the data collected regarding agricultural production, food security and dietary diversity and women's empowerment.

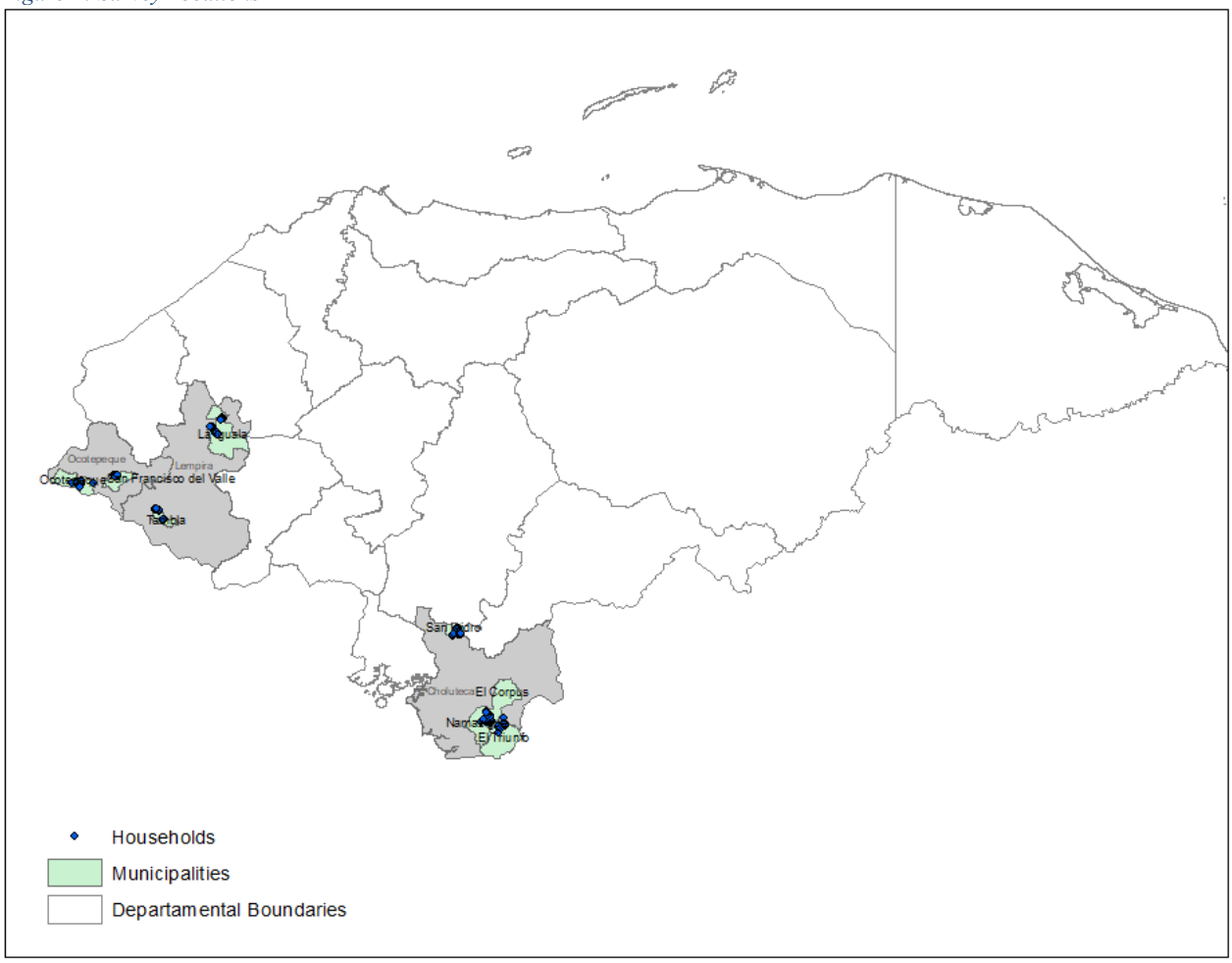
2. METHODS

The survey was conducted during August and September 2018 with a total of 647 households surveyed: 275 in Choluteca, 191 in Lempira, and 181 in Ocotepeque (Figure 1). For the construction of the sample frame, population data from the National Statistics Institute (INE, 2013) were used, taking into consideration the number of rural households in each community.[1] The CSOs selected the villages of interest across the nine municipalities and representative samples of households were selected at that level. Samples were drawn randomly in each pre-selected village using a village map and clearly defined

[1] A non-response rate of 10% was assumed for cases where interviews could not be conducted as planned and an interclass correlation coefficient (ρ) of 0.1 was used.

intervals (based upon the size of the village) in the following municipalities: San Isidro, Namasigue/El Corpus, El Triunfo (Choluteca), La Iguala and Tambla (Lempira), and San Francisco del Valle and Ocotepeque (Ocotepeque).

Figure 1: Survey Locations



Source: Authors

As mentioned, the CSOs selected the villages of interest to gain additional information regarding the challenges for agricultural production and food security and nutrition in these areas. Focus group interviews were also conducted at the municipal level with men and women separately and collected information on challenges for food security. Village-level surveys were also completed to obtain more information on programs available in the village and understand the heterogeneity between villages. The villages included in the survey are shown in Table 1, some of which have local names listed in parentheses when names did not match the listing of the INE population survey.

Table 1: Sampled Villages

Departament	Municipality	Village
Ocotepeque	Antigua Ocotepeque	• Barrio Ramos Soto • San Rafael • Barrio Calvario
	Ocotepeque	• Pie del Cerro • Las Vegas de Azacualpa
	San Francisco de Valle	• El Sile
Lempira	Tambla	• El Portillo de San Lucas • El Zarzal • El Aceituno
	La Iguala	• El Matasano • Los Llanos • Los Tablones
Choluteca	San Isidro	• El Caulote • Sonit • El Obrajito
	El Triunfo	• El Platanillo • San Buenaventura 1 • San Buenaventura 2 • Rio Grande No. 1
	Namasigue	• Las Pilitas-San Francisco • San Rafael Arriba (el Tajo)
	Namasigue-El Corpus	• Las Pitas (San Francisco) • Santa Isabel

The survey included questions at the individual and household level about the composition of households, educational levels, employment, access to water and household assets. The sample included households with an adult man and woman as well as households with only an adult woman given the application of the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI) which requires responses from women. The survey results show that 87% of the households in the sample are made up of both men and women and 13% of the households are headed by a woman without a male partner. On average, 47 years the average age of the household head. There is an average of four to five members per household with an average of 2.3 children per household and a maximum of 9 children (up to 18 years old) per household. The dependent population (persons under 12 or over 65) averages 1.6 members per household. While most household heads are self-employed in agriculture, there is also a significant number of them who work as day laborers in farm and off-farm activities (especially, commerce and construction) while the majority of women in these households work as homemakers, more than 20% work as merchants or day laborers. In terms of literacy, more than 30% of the households have at least one person over 15 years of age that is illiterate and 22% of household heads are illiterate. Household heads had 3.6 years of

education on average. For those in the household, 74% of the people over 16 had at least some years of basic education and 16% had not been to any school. There are many children between the ages of 12 and 16 who are working as day laborers or in agriculture, while only 12% are studying.

The summary statistics for selected household characteristics are shown by village in the tables below. While many households have water access through private water user groups, 51% of households in the villages surveyed in Choluteca are getting their water from a well and only 38% of these households treat it before drinking. In the villages surveyed in Lempira and Ocotepeque, there is large variation among the villages regarding whether households treat their drinking water. For the households that do not treat their water, there was increased incidence of diarrhea and stomach problems for children under 5 years old. In terms of sanitation facilities, on average by village, 44% of the households are using a taza campesina (a no-flush toilet connected to a septic system), 23% of the households are using a latrine, and 13% of the households do not have sanitation facilities. However, there is heterogeneity among the villages in each department as a few villages (for example, El Obrajito in San Isidro and San Rafael de Arriba in Namasigue) show a majority of households without sanitation facilities.

Table 2: Household Characteristics Choluteca

Household Characteristics	Las Pitas	Sta. Isabel	San Buenaventura No. 1	San Buenaventura No. 2	Rio Grande No. 1	El Plantanillo	San Francisco	San Rafael de Arriba	El Caulote	El Obrajito	Sonit
Traditional stove	82%	39%	93%	80%	50%	95%	58%	63%	26%	65%	59%
Dirt floor	69%	41%	41%	39%	38%	76%	30%	81%	19%	23%	37%
Water from well	21%	0%	90%	58%	78%	64%	59%	6%	6%	0%	38%
Water from river	26%	0%	0%	3%	4%	32%	9%	81%	12%	100%	55%
No water treatment	38%	71%	28%	45%	48%	43%	66%	6%	19%	18%	41%
No sanitation facilities	0%	0%	5%	3%	5%	10%	4%	56%	19%	59%	26%

Table 3: Household Characteristics Lempira

Household Characteristics	El Matasano	Los Llanos	Los Tablones	El Zarzal	Portillo de San Lucas	San Francisco de Aceituno
Traditional stove	23%	26%	27%	25%	35%	0%
Dirt floor	63%	63%	37%	13%	10%	25%
Water from well	0%	3%	0%	0%	0%	0%
Water from river	2%	0%	2%	44%	19%	0%
No water treatment	70%	67%	49%	38%	10%	0%
No sanitation facilities	23%	13%	18%	0%	0%	8%

Table 4: Household Characteristics Ocotepeque

Household Characteristics	Barrio el Calvario	Barrio Ramos Soto	Pie del Cerro	Las Vegas de Azacualpa	San Rafael	El Sile
Traditional stove	34%	21%	18%	26%	31%	31%
Dirt floor	7%	4%	12%	4%	7%	11%
Water from well	10%	3%	0%	0%	0%	0%
Water from river	0%	0%	3%	12%	0%	4%
No water treatment	90%	78%	74%	83%	71%	33%
No sanitation facilities	0%	4%	0%	0%	0%	22%

3. RESULTS

The descriptive results from the selected communities can offer some interesting points of observation for rural areas in Honduras and identify contraints to improvements in women's empowerment, food security, and dietary diversity. While there is heterogeneity between the communities, they also face similar challenges for food security.

Agricultural Production

Of those households surveyed, 43% have an agricultural plot where they live but this is less common in the villages surveyed in Ocotepeque where only 22% have an agricultural plot where they live. On average, the size of the plots is 1.05 manzanas.[2] A majority of the plots (57%) belong to a household member and the most common crops are corn, coffee, and red beans. The vast majority of the basic grain crops in the plots are used for home consumption. The average reported yield of maize was 12 quintales per manzana (approximately 789kg per hectare). These yields are low when compared with the average maize yield in Honduras in 2018 (1,802.5 kg per hectare) (FAOSTAT, 2020). Lower yields are partly explained by significant pre-harvest production losses. Many households reported losing at least half of their planted crops due to pests, disease or climatic shocks. Reported crop losses in the villages surveyed for Ocotepeque were particularly high for both red beans and corn mainly due to a lack of rainfall and moisture in the soil in addition to pests and wind damage.

[2] One manzana in Honduras is equivalent to approximately 0.7 hectares.

Food Security and Dietary Diversity

The incidence and depth of food insecurity in the households of the sample was calculated using the Household Food Insecurity Access Scale (HFIAS) defined by USAID.[3] This tool is based upon the idea that the experience of food insecurity has predictable reactions and responses that can be captured, quantified, and summarized on a scale. Each of the questions is answered according to a period of four weeks (30 days). If the respondent responds affirmatively to a question of this type, s/he is also asked the frequency of occurrence to determine if the condition has occurred rarely (once or twice), sometimes (between three and ten times) or frequently (more than 10 times) in the last four weeks. Table 5 shows the percentage of households that have experienced each of the food security situations in the last thirty days. Of the households sampled, 71% have changed their diets due to a lack of resources and 65% have worried that would not have enough food in the last 30 days.

Table 5: Incidences of household food insecurity

In the last 30 days…	% positive responses *N=647 households*
…did you worry that your household would not have enough food?	65%
…were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	71%
…did you or any household member have to eat a limited variety of foods due to a lack of resources?	63%
…did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	63%
…did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	51%
…did you or any household member have to eat fewer meals in a day because there was not enough food?	45%
…was there ever no food to eat of any kind in your household because of lack of resources to get food?	35%
…did you or any household member go to sleep at night hungry because there was not enough food?	23%
…did you or any household member go a whole day and night without eating anything because there was not enough food?	11%

The HFIAS can be calculated using the responses to these questions as well as how often they occurred with the final score ranging from 0 (no food insecurity) to 27 (highest level of food insecurity). Some households in the sample did report the highest possible level of food security (i.e., a score of 27). The average results by village (Table 6) show particularly high levels of food insecurity in the villages of Choluteca. Calculating levels of food insecurity for the households[4], we find that 40.5% are severely food insecure, 28.7% are moderately food insecure and 10.7% are mildly food insecure. Only 20% of the

[3] https://www.fantaproject.org/monitoring-and-evaluation/household-food-insecurity-access-scale-hfias

[4] Based on the HFIAS methodology as detailed in Coates, Swindale, and Bilinsky (2007).

households did not face food insecurity in the last month according to the HFIAS.[5]

Table 6: Household Food Insecurity Access Score (HFIAS)

Department	Municipality	Hamlet	Village	HFIAS	N
CHOLUTECA	EL CORPUS	EL DESPOBLADO	LAS PITAS	5.9	16
			STA. ISABEL	6.9	17
	EL TRIUNFO	EL PERICO	SAN BUENAVENTURA NO. 1	12.0	39
			SAN BUENAVENTURA NO. 2	11.3	33
		RIO GRANDE NO.2	RIO GRANDE NO.1	8.2	21
		SANTA TERESA ARRIBA	EL PLATANILLO	8.1	21
	NAMASIGUE	SAN FRANCISCO	SAN FRANCISCO	6.7	47
		SAN RAFAEL	SAN RAFAEL DE ARRIBA	15.1	16
	SAN ISIDRO	EL CAULOTE	EL CAULOTE	6.6	16
		EL OBRAJITO	EL OBRAJITO	10.2	22
		SONIT	SONIT	8.6	27
LEMPIRA	LA IGUALA	EL MATASANO	EL MATASANO	10.0	64
		LOS LLANOS	LOS LLANOS	8.5	30
		LOS TABLONES	LOS TABLONES	7.4	49
	TAMBLA	EL ZARZAL	EL ZARZAL	8.1	16
			PORTILLO DE SAN LUCAS	5.5	20
		SAN FRANCISCO DEL ACEITUNO	SAN FRANCISCO DEL ACEITUNO	8.4	12
OCOTEPEQUE	OCOTEPEQUE	BARRIO EL CALVARIO	BARRIO EL CALVARIO	8.4	29
		BARRIO RAMOS SOTO	BARRIO RAMOS SOTO	6.3	27
		PIE DEL CERRO	PIE DEL CERRO	7.1	34
		SAN RAFAEL	LAS VEGAS DE AZACUALPA	7.6	23
			SAN RAFAEL	9.0	14
	SAN FRANCISCO DEL VALLE	EL SILE	EL SILE	7.5	54

In addition to food security, the ability to consume a variety of foods to ensure enough essential nutrients is a challenge to many households in rural areas of Honduras. The Minimum Dietary Diversity of Women (MDD-W) is used to reflect the individual dietary intake and nutrient adequacy of women of reproductive age. It is an indicator based upon whether women aged 15 to 49 have consumed at least five of ten defined food groups during the proceeding 24 hours.[6] The proportion of women who reach this minimum in a population can be used as an indicator of a greater adequacy of micronutrients, an

[5] By the HFIAS score, households are considered *food secure* when they respond they only rarely or not at all are worried about having anough food and also do not experience any of the other conditions related to the questions listed in Table 5. In contrast, those considered *severely food insecure* experience all conditions on occasion or frequently, while those considered moderately food insecure, broadly speaking, experienced the first four conditions on occasion or frequently and conditions 5 and 6 sometimes. The group of *mildy food inscure* households consist of those who regularly worry about having enough food to eat and being able to buy the variety of food they need and occasionnally ate less because of lack of resources. See Coates, Swindale, and Bilinsky (2007) for the full explanation.

[6] https://www.fantaproject.org/monitoring-and-evaluation/minimum-dietary-diversity-women-indicator-mddw

important dimension of diet quality. The indicator is seen as a conservative estimate of household nutritional security and is associated with household food production, wealth, knowledge about FSN, and household size. Due to the fact that girls between 12 and 15 years can also become pregnant, we also obtained information for the larger range of 12 to 49 years, as shown in Table 7 by village. In most villages, less than 30% of women in this age group have met minimal dietary diversity and in some villages, less than 10% of women are meeting the minimum level of dietary diversity.

Table 7: Percentage of girls and women that had Minimum Dietary Diversity, aged 12 to 49

Department	Municipality	Hamlet	Village	% women with adequate diet	N
CHOLUTECA	EL CORPUS	EL DESPOBLADO	LAS PITAS	18%	40
			STA. ISABEL	19%	42
	EL TRIUNFO	EL PERICO	SAN BUENAVENTURA NO. 1	17%	103
			SAN BUENAVENTURA NO. 2	21%	89
		RIO GRANDE NO.2	RIO GRANDE NO.1	24%	49
		SANTA TERESA ARRIBA	EL PLATANILLO	22%	58
	NAMASIGUE	SAN FRANCISCO	SAN FRANCISCO	30%	103
		SAN RAFAEL	SAN RAFAEL DE ARRIBA	8%	38
	SAN ISIDRO	EL CAULOTE	EL CAULOTE	29%	31
		EL OBRAJITO	EL OBRAJITO	13%	38
		SONIT	SONIT	8%	74
LEMPIRA	LA IGUALA	EL MATASANO	EL MATASANO	22%	156
		LOS LLANOS	LOS LLANOS	29%	73
		LOS TABLONES	LOS TABLONES	36%	122
	TAMBLA	EL ZARZAL	EL ZARZAL	17%	41
			PORTILLO DE SAN LUCAS	5%	38
		SAN FRANCISCO DEL ACEITUNO	SAN FRANCISCO DEL ACEITUNO	55%	29
OCOTEPEQUE	OCOTEPEQUE	BARRIO EL CALVARIO	BARRIO EL CALVARIO	22%	68
		BARRIO RAMOS SOTO	BARRIO RAMOS SOTO	25%	63
		PIE DEL CERRO	PIE DEL CERRO	28%	83
		SAN RAFAEL	LAS VEGAS DE AZACUALPA	22%	49
			SAN RAFAEL	19%	37
	SAN FRANCISCO DEL VALLE	EL SILE	EL SILE	23%	124

Gender Empowerment

Women's empowerment is also a very important issue in and of itself in addition to its benefits to resilience, economic opportunities, and children's nutrition. The Women's Empowerment in Agriculture Index (WEAI) is an index to measure agency of women in the agricultural sector. The WEAI was developed by researchers from USAID, IFPRI, and the Oxford Poverty and Human Development

Initiative (OPHI) to track changes in the levels of empowerment of women that occur as a direct or indirect consequence of interventions in the "Feed the Future" framework for the fight against global hunger and food security (Alkire et al. 2013). Empowerment is multifactorial so the WEAI includes a number of components. The abbreviated version of the WEAI (A-WEAI) includes decision-making over agricultural production and economic activities, ownership of resources in the home, control over the use of income, participation in community groups, and time use (Malapit, et al. 2017). It is an aggregate index with two components:

- Five domains of women's empowerment (5DE): This component determines whether women are empowered in five domains of agricultural empowerment: production, resources, income, leadership and time.
- Gender Parity Index (GPI): reflects the percentage of women who have the same level of empowerment as men in their homes.

For production, the questions measure whether the individual contributes to productive decisions or not, including decisions related to agricultural production (agriculture for consumption, agriculture for trade, livestock, and fish or aquaculture). The target population is the primary male and female decisionmakers in the household. If the individual has not participated in any agricultural activities the previous year, the individual is not taken into account. In this sample, there were 224 women and 43 men who have not participated in any agricultural activity in the previous year so these individuals cannot be used to calculate the indices. In addition, any individual who has not reported information on any of the index components is excluded (for example, individuals that can ask for loans, but haven't in the previous year, or individuals whose homes do not have any type of assets, whether large or small). If an individual fails to meet at least one of these conditions, he or she is not considered in the sample.

Likewise, for the GPI component of the index, it is necessary to have complete information for both the man and the woman in the home simultaneously. Therefore, if either the man or the woman do not meet the conditions described above, the household cannot be counted for the GPI. Thus, of the 647 households in the sample, only 230 have complete information for men and women to calculate the GPI and

therefore, the A-WEAI. As mentioned earlier, the results represent a small sample from each department and are not representative at that level.

In terms of the components of the A-WEAI, the production domain assesses decision-making power over agricultural production. The resources domain reflects the control and access of individuals to productive resources. The income domain monitors an individual's control over the use of financial resources derived from agricultural production or other sources. The leadership domain captures access to social capital. The time domain reflects the workload of individuals.

Role in Decision Making (Women and Men)

The first part of the A-WEAI is the input into decision making for the activities in which individuals participate. As shown in Figure 2, while almost all men participate in agriculture for consumption, more than half of the men surveyed mentioned that they could not make decisions about this activity. As shown in Figure 3, women participate in livestock and non-agricultural economic activities, but many are not included in decision-making for these activities.

Figure 2: Men's Roles in Decision-making

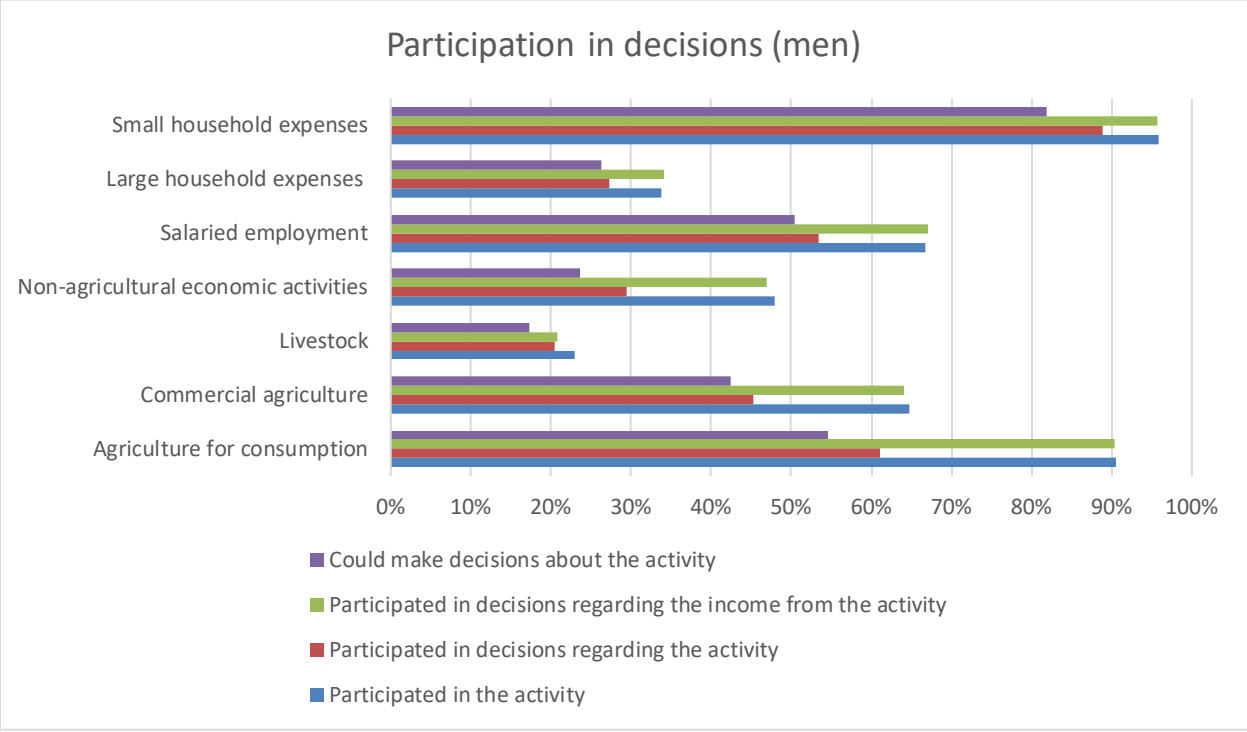
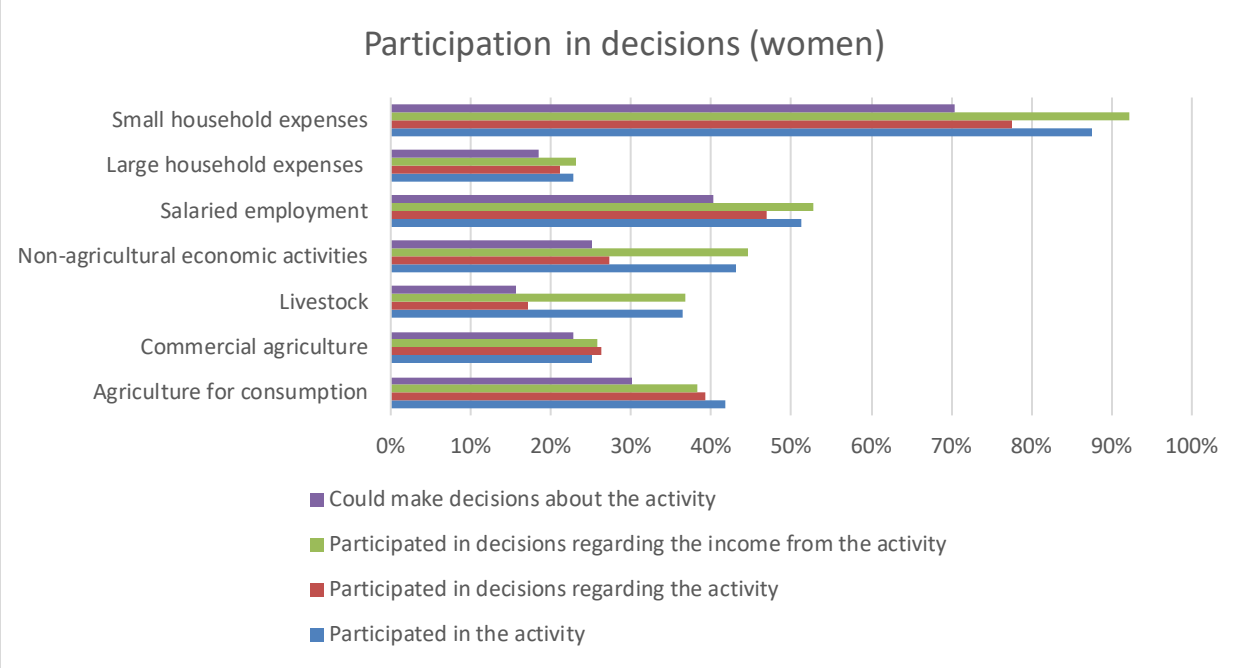


Figure 3: Women's Roles in Decision-Making



Access to Productive Capital and Credit

The A-WEAI includes questions regarding the productive assets owned by the household and who is the owner of each of these productive assets. For the households that have each of the following items, we can see differences between ownership by women and men for some goods such as non-mechanized and mechanized farm equipment, household goods, and minor species (Table 8). The data represents both those that said they were the primary owner as well those that said they have joint ownership.

Table 8: Ownership (for households that have each asset)

Ownership of the following:	Women	Men
Non-mechanized farm equipment	34%	90%
House or other buildings	63%	76%
Cell phone, computer, tablet	55%	64%
Agricultural land (plots / lots)	40%	60%
Large durable consumer goods (refrigerator, TV, sofa)	49%	52%
Small durable consumer goods (radio, kitchen utensils)	82%	50%
Mechanized Farm Equipment	9%	41%
Eggs, seeds, etc.	60%	39%
Minor Animals (Chickens, hens, etc.)	76%	36%
Extensive livestock (cows, cattle)	11%	15%
Small Cattle (goats, pigs, sheep)	18%	13%
Non-agricultural machinery for business (ex. sewing machine)	7%	4%
Processed foods (such as sale of tortillas, cheese, etc.)	2%	2%

For access to credit, the question posed was, if they wanted, could they (or someone in their home) borrow money in cash or in kind from a range of sources. In total, 20% of the women interviewed and 15% of the men did not feel like they could ask for credit. For those that mentioned that they could get credit, the most common source is loans from friends or relatives followed by non-governmental organizations (Table 9). As shown in Table 9, men report better access to credit from NGOs and formal and informal lenders.

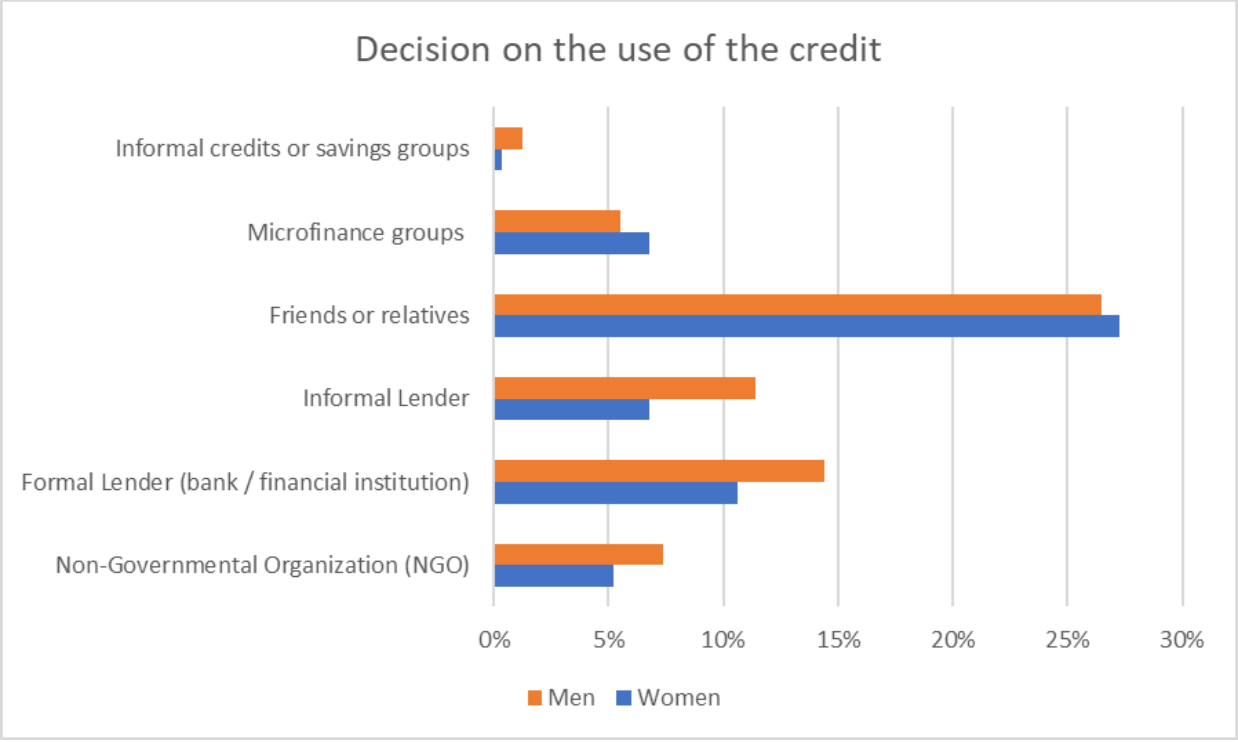
Table 9: Source of Credit obtained by Men and Women

Source of Credit	Women	Men
Non-Governmental Organization (NGO)	58%	69%***
Formal Lender (bank / financial institution)	52%	63%***
Informal Lender	40%	51%***
Friends or relatives	64%	69%
Microfinance groups	33%	32%
Informal credits or savings groups	17%	22%

*Chi^2 results: * P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001*

For those that asked for credit in the previous year, it is more common for men to make these decisions except in the case of loans from microfinance-based groups or from friends or relatives (Figure 4).

Figure 4: Decision-making on use of Credit



Time Use

The A-WEAI includes questions regarding the activities of women and men in the last 24 hours to better understand how many hours they are working and how many hours they have for rest or leisure. Each activity is organized between work or other activities to calculate the hours worked during 24 hours. This includes wage and salary employment, work in a self-owned business, farming, construction, shopping/getting services, fishing, weaving/sewing, textile care, cooking, domestic work, caring for children/adults/elderly, commuting, and traveling. The A-WEAI defines "time poverty" if a person is working more than 10.5 hours a day. Using the information obtained, Figure 5 shows that on average, women in the sample are working longer hours than men with nearly half of the women and more than a third of the men classified as "time poor." Controlling for whether this workload was a representative day or not according to the respondents, the A-WEAI result did not change significantly (see Figure 6). As mentioned, a greater percentage of women than men are working more than 10.5 hours a day. Including both paid and non-paid work, Figure showns that women are working more in activities that do not generate income directly (as a homemaker, childcare, etc.).

Figure 5: Time poverty

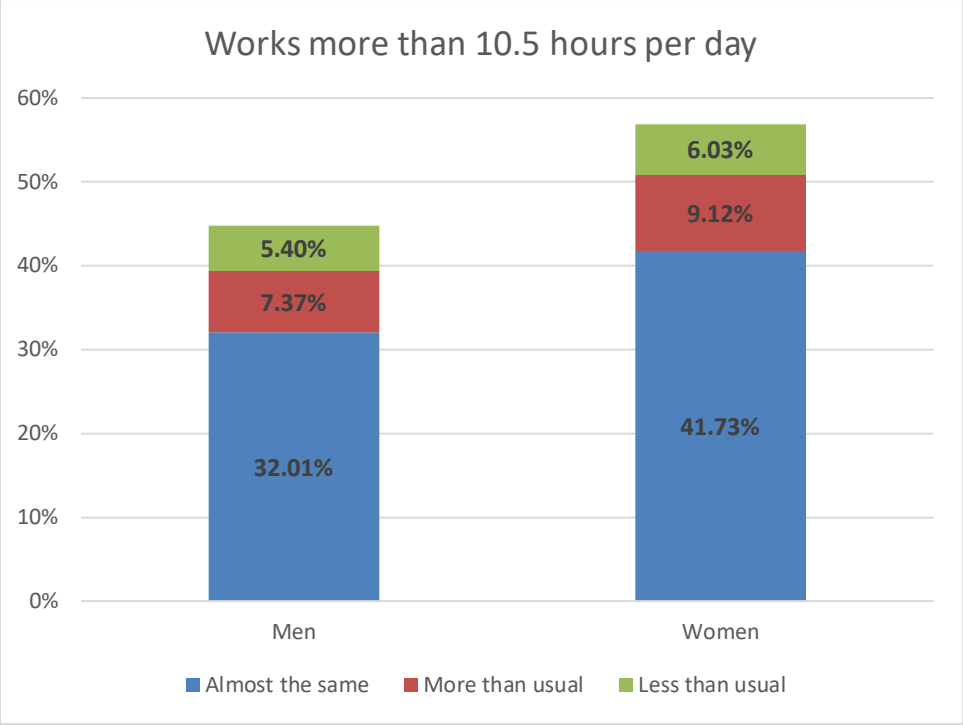
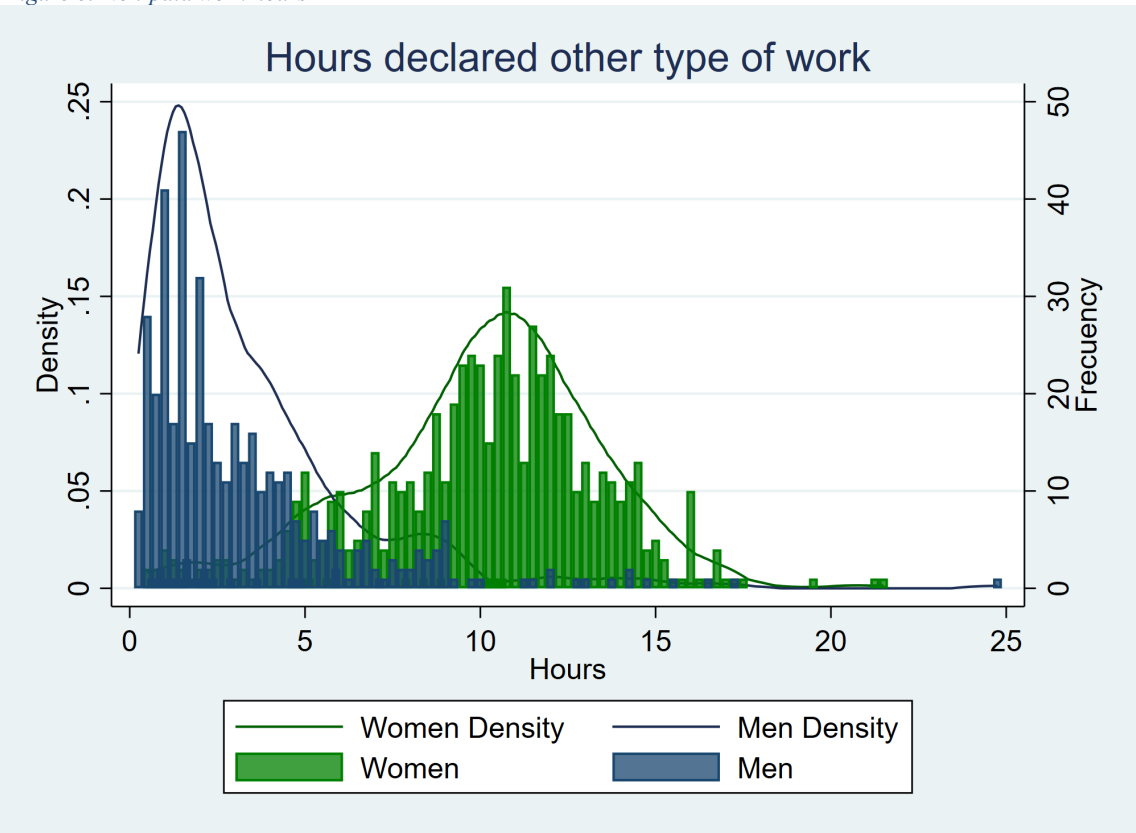


Figure 6: Non-paid work hours



Group Membership

The final category of the A-WEAI collects information on group membership for men and women. As shown in Table 10, religious groups were most common followed by water user groups. Group membership is more common for men than for women in all groups with the exception of religious groups.

Table 10: Group Membership (Percentage of women and men interviewed that are members)

Type of Group	Women	Men
Religious groups	34.78%	29.14%
Water user groups	4.02%	9.89%
Credit or microfinance groups	3.86%	6.65%
Other groups (not in other categories)	5.26%	7.55%
Forest resources user group	0.93%	3.06%
Agriculture/Livestock/Fisher group (including market groups)	0.62%	4.14%
Civic or charity groups	0.15%	0.72%
Mutual aid or insurance groups (including funeral societies)	0.15%	0.36%
Trade group or business association	0.00%	0.18%

A-WEAI

The construction of the A-WEAI depends on the factors as noted above and aggregates the information collected for each of the five domains in a single indicator. The A-WEAI is composed of two sub-indices: the sub-index of the five domains of empowerment (5DE), which measures the empowerment of women in the five domains of empowerment described above, and the sub-index of gender parity (GPI), which measures the relative empowerment of women to men within the same household. As shown in Table 12, the 5DE score of 0.74 mirrors the results found in Ocotepeque and Copan in Western Honduras (Dietz, et al., 2018) and that of a Feed the Future (FTF) sample of 3,326 households in Western Honduras with a 5DE score of 0.74 (Malapit et al., 2014). The results estimate that 66% of women in the sample are disempowered. This finding is comparable to the 61.2% of women that were disempowered in the Dietz, et al. (2018) sample and 68.5% in the Feed the Future sample (Malapit et al., 2014).

To assess whether women are more disempowered than men in the same household, the GPI measures the inequality between men and women in dual-headed households. In our sample, only 63% of women have parity with men in the same household and while this is greater than the results for the previous studies in Honduras, it is very similar to the results from the A-WEAI in Uganda and Bangladesh (Malapit, et al, 2015). The average empowerment gap for these women is 0.26, similar to the results of Dietz, et al. (2018) with 0.27. The overall A-WEAI score of 0.76 also closely mirrors the score of Dietz et al (2018) with a score of 0.75 and the FTF sample in western Honduras with a score of 0.75 (Malapit, et al. 2014).

Table 11: A-WEAI score and women's empowerment status

Indicator	Women	Men
N (number of observations)	306	378
5DE Score	0.74	0.79
Disempowerment Score (1-5DE)	0.26	0.21
% achieving empowerment (empowered headcount)	34%	40%
% not achieving empowerment (disempowered headcount)	66%	60%
Mean 5DE score for not yet empowered (average adequacy score)	0.61	0.65
Mean disempowerment score (1-5DE) for not yet empowered (average inadequacy score)	0.39	0.35
Gender Parity Index (GPI)	0.91	
N (number of dual-adult households)	230	
% women achieving parity (1-HGPI)	63%	
% women not achieving parity (HGPI)	37%	
Average empowerment gap (IGPI)	0.26	
A-WEAI score	0.76	

It would be interesting to see how the results are different for dual-headed and female-only household. Table 12 shows this disaggregation. Unfortunately, given the small sample of women-headed households that have all necessary indicators, it is not feasible to construct the full A-WEAI disaggregated by household head. The results in Table 12 show that women in dual-headed households are more time-poor, have less control over the income, and have less input on productive decisions although the sample size for this indicator was limited. These results may reflect the different uses of time for women that are part of a dual-headed household as they may have to cook more or do additional household chores. For comparisons between total men and women, the differences between control over use of income, ability to make production decisions, and time use are all statistically significant as shown in the final column. For the comparison between types of households, only time use appears to be statistically significant (as shown in the first column) likely due to the reduced sample size for those comparisons.

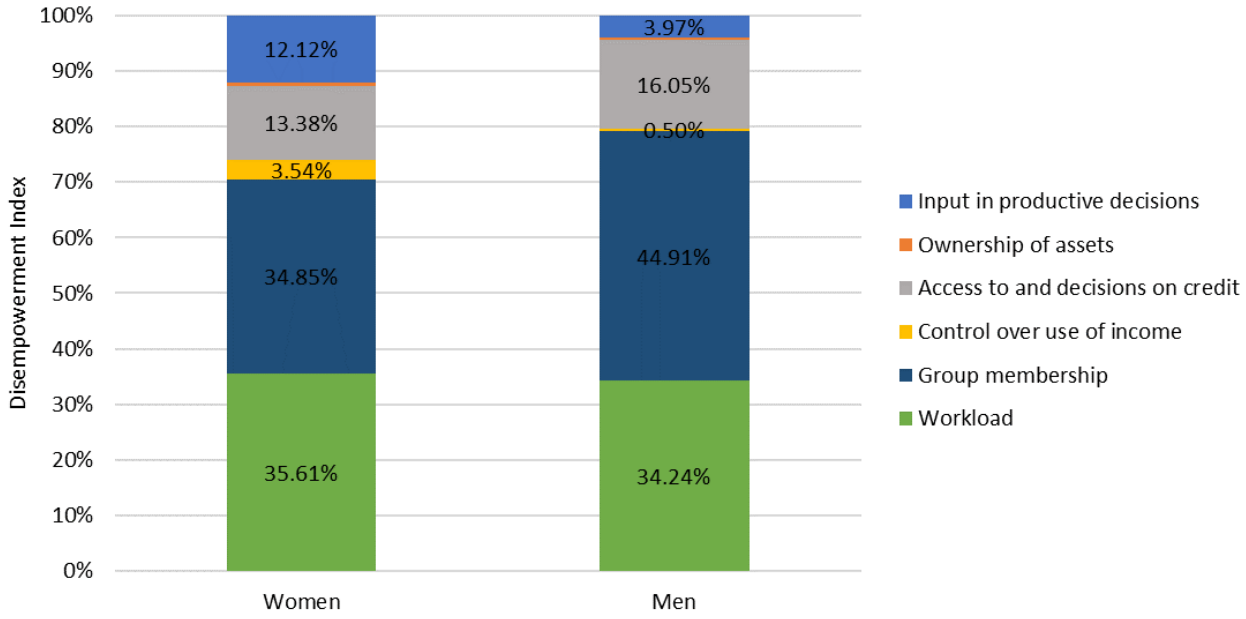
Table 12: Adequacy rates disaggregated by type of household head

	Women			Total Men
	Single-headed households	Dual- headed households	Total Women	
Ownership of assets	100.00	98.39	98.59	99.27
N	*82*	*549*	*640*	*549*
Access to and decisions about credit	36.14	37.41	37.25	38.49
N	*83*	*564*	*647*	*556*
Control over use of income	97.26	91.17	91.92	99.45***
N	*73*	*521*	*594*	*547*
Productive decisions	91.67	82.83	83.17	95.29***
N	*12*	*297*	*309*	*382*
Group membership	34.94	40.78	40.03	39.39
N	*83*	*564*	*647*	*556*
Work <10.5 hours per day	53.01*	41.67	43.12	55.22***
N	*83*	*564*	*647*	*556*

** P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001*

-If we evaluate the particular indicators that contribute most to disempowerment for both women and men in the sample, we find that high workload and low group membership are strong drivers. As shown in Figure 7, these indicators are followed by the ability to make credit decisions and the ability to have input on productive decisions.

Figure 7: Contribution of the Indicators to the Disempowerment Score



4. CONCLUSIONS

This study has obtained information on a range of topics associated with food security and nutrition, gender, and water access in selected villages of Honduras. The data collection prioritized a set of communities of interest to local Civil Society Organizations to guide their work. Between communities, there are differences in the level of coverage for water systems, government services, and active groups in the communities. In general, there is a very high level of poverty in these households and only about half of the women in these villages are receiving the minimum dietary diversity. The calculation of the incidence and depth of food insecurity in households showed that the majority of households have experienced food insecurity within the past 30 days. Of the households sampled, 71% have changed their diets due to a lack of resources and 65% have worried that would not have enough food in the last 30 days.

Finally, the results of A-WEAI found that 66% of women are disempowered (which is very similar to the results reported from two large studies in Western Honduras). Disempowerment is primarily driven by workload and lack of group membership for both women and men but also the ability of women to

participate in credit and productive decisions. For example, although women participate in livestock and non-agricultural economic activities, many do not have the power to make decisions in these activities. Perhaps unsurprisingly, a greater number of women are classified as "time poor" because they work more than 10.5 hours per day and much of this work is unpaid work. While the results are not representative at the departamental or municipality level, they provide some insight into the constraints that exist for these rural communities. These constraints include access to safe drinking water, sanitiation, adequate diets and income opportunities.

REFERENCES

Alkire, S., and R. Meinzen-Dick. 2013. "The Women's Empowerment in Agriculture Index." World Development 52: 71–91.

Coates, Jennifer, Anne Swindale and Paula Bilinsky. 2007. Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide (v. 3). Washington, D.C.: FHI 360/FANTA.

Dietz ,Thomas; Chong, Andrea Estrella; Font Gilabert, Paulino & Grabs, Hanina. 2018. "Women's empowerment in rural Honduras and its determinants: insights from coffee communities in Ocotepeque and Copan" *Development in Practice, 28:1*, 33-50, DOI: 10.1080/09614524.2018.1402862

FAOSTAT. 2020. Food and Agriculture Data. Available at: http://www.fao.org/faostat/en/#home. Retrieved on 06/01/2020.

INE. Instituto Nacional de Estadisticas Honduras. https://www.ine.gob.hn/V3/. Tegucigalpa. Honduras

Malapit, H. J., C. Kovarik, K. Sproule, R. Meinzen-Dick, and A. R. Quisumbing. 2015. "Instructional Guide on the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI)." IFPRI: http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129719/filename/129930.pdf

Malapit, Hazel J.; Pinkstaff, Crossley; Sproule, Kathryn; Kovarik, Chiara; Quisumbing, Agnes R.; and Meinzen-Dick, Ruth Suseela. 2017. The Abbreviated Women's Empowerment in Agriculture Index (A-WEAI). IFPRI Discussion Paper 1647. Washington, D.C. http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/131231

Malapit, Hazel J.; Sproule, Kathryn; Kovarik, Chiara; Meinzen-Dick, Ruth Suseela; Quisumbing, Agnes R.; Ramzan, Farzana; Hogue, Emily and Alkire, Sabina. 2014. Measuring progress toward empowerment: Women's empowerment in agriculture index: Baseline report. Washington, D.C.: International Food Policy Research Institute (IFPRI). http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/128190

ALL IFPRI DISCUSSION PAPERS

All discussion papers are available **here**

They can be downloaded free of charge

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
www.ifpri.org

IFPRI HEADQUARTERS
1201 Eye Street, NW
Washington, DC 20005 USA
Tel.: +1-202-862-5600
Fax: +1-202-862-5606
Email: ifpri@cgiar.org