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Roll up Your Sleeves: Why Is It Important to Highlight Gender in Agriculture?

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Abstract

Gender and poverty combine to put a burden on the status of women farm workers. On top of that, women's contribution in agriculture, albeit important to the overall agricultural chain, is commonly overlooked. This study looked into the time-use of women in agriculture, relative to men in the largest rice producing community in the Philippines. The methodology included key informant interviews of nine women, a survey questionnaire to a total of 159 individuals form the farming household, and a time-motion study of women's work in raising livestock during a whole day. The data revealed that women are involved in all aspects of the agricultural production although there is a differentiation in the time allocation between the men and female farmers. Women worked 2.6 hours per day on the average compared with 6 hours per day for men. Statistical analysis also showed that women's work in the home is not lessened even as she devotes more time on the field. Hence, she experiences double burden. More than half of the women (60%) stated that they do not own the land, in contrast to only 29.6% among the men. The study supports that gender matters and males dominate on decisions regarding crop production (usually a man's decision), usage of money earned from activities, and in the determination of the purpose of livestock. However, women provide labor and take direction. From this perspective perspective, this study highlights the role of women and their contribution to agriculture, ultimately supporting the need for agricultural statistics to include gender and not be gender-blind.

Keywords: Women in Agriculture, Gender and Agriculture, Time-Use Allocation, Double Burden, Farmers in the Philippines

Introduction

In developing countries, the agricultural sector employs majority of the population in the rural areas and as such, is one of the major employers of the rural poor. Based on global statistics, 79% of women in developing countries, in particular, and 48% of women in the world state, in general, are in agriculture as their primary economic livelihood. It is noteworthy to mention that women are responsible for the production of 60% to 80% of the world's agricultural produce (Doss, 2014). Women's role in agriculture is undeniable as they are at the forefront in providing food for the family and in fighting against hunger and poverty (da Silva, 2013). This is reiterated by Jones (2010) in emphasizing that in developing countries, food security is dependent upon the food production activities of women.

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Agriculture is generally classified as men's activity but a closer look at it shows that it is women's business and a part of their labor-related endeavors as well. This reflects Habib's (2012) statement that, "women do not get recognition for their contribution but if asked specifically and inductively, nobody denies the roles they play and the responsibilities they fulfill." The two key assumptions of institutions: gender-neutrality and exclusivity (meaning a change in one will not affect the others) should be challenged (Kabeer and Subramahnian, 1996). Men's work appears to be more obvious since their labor is associated with commercial purposes, while women's work is often for subsistence purposes. According to Beneria and Sen (1986), statistics are blind to the contribution of women because subsistence farming is commonly under the radar of the government. Hence, the gender perspective in agriculture becomes an ethics issue.

Agriculture is not just about yields. It is not merely about which seed variety renders higher returns. Agriculture is economics, politics, sociology and science rolled into one. Despite this, 90-95% of the total research on agriculture focuses only on the science aspect of agriculture (Kay, 2014) notwithstanding that the other facets of agriculture are equally important for the world to pursue a sustainable and just agricultural system.

This research takes on the call for applying a social science approach to agriculture in order to make agricultural work gender sensitive and ethical. This research aims to answer the question: "Why is it important to highlight gender in agriculture?" This study looked at the time-use of women in agriculture using a time-motion study and survey of both men and women farmers in the largest rice producer in the Philippines, Nueva Vizcaya, in Central Luzon, Philippines. The approach taken is to shed light on why should women's work in agriculture should be valued and monetized. As is, statistics in the Philippines are blind towards women's contribution to agriculture.

The objectives of the study were to determine the time use allocation of women and men in agriculture; and to look into how agricultural work affects gender relations within the household.

Theoretical Framework

To enhance the understanding of gender in agriculture, the *Social Relations Theory* of Naila Kabeer was used. This is a socio-economic theory that espouses the following concepts: there is gender blindness of certain institutions due to false assumptions or unrecognized roles of women; that social relations between gender is a source of inequality; and that gender is integral in understanding and attaining development and well-being. On the other hand, the *Social Role Theory* of Eagly (1990) will explain why there is a gender segregation in agriculture and why women's work is rendered invisible.

Kabeer emphasizes the role of agency in that gender roles, being social constructions, are malleable. This theory was further developed by Eagly to take into consideration the historical roots of gender segregation in labor (Eagly, 1987). There is a need to challenge exiting power, resource and responsibility allocations between genders. Eagly calls for a need to create a more gender-sensitive environment in order to grant women a chance to develop themselves.

The production and reproduction of gender roles are affected by three factors: (1) rational or economic – this argument relies heavily on comparative advantage where a particular gender has more capacity to work in a specific task, e.g. women are seen in child rearing while men are more able to do heavy work; (2) socio-cultural – where gender roles and expectations are ingrained at the micro-level though the socialization process and reinforced at the macro-level through social

relations; and lastly, (3) biological/physical – where the supposed physical strength of the men makes them preferable over women.

At the micro-level, gender roles are created, produced and affirmed through an aversion to role conflict where acting against one's gender role is not encouraged. People who act outside the scope of their supposed role are perceived unfavorably (Heilman, et. al., 2004), and from this notion, gender stereotypes are reinforced. It is not surprising that women prefer to report a "cleaner" version of their participation in labor and activities where they brush off their contributions as secondary and complementary compared to that of their husband (Habib, 2012; West and Zimmerman, 2007. All of these factors interplay to formulate inequality between men and women in terms of responsibilities (men: productive, women: reproductive), resources (whether material like land or non-material like time), and power (whether material like power or non-material like decision-making power) with the inequality tending to favor men. As a result, if institutions continue to be gender-blind, then we risk facing costs due to the following concerns: efficiency (women are as productive as men), welfare (lack of gender-targeted poverty alleviation initiatives will inadvertently fail), and equity (women will continue to be subordinate to men since their contributions are not recognized, creating an impression of dependency on men).

Methodology

This study involved a rarely used methodology in women's research, a time-motion study in order to look at the specific tasks and time allocation of women. This study also used survey questionnaires to look at issues on gender relations in agriculture and how this affects the household decision making processes.

The target site for the study is referenced as the *rice bowl* of the Philippines. It is the major and top producer of rice in the country. The study was done in Nueva Ecija, the largest province in Central Luzon." Out of 552,104 areas of farmlands in Central Luzon, 196,390 of these farmlands are located in Nueva Ecija (2002 Census of Agriculture as cited in PSA, 2004).

The key informant interview was conducted among women farmers/farm workers. In addition, a survey questionnaire was given to 159 individuals in 3 barangays. For the quantitative part of this study, self-reported data was collected from survey questionnaires**,** and multi-stage sampling was used. The first stage was cluster sampling where groups of people living in a certain barangay were chosen because of geographical location (i.e, agricultural barangays). The second stage was still cluster sampling within the selected barangays where a whole population of farmers was surveyed in specific zones (*purok*).

Unit of Analysis

Feminist economic theory posits that households must not be treated as unitary actors because of the risk of masking possible inequality within the household that arises from treating the household as an individual (Sen, 2010).

In this study, the unit of analysis consisted of the individuals (primarily adult women and men within the household) for the subject interviews. This was done in order to put special attention on women – to give face to the *sexless and genderless household averages* reported in macro-level economics. Special attention was given to determining household headship and the implications that it had for the household, *viz.*, in employing the survey questionnaire, no prior assumptions were made (e.g. female-headed households are assumed to be poorer than male-headed households). The qualitative survey focused on women and their experiences while the

survey questionnaire focused on the interplay of gender with several other factors like household profit. Informed consent was secured.

The quantitative data were analyzed with the use of IBM SPSS. The qualitative data gathered from interviews were analyzed using coding and memoing. The interviews were fully transcribed for textual analysis. The study was registered with the Research Grants Administration office (RGAO) of the University of the Philippines Manila, and submitted to the Research Ethics Board of the National Institutes of Health which is accredited with the Forum for Ethical Review Committees in Asia and Western Pacific (FERCAP), and is the only duly recognized accrediting ethics body in the Philippines.

Results

The national statistics on wage are gender-disaggregated. However, the statistics on total employment and the contribution of women to the economic production and revenue of rice are not gender-disaggregated. This shows that statistics in agriculture tend to be gender-blind for many factors and variables on agricultural production. Even for the factor on wage, gender-disaggregated data show that males have higher wage than females in rice production (see Table 1).

Table 1: Labor and Production Statistics in the Philippines and Central Luzon on Agricultural Rice Production (latest data, PSA 2016)

Labor and Production Factors	Area	Statistics
Total Employment	National (entire Philippines)	38,651,000 (2014) 38,118,000 (2013)
	Central Luzon (location of target site in the study)	832,000 (2014) 846,000 (2013)
Volume of Production	National (entire Philippines)	18,149,837.78 metric tons (2015)
	Central Luzon	3,304,310.00 metric tons (2015)
Area Harvested for Palay	National (entire Philippines)	4,656,227.14 hectares (2015)
	Central Luzon	699,646.00 hectares (2015

The data also show that agricultural work is dominated by males. However, there is also female work involved, however, this is not accounted in national statistics. Likewise, there is no gender mainstreaming in the statistics of the government on the contribution of women in agriculture.

Table 2 below states the national and target region's (Central Luzon) agricultural statistics. These are the latest data provided by the Bureau of Agricultural Statistics. It is shown that males have higher wages, both nominal and real, compared to females.

Table 2: Agricultural Wage Rates of Farm Workers for Rice Production by Type of Wages, and Gender, 2011

Type of Wage	Gender Disaggregated Data		
	Male	Female	Both Sexes
Nominal Wage	302.70	257.23	296.54
Real Wage	180.15	153.09	176.49

PSA, 2011

Socio-Demographic Profile of the Farmer Respondents

In this study, there was a total of 15 women interviewees, for the qualitative part, and 130 respondents for the survey. In the qualitative interview, eight women respondents could be classified as late middle age (39-58), three to early middle age (19-38), and four as senior citizens (59-78). 6 out of 15 were the head of female-headed households while the rest were part of households identified as male-headed. 4 of 15 women were *de jure* female household heads which means that their spouse was already deceased while 11 out of 15 were married. Out of the 11 married subjects, 2 of 11 were *de facto* female heads signifying that their husbands were working in another place. All the fifteen respondents reported having 2 to 4 members of the household employed or working in agriculture.

The subject interviewees were composed of an aging population while participant observation revealed that females working in the field involved younger girls aged thirteen and above who worked in the field with their parents. Some girls were even using the scythe to manually harvest crops. The target population was identified as relying heavily on different agricultural activities to generate income. Agricultural production is partially mechanized with the recent introduction of harvesters in the area. Other sources of livelihood include sidecar shops, making ice-cream, sewing and selling ready-to-wear clothes, and *sari-sari* stores.

For the survey, there was a total of 158 respondents consisting of both male and female farmers. Agriculture is generally classified as a men's job and in this study, the majority (130 or 82.3%) of the subjects were men while only a few (17.7%) among the 159 participants were women. The agricultural workforce that participated in this survey is an aging population where many of the participants (38.4%) were in middle adulthood (36-50). The youngest participant was 20 years of age while the oldest was 81 years of age. The majority (88.5%) of participants were married. Slightly more than half of the participants (52.9%) were able to go to high school. Only a handful (15.1%) were able to go to college. See Table 3.

Table 3: Socio-Demographic Profile Data of the Respondents (n=159)

Socio-Demographic Profile	**Categories**	**Number**	**Percentage**
Gender	Male	130	82.3%
	Female	28	17.7%
Age ($\bar{x} = 49$)	Mid-adulthood	61	38.4%
	Late Adulthood	60	37.7%
	Early Adulthood	25	15.7%
	Twilight Years	13	8.2%
Civil Status	Married	139	88.5%

	Single	11	7.0%
	Widow(er)	7	4.5%
Educational Attainment	High school	81	52.9%
	Elementary	36	23.5%
	College	24	15.7%
	No Formal Education	11	7.2%
	Vocational	1	0.7%
Employment Status	Self-employed	99	62.3%
	Employed and Has a Business	36	22.6%
	Employed	20	12.6%

Women's Work in Agriculture

Women's work in agriculture consists of harvesting, weeding, sowing, gleaning and raising livestock. However, women's participation in agriculture is more tangible in the following activities: raising livestock, subsistence farming and gleaning (see Table 4).

Table 4: Type of Agriculturally Related Work

Agriculturally related Work	**Response**	**Number**	**Percentage**
Gleaning	Not Applicable	107	78.1%
	Both	11	8.0%
	Female Only	11	8.0%
	Male Only	8	5.8%
Attending to Livestock	Both	69	50.0%
	Male Only	37	26.8%
	Not Applicable	25	18.1%
	Female Only	7	5.1%
Subsistence Farming	Both	56	40.6%
	Not Applicable	42	30.4%
	Male Only	35	25.4%
	Female Only	5	3.6%

Time Use Allocation of Women and Men in Agriculture

Women are involved in all aspects of the agricultural production although there is a differentiation in the time allocation between the men and women farmers. Women worked 2.6 hours per day on the average while men spent 6 hours per day. However, women take up most of the household chores (almost 10 hours) compared to the men. Livestock raising and subsistence farming were also engaged in by the women farmers to augment the income of the family (see Table 5).

Table 5: Hour Allocation between Men and Women Farmers on Various Work

Category	Gender	Mean	Standard Deviation
Work in the farm/ agriculture	Women	2.61	5.70
	Men	6.05	4.81
Household Chores	Women	9.75	4.94
	Men	5.29	5.53

In the participant observation as well as in the subject interviews, the following were women's work in agriculture: weeding, sowing, harvesting and manual drying of yield. Men's work consisted mainly of tilling the soil, operating machines and machineries for agricultural work, and application of pesticides and fertilizers (see Table 6). The data show that there is occupational segregation of task in agriculture where the heavy or manual work is performed by males. The data also show that women's work in agriculture is integral to the entire agricultural process of production such as weeding, sowing and harvesting. Women's work in agriculture is seen as complementary to male's work.

Table 6: Aspects of Agricultural Work between Genders Based on the Qualitative Methodology

Women's Work	Men's Work
Weeding Sowing Harvesting Gleaning Manual drying of seeds Livestock raising Subsistence Farming	Tilling of soil Operating machines and machineries Application of pesticides and fertilizers

It is worth mentioning too, that women are engaged in additional activities to augment family income, such as livestock raising and subsistence farming. Table 7 shows that women spent about 6 hours on raising livestock and 1 hour for subsistence farming. Furthermore, when taken in totality, women devote around 18 hours of work per day, including household and agriculturally-related work. This is shown in Table 8.

Table 7: Other Forms of Livelihood between Genders

Livelihood	Men	Women
Attending to Livestock	4.71	5.52
Subsistence Farming	1.01	1.06

Looking deeper into women's work, statistical analysis shows that there is a direct correlation between hours on agricultural work on the field as well as livestock raising and household chores (alpha =0.01); see Table 7. This points to the fact that women's work in the

home is not lessened, even as she devotes more time on the field. Hence, she experiences a double burden.

Table 8: Double Burden on Women

Category	Correlation	Hours for fieldwork (Women)	Hours for livestock (Women)	Hours for household chores (Women)
Hours for fieldwork (Women)	Pearson Correlation	1	.867**	.534**
	Sig. (2-tailed)		.000	.000
	N	133	133	133
Hours for livestock (Women)	Pearson Correlation	.867**	1	.500**
	Sig. (2-tailed)	.000		.000
	N	133	136	134
Hours for household chores (Women)	Pearson Correlation	.534**	.500**	1
	Sig. (2-tailed)	.000	.000	
	N	133	134	134
**. Correlation is significant at the 0.01 level (2-tailed).				

With respect to time allocation, particularly for those who raise livestock, women start to work at 5:30 in the morning and remain active until 8:30 or later in the evening. Data on time-use is important because there is still a global trend of unpaid work among women even in modern times (Kizilirmak and Memis, 2009). See Table 9 for women in agriculture who raise livestock.

Table 9. Observed Time-Use of Women in Agriculture who Raise Livestock (gray for unpaid work, and white for non-work)

Time	Activity
5:30 – 6:00 AM	Sweep the backyard
6:00 – 6:30 AM	Lift the cover of the pigpen
6:30 – 7:00 AM	Prepare breakfast
7:00 – 7:30 AM	Feed the Chickens
7:30 – 8:30 AM	Feed the Pigs
8:30 – 9:30 AM	Have breakfast
9:30 – 10:00 AM	Clean the pigpen
10:00 – 11:00 AM	Give bath to the livestock
11:00 – 11:30 AM	Take a bath
11:30 – 12:00 NN	Prepare lunch
12:00 – 1:00 PM	Have lunch
1:00 – 2:00 PM	Rest
2:00 – 3:30 PM	Household chores

3:30 – 4:30 PM	Give bath to the livestock
4:30 – 5:00 PM	Feed the pigs
5:00 – 5:30 PM	Feed the chickens
5:30 – 6:00 PM	Rest
6:00 – 6:30 PM	Prepare dinner
6:30 – 7:30 PM	Have dinner
7:30 – 8:00 PM	Put the cover back to the pigpen
8:00 – 8:30 PM	Clean self/freshen up
8:30 onwards	Rest/Sleep

Ownership of Productive Capital

To look deeper into the relationship between gender and asset ownership, this study looked into ownership of agricultural land. More men (24.6%) inherited their agricultural land compared to women (24%). In addition, many men (32.8%) bought their land and the ownership is theirs alone. More than half of the women (60%) stated that they do not own the land while in contrast, in contrast to only 29.6% among the men. The data show that men generally own the land. See Table 10.

Table 10: Land Ownership between Genders

Land ownership	Categories	Gender			
		Female		Male	
		Frequency	Percentage	Frequency	Percentage
Land Ownership	Yes	10	40.0%	85	70.2%
	No	15	60.0%	36	29.8%
Type of Acquisition	Not Applicable	15	60.0%	35	28.7%
	I bought it, only I own it	1	4.0%	40	32.8%
	Inheritance from parents	6	24.0%	30	24.6%
	Inheritance from parents of my spouse	1	4.0%	8	6.6%
	Inheritance from parents, shares with siblings	0	0.0%	6	4.9%
	Currently incapacitated spouse	1	4.0%	1	0.8%
	Inheritance from parents of my spouse, shares with her/his siblings	0	0.0%	2	1.6%
	We bought it, joint ownership	1	4.0%	0	0.0%

Decision-Making and Budgeting

In general, both women and men take part in the decision-making processes within the household. However, the contribution to decision-making varies across various activities.
If the decisions are related to crop production, it is up to the men's discretion. On the other hand, decisions related to the day-to-day household operations and social cares are women's domain. At

the outset, the women decide on the livestock, but as the enterprise grows, decision making shifts to the men.

It also appears that women (77.8%) are more inclined to prioritize education than men (58.2%). Women also put priority to food and daily expenditures compared to the men. On the other hand, more men (75.4%) prioritize paying creditors. See Table 11.

Table 11: Budget Priorities Between Men and Women Farmers

Priority Rank	Categories	Gender			
		Female		Male	
		Frequenc y	%	Frequency	Percentage
First priority	Education	21	77.8%	71	58.2%
Second priority	Food and daily expenditures	21	77.8%	71	58.2%
Third priority	Payback creditors	17	63.0%	92	75.4%
Last priority	Entertainment	12	44.4%	61	50.4%

In looking at statistical associations, gender is significantly and moderately associated to: (1) usage of money earned from agricultural activities; (2) determining the purpose of livestock; and (3) matters concerning crop production. This shows that gender matters on decisions regarding crop production (usually a men's decision), usage of money earned from activities, and determining the purpose of the livestock. See Table 12.

Table 12: Components of Decision Making Contribution within the Household

Decision Making Areas	Fisher's Exact Test	Monte Carlo Sig. (2-sided)	Cramer's V
Usage of borrowed resources	8.511	0.44	-
Decision to borrow resources	9.276	0.19	-
Matters concerning crop production	9.733	0.038	0.306 (Moderate)
Usage of money earned from agricultural activities	9.983	0.019	0.306 (Moderate)
Livestock purpose	9.390	0.019	0.310 (Moderate)
Non-agricultural business (if there is any)	4.150	.226	
Personal income	5.584	0.132	-
Considerable household expenditures	8.223	0.57	-
Small household expenditures	4.542	0.189	-

Discussion

Time Allocation Across Activities: Double Burden on Women

In general, women are tasked to do 'domestic' work while men are tasked to do 'external' (often economic) tasks. Since women are also increasingly participating in economic activities, one would expect that their time doing domestic unpaid work will be shortened. However, this is not the case based on this study. In fact, the data show that women experience a double burden; as hour allocation for agricultural work increases, their hour allocation in doing unpaid work also increases. This is similar to the results of the study by Rajamanthrie *et al* (2015) specific to Sri Lankan agriculture. The authors pointed out that women occupy and perform varied roles, whether paid or unpaid. The authors documented that women in agriculture had poor satisfaction with domestic work and in their involvement with farm technology.

Furthermore, women engage in non-agricultural work such as subsistence farming and raising livestock. There could be a triple burden that arises from three domains: agricultural work, non-agricultural work to augment income, and domestic work. Women are still tied to their reproductive responsibilities even if they do participate in the active labor force (Kizilirmak and Memis, 2009; West and Zimmerman, 2007). Subject interviews revealed that the women were satisfied with this arrangement because they see juggling several activities as their responsibility. Both the men and the women see this arrangement as "fair" and "normal" and in reference to culturally normative social and gender roles (West and Zimmerman, 2007). In a similar study in Thailand, it was cited that there are about 20 million farm workers in Thailand of whom 47 per cent are women, and these women are involved in all steps of agriculture from planting to harvesting (Waikakul, 1995). In India, women's labour in agriculture is also growing, representing about 43% of the agricultural labor force. Komal (2014) documented the various problems faced by the women labour in Indian agriculture due to both multiple burdens and lack of agricultural technology. This was again reiterated in the study of Gulcubuk (2010) in Turkey with the following findings: women take part in every stage of agricultural production, have multiple roles within and outside the family, and the use, distribution, and management of the income created in the family is unjust.

The prevalence of gender gap in time allocation for household work is very problematic due to three main reasons: (1) it impedes gender equality by helping to reinforce gender roles and expectations; (2) it undermines the human rights of women; and lastly, (3) it deprives the women of empowerment opportunities, especially economic and political empowerment by making them miss work opportunities and participation in public life (OECD, 2014).

Agriculture-Related Economic Activity and its Effects on the Relationships within the Household

By tradition, women do not take part in economic activities in the Philippines. In the instance that women do have productive work (e.g. livestock enterprise, *sari-sari* store, hired work), their work is considered as a secondary source of income. True enough, the phrasing of the answers: "so I could help my husband" speaks a lot about this arrangement where women see their work to be secondary to those of their husband.

Productive work is a double-edged sword, do too little and you are seen as a liability; do too much and you are seen as a little more than a slave (O'Brian, 2003a). In short, partaking in productive work or economic activities does not guarantee that women will be treated on the same level as men. Whyte (as cited in O'Brian, 2003a) contends that the social status of women can only be elevated if they have more control over the fruits of their labor and/or more control over assets

and productive capital. Whyte assessed women in central Luzon, Philippines and noted that women do not have major control of the fruits of their labor. de Brauw *et al* (2008), pointed out the importance of equal access to land, credit and economic development, as a contributory factor to the success women farmers to grow and succeed, and underscored the positive contribution of women to agriculture. In net, their research promoted that policies and development strategies be inclusive of women farmers.

Women's Status in the Home

Women's status in the home is not wholly reliant on their contribution to the overall income of the household. In fact, literature suggests that the contributions of the women in the overall household income do not affect their status at all (Ember and Levinson as cited in Margolis, 2003).

This study supports this claim and it contextualizes it by supporting the notion that women's contribution to the overall household income does not affect their status in the home because it is unrecognized and unappreciated. For instance, the data showed that the male farmers had more control over matters concerning crop production, usage of money earned from agricultural produce, and livestock purposes. In livestock raising, the women take more responsibility at the outset, but when the enterprise grows, the men come in and take charge of the business endeavor. The data also showed that despite lack of decision making in the household, women were burdened and prioritized the needs of the family such as education of children, food and daily expenditures, as well as paying creditors while men were more concerned about entertainment activities such as accommodating guests.

Difference in Wage Rates and Job Opportunities

Although the statistics show that women in Central Luzon who take part in rice production receive the most remuneration (PSA, 2014), the women are still paid lower than men, sometimes, the women even work for free since they see their work as an extension of their household responsibilities. The apparent marginalization of women in agricultural work opportunities forces them to seek employment elsewhere and when they do find other work, it is commonly a replication of what they do in the household like care work and household chores.

Women are often limited to manual tasks and subsistence tasks like manual harvesting, gleaning, livestock raising and subsistence farming. Men have more opportunities to choose the type of work that they will do and they have more chances to be hired because of the preference of the landlords to hire male farmhands than female farm hands. In this context, even though men and women can be equally productive, women will continue to receive less wage since women's work is seen as merely complementary to that of the men (Beneria and Sen, 1986). Occupational segregation based on gender is, in part, a contributor to the wage rate difference between men and women. In viewing the women's work as secondary, and to an extent complementary, the wage rate difference between the men and the women is being justified (Beneria and Sen, 1986; Kauppinen and Aaltio, 2003). It is important that women farmers build financial capital to empower themselves and their families, as shown among female farmers in Arkansas engaged in organic farming (Sumner, 2005). Among these Arkansas women farmers, the study showed that as more women are engaged in agriculture, their responsibilities expand including leadership and decision making. Among urban women farmers in Nigeria, Adedayo and Tunde (2013) found that women who lacked credit facilities, restricted accessibility to land, and lack of farm input, faced biggest challenges against increased production by women.

Cheap (or Unpaid) Labor

According to Beneria and Sen (1986), unpaid family labor is especially predominant in Asian countries where hiring laborers in agriculture becomes a family business. This is particularly true in cases of the percentage-based farmers where only the husband is technically hired but the family, especially the wife, helps him to do his work for free since only the husband is being paid. This is also the case if the farm owner cannot afford to spare money to hire other workers.

If gender analysis is not used in this situation, there is a risk in justifying this work arrangement. Women help their hired husbands and they are not paid for this. In fact, the representation of undervaluation comes when an outsider asks the woman if she works and she answers that she is "not working" when in fact she does unpaid work and uncompensated labor.

Conclusion

This study has focused on the time-use allocation and types of work between women and men farmers in central Luzon engaged in rice production. The major findings of this study are that women participate in vital agricultural production processes, but this agricultural work is unrecognized and uncompensated, and if paid, women receive lower wages compared to males. Women face a triple burden: agricultural work, non-agricultural work and domestic work, and all combined, these make women's time use allocation larger than that of the men. Despite the contribution of women in agriculture and the domestic sphere, decision making on major household issues is still controlled by men. Likewise, national statistics on agricultural productivity remains to be largely gender blind with the absence of gender-disaggregated data, except for the wage rate. However, agricultural productivity leaves out women's contribution possibly because women's work is not recognized as "productive", or is considered 'complementary or assistance given to the husband", or is totally unpaid.

It is important that women's work in agriculture be given due recognition. This gives them bargaining power in the public and domestic spheres. As has been shown in this study, women invest in human development as they are more likely to focus on education and other long-term investments. Continuing to underreport women's contribution stunts women's fight for gender emancipation since the non-recognition of their contribution relegates them as dependents of the men when in fact they contribute as much as (sometimes more) than men in the whole agricultural production chain.

The issues of gender sensitivity, social science approach to understanding agricultural value, and the role of women in food security are all ethical issues that must be considered.

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