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Exploring Spatial Gender Disparities in Smallholder Agricultural Productivity in Cameroon.

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Abstract

Gender differentials in agricultural productivity are likely to vary considerably between different agroecological zones. A thorough understanding of the location and causes of gender disparities are needed in order to formulate effective policies for addressing the gap. Exemplified on Cameroonian smallholder plot-level data, we examine the determinants of gender disparities in productivity separately for three agroecological regions e.g., Sahel, Western Highlands, and Bimodal Rainfall Humid Forest. We account for selectivity bias, employ an extended Oaxaca-Blinder decomposition, and a distributional decomposition using percentile weighted regressions. We found that gender disparities differ across agroecological zones and gender indicators: they are more acute in the arid Sahel for almost all plot headships, followed by the Western Highlands, while productivity is biased toward all women in the Bimodal Rainfall Humid Forest. We also found that gender disparities are the result of unobserved factors in all regions and plot headships. Women's structural disadvantage drives gender differences in returns to inputs with contributing factors differing by gender indicator and region. In all regions and plots, the endowment effect is larger for the poorest and wealthiest farmers and its drivers are neither gender-neutral nor the same in all agroecological areas. Gender and regional differences in the results suggest that policies should be gender- and region-specific.

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I. Introduction

While the role of African smallholder agriculture remains debated (see e.g., Collier & Dercon, 2014), substantial evidence exists that its development is desirable.1 The sector is dominated by women who are responsible for 80% of food production and 60% of cash-crop production. Agriculture remains, however, a sector with fundamental differences between men's and women's productivity as a result of women's unequal access to productive resources (Christiaensen et al., 2011). Gender disparities in agricultural productivity have been well documented (Kilic et al., 2015; Aguilar et al. 2015; Oseni et al. 2015; Slavchevska, 2015; Ali et al. 2016). However, in order to formulate policies effective in reducing gender-based disparities in agricultural productivity, a thorough understanding of locations and underlying causes is needed.

In fact, in Africa, the smallholder farming environment is essentially heterogeneous (for example, diversity in environmental, demographic, and socioeconomic factors) (Vanlauwe et al. (2014). Such factors might aggravate the consequences of the lower productivity of women-headed plots largely as a result of limited access to key productive assets (land, labor, technology, credit, and extension services, e.g.; Doss, 2018). In Cameroon, for example, smallholder farmers operate in agroecological regions[2] that differ in climate variability, soil quality, water availability, access to land and land use, socioeconomic factors, cultural norms, etc. These features potentially generate gaps in crop yields by agroecological region. In addition, gendered agricultural productivity gaps might be found in those specific agroecological characteristics. That is, agroecological conditions might be related to gendered access to inputs (land and labor), stratification of production systems, patterns of cultivation and marketing, and so on (Djurfeldt et al., 2013; Slavchevska,

1 For example, small-scale farming in Africa is an engine for growth, poverty reduction, and food security (in Africa, food insecurity is largely a rural concern; see Brummet et al., 2011).

[2] The ten regions of Cameroon are adamaoua, centre, east, far-north, littoral, north, north-west, south, south-west, and west. The five officially delineated agroecological zones are the Bimodal Rainfall Humid Forest, High Guinea Savannah, Monomodal Rainfall Humid Forest, Sahel, and Western Highlands. The range of environmental factors and socioeconomic characteristics in these zones may affect agricultural productivity differently.

2015). Our analysis, therefore, is based on the theoretically informed expectation that the agroecological and socioeconomic characteristics of the places where individuals or households are located serve as important determinants of welfare levels (Benson, Chamberlin & Rhinehart, 2005).

As Fuwa (2000) pointed out, a large heterogeneity exists among plots headed by women (e.g., different reasons for becoming a plot head, heterogeneous interests, problems and types of inequality). Hence, in investigating whether plots headed by women are particularly disadvantaged, it is of paramount importance to include a sensitivity analysis related to alternative definitions of plot headship among various agroecological conditions. However, to date, as far as we are aware, this has not been explored.

The aim of our study is to examine the agroecological locations and underlying factors of gender disparities in agricultural productivity. Our measure of productivity was constructed by taking the market value per land of the output of three agricultural products–rice, maize, and groundnuts. We then addressed three questions: (i) where are gendered agricultural productivity gaps located? (ii) do the extent and correlates of gender disparities differ across agroecological zones? and (iii) do the magnitude and causes of gender disparities differ according to the definition of plot headship? Methodologically, we split the sample on the basis of each agroecological type as well as by gender of plot heads. We used five different gender indicators of plot head: (i) plots headed by women; (ii) *de jure* plots headed by women (i.e., women are the sole heads of their plots because of being single, separated, divorced, or widowed); (iii) plots headed by migrant women; (iv) plots managed by women; and (v) plots owned by women.

We addressed potential sample-selection bias first by employing the Heckman two-step method. Second, we estimated a Cobb-Douglas production function to control for district-fixed effects and employed an extended Oaxaca-Blinder method to decompose gender disparities into (i) endowment effects (the portion of gender disparities caused by observable differences in inputs) and (ii) structural effects (the unexplained portion of gender disparities caused by differences in returns to the

same observed inputs). Finally, we applied a distributional decomposition using percentile-weighted regressions to explore gender disparities at different levels of farmers' well-being. Analyses were conducted separately for each agroecological zone and each plot headship.

We found that gender disparities differed across agroecological zones and gender indicators: it is more acute in the arid Sahel agroecological area for all plot headships, except in the case of the plot-manager sample in which productivity was biased toward women; in the Bimodal Rainfall Humid Forest zone, gender disparities were absent across all gender indicators; and, in the Western Highlands region, the gender disparities were absent in the plot-manager sample while there was discrimination against women farmers in the remaining categories. We also found, in all agroecological regions and for all plot headships, that unobserved factors were the main contributors to gender disparities in productivity. Furthermore, women's structural disadvantage drove gender differences in returns to resource endowments; the contributing covariates differ by gender and geography. Finally, in all plots and agroecological regions, and across the agricultural productivity distribution, the endowment effect was more pronounced for the poorest and wealthiest farmers, and drivers differed between both groups of farmers.

Past studies on the gender-based differences in agricultural productivity are likely clouded by the failure to distinguish among very different types of plot headship for women in potentially different agroecological contexts. To the best of our knowledge, exceptions are the works by Oseni et al. (2015) in Nigeria and Slavchevska (2015) in the case of Tanzania. In contrast to these studies, we (i) control for sample selection, (ii) apply an extended Oaxaca-Blinder (Shapley) decomposition and a distributional decomposition using percentile-weighted regressions, obtaining both direct and indirect key drivers of gender disparities in productivity, and (iii) use five indicators of plot headship, obtaining robust results. A thorough understanding of the location and causes of gender disparities in agricultural productivity could allow the formulation of effective policies to reduce such disparities e.g., the formulation and implementation of "agroecology region-specific" agricultural policies, which are more relevant and effective than "national" policies. Our study

adds to the scientific literature in one way.

The rest of the paper is structured as follows. Section 2 elaborates on the implications for the gender disparities in productivity of various types of agroecological zones. Section 3 presents the data and describes the study area. Section 4 contains the empirical econometric model. The results are presented and discussed in Section 5. Section 6 then concludes and provides the policy implications of the findings.

II. Agroecological Characteristics and Gender Bias in Agricultural Productivity

Gendered productivity differentials are generally related to gendered access to productive assets, technology, institutions, and market opportunities (Anunobi, 2002). Agroecological production contexts are significant, however, in locating and further understanding gender-based differences in productivity. For example, dry and arid agroecological regions characterized by climate variability (e.g., high temperature and very low rainfall), and which therefore suffer from drought and water stress, might not be able to support sufficient agricultural production. As a result, gender disparities in such an agroecological context might arise from farmers' struggle to survive in a risky environment—the dry and arid environment, for example, could further burden women with such additional tasks as fetching water and firewood, reducing the time women spend on farming activities and resulting in lower agricultural productivity. Also, higher temperatures associated with climate variability are harmful to the production of many crops; in this context, women cultivators, who are more likely to cultivate low-value crops, might be further disadvantaged. Additional constraints on agricultural productivity, which are also causes of gender bias in agricultural productivity, include soil quality, land tenure inequality, access to markets, etc., all of which are agroecology dependent.

Access to and control of water also differ agroecologically and are important determinants of agricultural productivity as well as of gender based productivity differences. For example, in the context of low potential rainfed, the control of water, such as irrigation, becomes more difficult and more costly. In this context, women who often face serious constraints in access to productive resources, may experience lower productivity.

Likewise, religious and cultural norms vary by agroecological zone with potential implications for women's productivity. For example, women in Muslim-dominated agroecological zones where polygamy is common may be at a further disadvantage in productivity because some Islamic cultural norms are intertwined with access to land, legal provisions surrounding women's property rights, etc. Tenure restrictions or cultural taboos that vary across agroecological regions may prevent women from growing some crops or they may be marginalized to less productive lands (Croppenstedt et al., 2013).

Overall, we posit the following hypothesis:

H1: Gender differentials in productivity vary by agroecological zone.

A number of studies have explored disparities between men and women in agricultural across Africa using plot-level data and have obtained mixed results (see, among others, Udry et al., 1995; Udry, 1996; Akresh, 2005; Goldstein & Udry, 2008; Kazianga & Wahhaj, 2013; Oseni et al., 2015; Aguilar et al., 2015; Palacios-Lopez & Lopez, 2015; Kilic et al., 2015; Ali et al., 2016; De La O Campos et al., 2016). Our study is in line with these studies, but we contribute to the literature in one main area. With the exception of Oseni et al. (2015) and Slavchevska (2015), none of the previous studies have investigated spatial heterogeneity in productivity differentials by gender. The variety of climatic and agroecological conditions, as well as potential differences in gender norms across agroecological areas, however, may lead to pronounced regional differences in agricultural productivity between men and women. Thus, as a main contribution, we have explored how gender disparities in agricultural productivity vary spatially—i.e., across agroecological zones with heterogeneous agroclimatic and socioeconomic conditions. Further, and in contrast

to previous studies, we used an extended Oaxaca-Blinder (Shapley) decomposition that allowed us to delve deeper into how different covariates directly and indirectly contribute to gender disparities in agricultural productivity. Additionally, we examined gender disparities at specific percentiles using a distributional decomposition based on percentile-weighted regressions, which provides consistent estimated percentile coefficients compared to quantile and unconditional quantile models (Firpo et al., 2009; Araar, 2016).

III. Data and Study Area

3.1. Data

We relied on survey plot-level data from the Institute of Agricultural Research for Development (IRAD).[3] The survey was conducted in April-December 2009 and covered the Sahel agroecological zone in the north and far-north, the Western Highlands zone in the west and north-west, and the Bimodal Rainfall Humid Forest in the center. The IRAD dataset is a nationally representative survey because it covers five of the ten regions and three of the five main agroecological zones of Cameroon. The survey included three modules (household, producer, and complementary). We used gender of plot head as a proxy for studying differences in agricultural productivity. One of the advantages of the IRAD survey is that it allows the identification of five gender indicators: (i) plot head; (ii) *de jure* plot head (i.e., farmers who are the sole heads of their plots because of being single, separated, divorced or widowed); (iii) migrant plot head (the survey asked, "Is the farmer a native of the village?"); (iv) plot manager (the person responsible for growing the crops and making day-to-day decision on crop management (the survey asked, "*Person in*

[3] Research and development regarding crops in Cameroon is undertaken by IRAD, which also serves as a repository of seed breeding and production and supports technology transfer while ensuring a strong linkage among farmers, extension workers, and the private sector. We thank Mrs. Dorothy Malaa for making these data available.

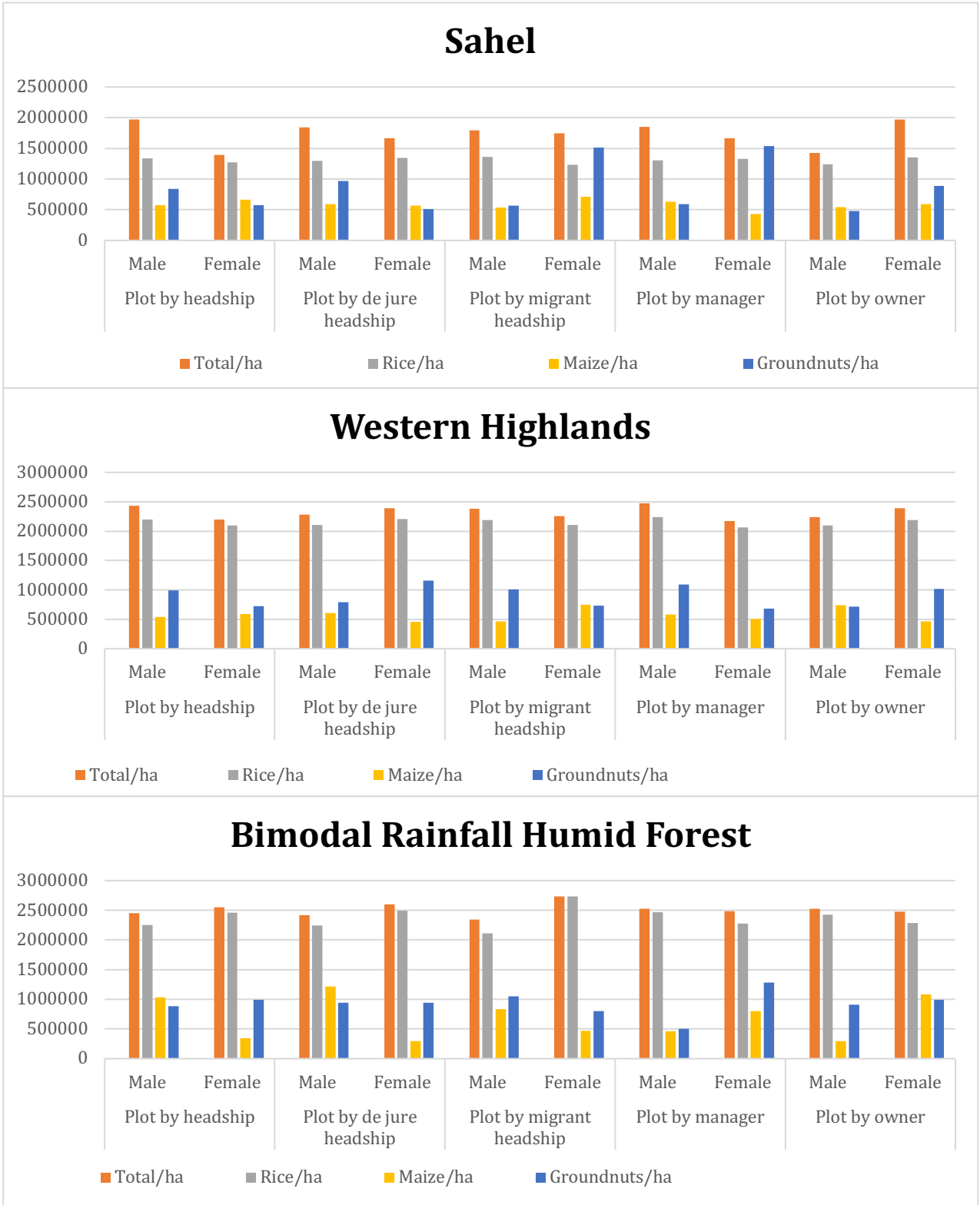
charge of the plot?"); and (v) plot owner (the survey question was "*Land tenure?").* Recorded responses were: (1) owner, (2) tenant, (3) temporary transfer, (4) donation, and (5) other. The various plot headships were combined with information in the household module, enabling us to determine the gender and socioeconomic characteristics of each plot headship.

The sample initially included 1,488 households whose members cultivated 4,026 plots across 166 villages. In drawing the final sample (i) we focused on active producers and limited the sample to plots with non-zero crop harvest was reported[4] and (ii) we focused on agricultural households for which complete information regarding gender indicators was available. The final sample consisted of 1,200 agricultural households and 3,075 plots across 125 villages and three agroecological zones. To avoid inconsistent estimates, the missing independent observations were imputed using the Predictive Mean Matching approach. The details of the selection, a full list of the variables along their meaning, and the descriptive statistics with the t-test of the differences in means are reported in Appendix Tables A1, A2, and A3, respectively.

Summary statistics and results from t-test mean differences by gender and region show variations and significant differences in the value of harvest and harvest per hectare (Figure 1) and in most household's and plot's characteristics, labor and nonlabor inputs. Figure 2 compares kernel density estimates by gender indicator and agroecological zone. Although there is overlap in many of the kernels, gender differences in agricultural productivity are evident in some cases.

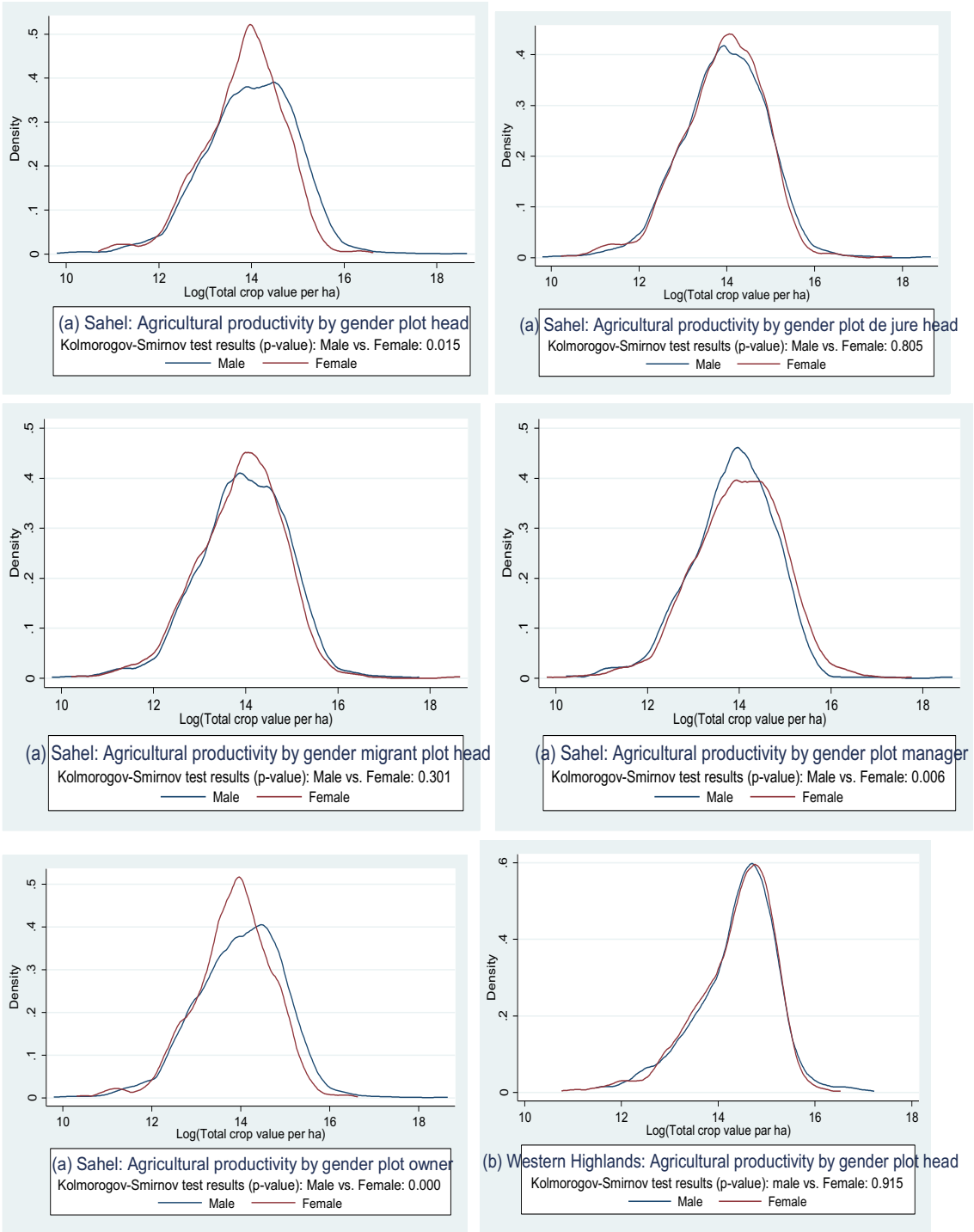
[4] This data cleaning process does not raise any selection bias because we focus on the groups of interest e.g. only active producers. Furthermore, there are 179 missing dependent observations representing approximately 5.8% of our sample observations.

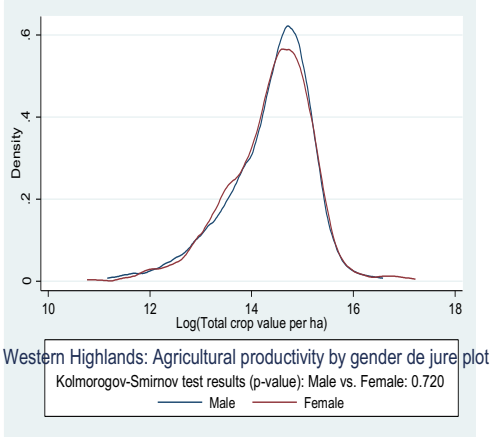
Figure 1: Agricultural Productivity by Gender and Agroecological Zone



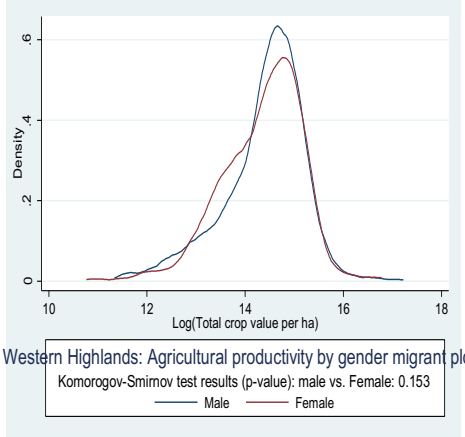
Source: Authors' calculations based on IRAD.

Figure 2: Kernel Density Estimates of Agricultural Productivity by Gender and Agroecological Zone

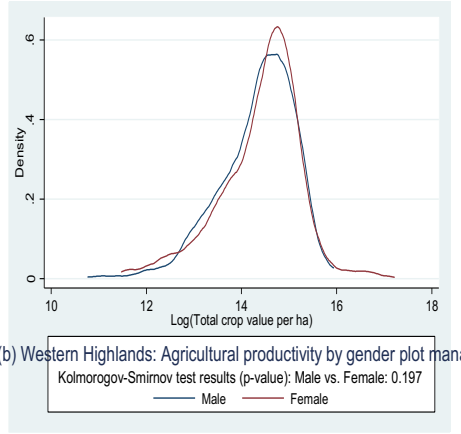




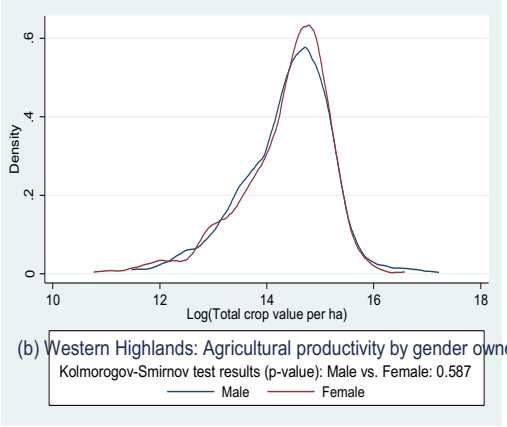
(b) Western Highlands: Agricultural productivity by gender de jure plot head



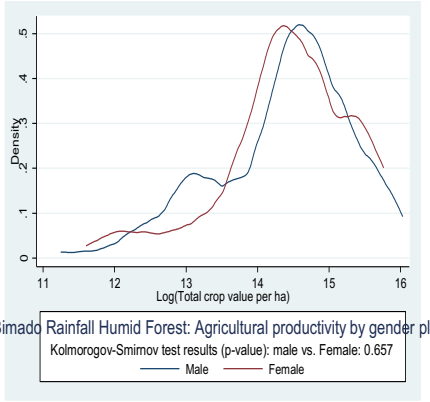
(b) Western Highlands: Agricultural productivity by gender migrant plot head



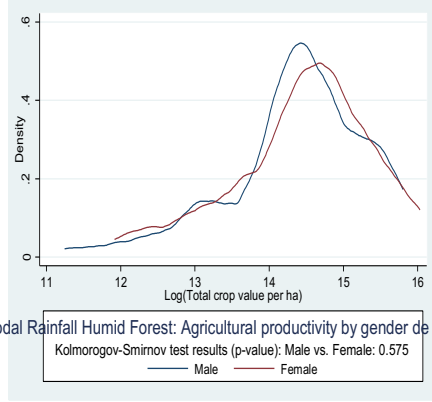
(b) Western Highlands: Agricultural productivity by gender plot manager



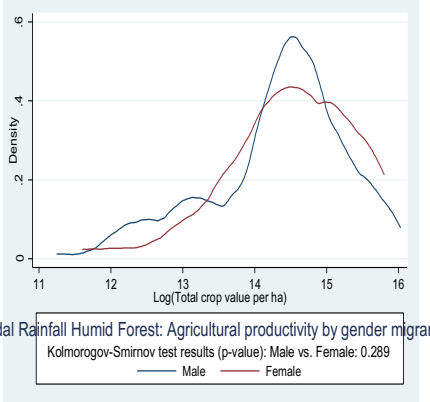
(b) Western Highlands: Agricultural productivity by gender owner



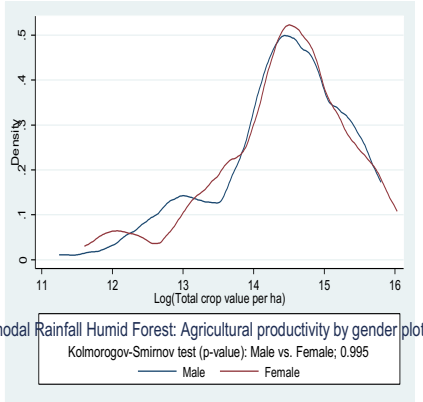
(c) Bimado Rainfall Humid Forest: Agricultural productivity by gender plot head



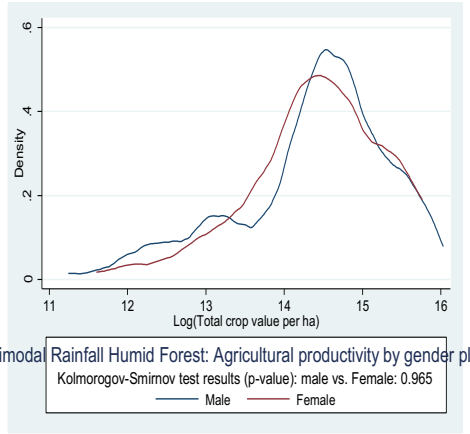
(c) Bimodal Rainfall Humid Forest: Agricultural productivity by gender de jure plot head



(c) Bimodal Rainfall Humid Forest: Agricultural productivity by gender migrant plot head



(c) Bimodal Rainfall Humid Forest: Agricultural productivity by gender plot manager



Source: Authors' calculations based on IRAD.

3.2. Study Area

Sahel. This zone is characterized by a large diversity in climate, rainfall, socioeconomic characteristics, etc., and thus may have extremely variable crop outcomes. The climate is humid, with a dry, semi-arid winter, a long dry season (nine to ten months), and a rainy season of four months (June-September). Annual rainfall is less than 800 mm with a large inter-year variation. The major rainfed crops are sorghum, millet, maize, groundnuts, cowpea, and rice, while cotton is the predominant cash crop. Labor is the key factor of production and Muslim and non-Muslim ethnicities coexist. Land is inherited patrilineally. In practice however, all land belongs to the chief who transfers its control to his deputies who, in turn, oversee the allocation of usufructuary rights to farming households (Yengoh et al., 2011).

Western Highlands. Here, cropping is much less risky. The climate is of a tropical humid mountain type and has two seasons: a rainy season of nearly eight months (March-October) and a four-month dry season (November-February). The annual rainfall is approximately 1,300-3,000 mm. A large proportion of the population (over 80%) is involved in small-scale farming (0.5-2 hectares per family). The main food crops are maize, groundnut, bean, and rice, all of which are rainfed; the main cash crops are tomato, leafy vegetables, and coffee. Access to land is marked by traditional land-tenure laws, which are characterized by unequal rights of access based on gender.

Bimodal Rainfall Humid Forest. The region is relatively well-endowed with

land, enabling farmers to sustain agriculture and shift cultivation; the use of slash-and-burn methods dominates. The zone has a four-season climate. There is a maximum of two dry months; the rainy season prevails during the rest of the year. Annual rainfall ranges from 1,500-3,000 mm.

Overall, the three agroecological zones differ radically in terms of climate, rainfall variability, soil richness, socioeconomic attributes, and other factors, because of which gender productivity differentials are also likely to vary.

IV. Econometric Approach

Our full-time farmers may differ in both observed and unobserved characteristics from individuals whose main activity is not farming (non-full-time farming). Therefore, estimating the crop production function with OLS directly may have caused a selection bias. To overcome this bias, we followed the approach of Ahmed and McGillivray (2015) and corrected this selection bias with the Heckman's (1979) two-step approach. In the first step, we estimated the inverse Mill's ratio (denoted by λ) from a probit equation determining participation in the smallholder farming. To do so, we estimate the following equation separately for men and women,

$$F_{ij} = Z_{ij}\gamma_j + \varepsilon_{ij} \quad (1)$$

where i denotes the plot and j gender group (women or men). F_{ij} is a dummy variable equal to 1 if full-time farming (i.e., smallholder farming is the main activity) and 0 otherwise. Z_{ij} represents the set of covariates and the instrumental variables[5]—(1) the number of children under 6 and number of adults aged 15 and higher in the household, (2) a dummy variable for being head of the household, (3) household non-farm income, and (4) household wealth. $\varepsilon_{ij} \sim$ IID $N(0,1)$. Estimation of Equation 1

[5] In order to identify the appropriate exclusion restrictions, we incorporated a set of variables that belonged to the selection equation but not to the agricultural-productivity equation.

allows to compute the inverse Mill's ratio $\left(\lambda_i = \frac{\phi(\gamma z_i)}{1-\Phi(\gamma z_i)}\right)$, which is then added as an additional regressor in the agricultural productivity equation. ϕ and Φ represent respectively the density and the cumulative density functions.

4.1. The Oaxaca-Blinder Decomposition Approach

We next focused on the decomposition of the gender disparities in productivity (D) using the classic Oaxaca-Blinder (OB) decomposition at the mean (Oaxaca, 1973; Blinder, 1973). Assume agricultural productivity (Y) for a gender $G \in \{M, F\}$ where M and F indicate men and women, respectively,

$$Y_G = \sum_{k=1}^{K} \beta_{G,k} X_{G,k} + \varepsilon_G \quad (2)$$

where X is a vector of K observable individual-, household-, and plot-level explanatory variables; β is the vector of intercept and slope coefficients; and ε is the error term under the assumption that $E(\varepsilon_M) = E(\varepsilon_F) = 0$. To decompose gender disparities (D), we have that:

$$D = E[Y_M] - E[Y_F] \quad (3)$$

Equations 2 and 3 imply that

$$D = E\left[\sum_{k=1}^{K} \beta_{M,k} X_{M,k}\right] - E\left[\sum_{k=1}^{K} \beta_{F,k} X_{F,k}\right] = \sum_{k=1}^{K} \beta_{M,k} \overline{X}_{M,k} - \sum_{k=1}^{K} \beta_{F,k} \overline{X}_{F,k} \quad (4)$$

By selecting women as a reference group and rearranging Equation 4, we can write:

$$D = \sum_{k=1}^{K} \left(\overline{X}_{M,k} - \overline{X}_{F,k}\right)\beta_{F,k} + \sum_{k=1}^{K} \left(\beta_{M,k} - \beta_{F,k}\right)\overline{X}_{F,k} + \sum_{k=1}^{K} \left(\overline{X}_{M,k} - \overline{X}_{F,k}\right)\left(\beta_{M,k} - \beta_{F,k}\right) \quad (5)$$

On the other side, if men become the reference group, we can write:

$$D = \sum_{k=1}^{K} \left(\overline{X}_{M,k} - \overline{X}_{F,k}\right)\beta_{M,k} + \sum_{k=1}^{K} \left(\beta_{M,k} - \beta_{F,k}\right)\overline{X}_{M,k} + \sum_{k=1}^{K} \left(\overline{X}_{M,k} - \overline{X}_{F,k}\right)\left(\beta_{M,k} - \beta_{F,k}\right) \quad (6)$$

However, the OB method raises the well-known index number problem.

Indeed, the endowment component (i.e., the first arguments in Equations 5 and 6) is sensitive to the selection of the reference group.

4.2. The Neumark (1988) Approach

Different approaches have been proposed to overcome the index number problem. All of them, however, are based on the use of a nondiscriminatory coefficient vector denoted by β^*. Chronologically, Reimers (1983) proposed using average coefficients over groups of women and men, an approach that was followed by Cotton (1988), who suggested weighing coefficients by group sizes. Neumark (1988) suggested instead the use of the coefficients from a pooled regression. Oaxaca and Ransom (1994) developed a general framework to weight coefficients. Also, this approach led to Neumark (1988) decomposition. Neumark (1988) and Oaxaca and Ransom (1994) have been criticized, however, because cases may exist in which the unexplained parts of the differential are in the explained component (see Fortin, 2006). To overcome this drawback, the addition of a gender dummy in the pooled regression has been suggested (see Jann, 2008).

We have exactly followed the method of Kilic, Palacios-Lopez, and Goldstein (2015), whose roots lie in the work of Neumark (1988). For our pooled data sample, we have

$$Y = \sum_{k=1}^{K} \beta_k^* X_k + \varepsilon \qquad (7)$$

where $\overline{X}_{G,k}$ refers to the average of the explanatory variable within gender G. Rearranging Equation (5) by adding and subtracting the return to the observable covariates of each group valued at β^*:

$$D = \underbrace{\sum_{k=1}^{K} (\overline{X}_{M,k} - \overline{X}_{F,k})\beta_k^*}_{\substack{Component\ 1:\\ Endowment\ Effect}} + \underbrace{\underbrace{\sum_{k=1}^{K} (\beta_{M,k} - \beta_k^*)\overline{X}_{M,k}}_{\substack{Male\ Structural\\ Advantage}} + \underbrace{\sum_{k=1}^{K} (\beta_k^* - \beta_{F,k})\overline{X}_{F,k}}_{\substack{Female\ Structural\\ Disadvantage}}}_{\substack{Component\ 2:\\ Structural\ Effect}} \quad (8)$$

As we can observe, the expected average covariates of the model $(\overline{X}_{G,k})$ contribute in each of the two main gender-disparity components.

4.3. The Extended Oaxaca-Blinder Approach

For deeper analysis, we developed an innovative method that can be used to study the determinants of a given endowment of interest and its contribution to gender disparities. For example, if we observe that education contributes significantly in the endowment effect component, we may be interested to study the estimation model and to show how its explanatory variables contribute indirectly to gender disparities. We denote the explanatory variables of the covariate of interest ($X_{G,I}$). Thus, we have that:

$$X_{G,I} = \sum_{l=1}^{L} \beta_{G,l} Z_{G,l} + \vartheta_G \quad (9)$$

Let AD_I denotes the absolute contribution of variable of interest if X_I to the gender disparities:

$$AD_I = \underbrace{(\overline{X}_{M,I} - \overline{X}_{F,I})\beta_I^*}_{\substack{SUB-Component\ 1:\\ Endowment\ Effect}} + \underbrace{\underbrace{(\beta_{M,I} - \beta_I^*)\overline{X}_{M,I}}_{\substack{Men\ Structural\\ Advantage}} + \underbrace{(\beta_I^* - \beta_{F,I})\overline{X}_{F,I}}_{\substack{Women\ Structural\\ Disadvantage}}}_{\substack{SUB-Component\ 2:\\ Structural\ Effect}}$$

(10)

Because $\overline{X}_{G,I} = \sum_{l=1}^{L} C_{G,l}$ and $C_{G,l} = \beta_{G,l}\overline{Z}_{G,l}$, we can write:

$$AD_I = \underbrace{\sum_{l=1}^{L} (C_{M,l} - C_{F,l})\beta_I^*}_{\substack{SUB-Component\ 1: \\ Endowment\ Effect}} + \underbrace{(\beta_{M,I} - \beta_I^*)\sum_{l=1}^{L} C_{M,l} + \sum_{k=1}^{K} (\beta_I^* - \beta_{F,I})\sum_{l=1}^{L} C_{F,l}}_{\substack{SUB-Component\ 2: \\ Structural\ Effect}} \quad (11)$$

Men Structural Advantage

Women Structural Disadvantage

This nested decomposition enables an examination of how indirect factors (e.g., ethnicity) contribute to the main gender disparities components. Let $AD_k = EE_k + SE_k$ and where EE_k SE_k refer to the endowment effect and structural effect respectively. We have that:

$$D = \sum_{k=1}^{K} AD_k = \sum_{k=1}^{K} EE_k + \sum_{k=1}^{K} SE_k \quad (12)$$

If we distinguish our explanatory variable of interest (education for instance), we can write:

$$D = \sum_{k=1,k\neq I}^{K} EE_k + \sum_{k=1,k\neq I}^{K} SE_k + \sum_{l=1}^{L} EE_{I,l} + \sum_{I=1}^{L} SE_{I,l} \quad (13)$$

4.4. Gender Disparities—Decomposition and Heterogeneity

The decompositions presented above give a general view of the extent of the different decomposition components based on reference men and women, supposed to form average endowments. But does the relative contribution of components vary largely from poor to rich? To examine the potential presence of heterogeneity, percentile gender disparities were decomposed. Instead of the usual quantile regression, we used the percentile-weighted regressions, which provided consistent estimated percentile coefficients compared to the quantile and unconditional quantile models of Araar (2016) and Firpo et al., (2009). Looking across the productivity distribution helps to determine whether the extent of gender disparities is more of an issue at the bottom or the top of a distribution, a distinction that has different policy implications.[6]

[6] For the computations, we use the Stata decgeng, which is available upon request.

V. Empirical Results and Discussion

5.1. Probit Results

Appendix Table A4 presents the results of probit estimation on the determinants of participation in smallholder farming for men and women, respectively, across agroecological zones. In the Sahel, the presence of children aged ≤ 5 in the household has a positive and significant coefficient in both men's and women's specifications. The estimated coefficients indicate that the number of children aged ≤ 5 in the household is associated with a 4.2 and 7.7 percentage-point increase in the farming probability of Sahelian men and women, respectively. The coefficient associated with the number of adults aged ≥ 15 in the household is negative and statistically significant in the specification for women. This indicates that the presence of adults in the household is associated with a decline of 1.5 percentage points in the likelihood that Sahelian women will be farmers. The wealth of the household strongly decreases the likelihood that men in the Sahel will farm. Finally, being head of the household is associated with a 9.9 percentage-point increase in the probability of farming for Sahelian women.

In the Western Highlands zone and for men, age is positively associated with the farming probability (with a decreasing effect). The number of adults aged ≥ 15 in the household and non-farm income significantly increase men's probability of farming. The number of adults aged ≥ 15 in the household is also associated with a 1.8 percentage point increase in women's probability of farming, while being head of the household is associated with a 9.3 percentage-point lower probability of farming for women. Turning finally to the Bimodal Rainfall Humid Forest zone, we observed that an increase in the number of years of education significantly increased men's likelihood of farming by 3.9 percentage points.

5.2. Production Function Estimates

Pooled and separate gender-based regression results of factors that drive or depress agricultural productivity across agroecological zones are displayed in

Appendix Table A5.

Sahel. Age is positively and significantly linked to productivity on migrant plots headed by men, with a decreasing effect. This indicates that, because of their experience, older migrant men in the Sahel region are more productive but less likely to adapt as they age. The same goes for the pooled sample in all plots. Years of education have a significant and negative effect on productivity on *de jure* plots headed by men. The child-dependency ratio significantly depresses productivity on plots headed by women, *de jure* plots headed by men, and migrant plots headed by men. In all plots, we identified an inverse relationship between agricultural productivity and plot area, suggesting that any increase in cultivated land area, all other things being equal, will reduce productivity. This echoes the findings by Oseni et al. (2015) in the northern region of Nigeria. The presence of child laborers in the family had a negative and significant relationship to productivity on plots headed by women, *de jure* plots headed by women, plots owned by women, and plots managed by men. In all plots and for the pooled sample, the presence of laboring children in the family also had a negative relationship to productivity. In all plots, the quantity of seed used per hectare had a positive and significant effect on productivity. Finally, growing a single crop on a plot (maincropping) was positively and significantly related to productivity on plots headed by men and those managed by women. The estimated coefficients show that maincropping drives productivity by 20.3% on plots headed by men and 20.6% on those managed by women. This indicates that, in the Sahel region, men and women managers are more adept and experienced in single-crop farming.

Western Highlands. The key factors of production in this agroecological zone are also presented in Appendix Table A5. In most cases, these factors are different than in the Sahel zone. Age appears to have a positive and significant effect on productivity on pooled migrant sample and migrant plots headed by men, but the effect drops with age. As with the Sahelian sample, land size has a negative and significant effect on productivity, while the log of quantity of seed used per hectare is associated with significantly higher productivity in all plots. In contrast to the results

for the Sahel agroecological region, we found that the household size has positive relationship with productivity on almost all plots, except on *de jure* plots headed by women and in the migrant sample. The child-dependency ratio and livestock negatively and significantly affect productivity on the pooled sample, on migrant plots headed by men, and on plots owned by women plots. In terms of labor inputs, the coefficient on women family laborers is negative and statistically significant for *de jure* plots headed by women and on plots owned by men; child family labor significantly depressed productivity on plots headed by men, in the pooled sample, in migrant plots headed by women, and plots owned by men. Hired laboring men, in contrast, had a positive association to productivity on plots owned by women, and hired women laborers boosted productivity on plots headed by men and on those owned by men. In terms of nonlabor inputs, the log of quantity of fertilizer used per hectare is negative and has a significant relationship to productivity on the migrant plots headed by women sample.

Bimodal Rainfall Humid Forest. The results are also displayed in Appendix Table A5. Agricultural productivity is negatively associated with schooling on plots headed by men, on *de jure* plots headed by men, on migrant plots headed by men, and on plots owned by men. In all pooled samples and in the sample of plots managed by men, the coefficient of household size was negative and statistically significant. The child-dependency ratio had a negative and statistically significant effect on the productivity of plots managed by women. Livestock was positively and significantly related to productivity on migrant plots headed by men and on plots owned by men. In contrast to the Sahel and Western Highlands samples, distance from plot to homestead had a positive and strongly significant effect on the productivity of all women's plots. Among labor inputs, family labor by men and children was negatively related to agricultural productivity on all plots while the reverse was true for family labor by women in all pooled samples. In all pooled samples as well as in all women-headed plots, the log of herbicide per hectare was significantly and positively associated with productivity.

Overall, the results of the individual agroecological zones point to fundamental differences and some similarities in the factors influencing agricultural productivity in

those regions.

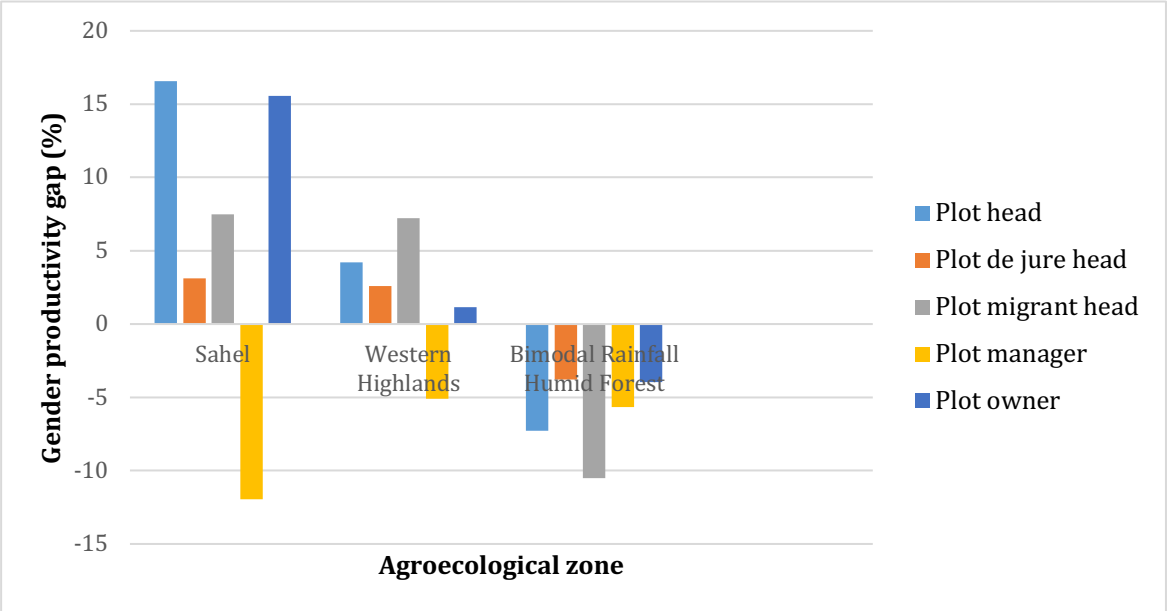
5.3. Aggregate and Detailed Decomposition Results

The aggregate and detailed decomposition results are presented in Appendix Table A6 Panels A-B. Panel A indicates the gaps and the associated components, while Panel B presents the detailed decompositions and the associated gap components. The results in Panel A indicate that gender disparities vary based upon agroecological zone and across gender indicators (Figure 3). Of note is the finding that a positive productivity gap indicated that men-headed plots were more productive than women headed ones, while a negative productivity gap suggested higher productivity for women-headed plots.

In the Sahel and Western Highlands regions, the coefficients on the gender disparities are positive and highly significant on all plot headships, except on plot managers. This indicates that in both regions, women are associated with significantly lower productivity, whereas there are no gender-based differences in productivity on plot managers. In addition and for all gender indicators, the men-women differences in productivity are more pronounced in the Sahel region. Specifically, in the Sahel, the gender disparities ranges from 3.1% on *de jure* plot headship to 16.6% on plot headship while in the Western Highlands it ranges from 1.2% on plot owners to 7.2% on plot migrant headship. Substantially different results are obtained for the Bimodal Rainfall Humid Forest, where we found negative and significant gender disparities for all plot headships. Hence, the pattern points to a lack of discrimination against women farmers in this agroecological region (i.e., farming men are associated with significantly lower productivity).

In sum, the evidence is consistent with the argument of agroecological variation in gender based disparities in agricultural productivity. From a policy perspective, it is important to understand the factors associated with those gender disparities. This is achieved in the next sections.

Figure 3: Extent of Productivity Gap by Gender Indicator and Agroecological Zone



Source: Authors' calculations based on IRAD.

5.3.1. Aggregate Decomposition Results

Sahel. In plot head and owner, the endowment effect is negative and statistically significant; the associated gender disparities in productivity of 16.6% and 15.6%, respectively are -2.8 percentage points for the former and -2.4 percentage points for the latter as a result of difference in endowments. In plot managers, the endowment effect is rather positive and significantly different from zero; of the observed gender disparities of about 12% in favor of plots managed by men, 5.2 percentage points are explained by gender differences in the levels of productive resources. In plot *de jure* and migrant heads, the explained portion of the gap is not significant.

In all plots, the structural effect is statistically significant; it accounts for 19.3 percentage points (plot head), 3.3 percentage points (plot *de jure* head), 7.5 percentage points (plot migrant head), -17.2 percentage points (plot manager) and 18 percentage points (plot owner) of the gender disparities in productivity. Further, the structural portion of the gap is disaggregated into the men's structural advantage and women's structural disadvantage. In all plots, the men's structural advantage is significant; it is highest on plot owner (6.6 percentage points) and lowest on plot manager (-9.6 percentage points). The coefficient on women's structural

disadvantage is strongly statistically significant in all plots; it is highest on plot head (12.8 percentage points) and lowest on plot manager (-7.5 percentage points).

Western Highlands. In all plots, the portion of the gender differential in productivity caused by characteristics of plots is statistically significant; it is -1.8 (plot *de jure* head), -3 (plot head), -3.7 (plot owner), 0.5 (plot migrant head), and 3.7 (plot manager) percentage points. Also, and in all plots, the structural effect is statistically significant; it is -8.8 percentage points on plot manager and ranges between 4.4-7.2 percentage points on the remaining plots. The coefficients on both men's structural advantage and women's structural disadvantage are significantly different from zero on all plots; the men's structural advantage is -4.6 percentage points on plot manager and varies between 2.1-3.4 percentage points on the remaining plots; the coefficient on women's structural disadvantage is -4.2 percentage points on plot manager and is in the range of 2.4 to 3.8 percentage points on the rest of the plots.

Bimodal Rainfall Humid Forest. In the decomposition results, we found that the explained portion is statistically significant only on plot head and is -2.5 percentage points as a result of differences in endowments. The unexplained portion is statistically significant in all plots; it explained 3.5 (plot *de jure* head), -3.7 (plot owner), -4.8 (plot head and manager) and -10.3 (plot migrant head) percentage points of the gender disparities in productivity. The men's structural advantage is significant in three plots e.g., plot head (-1.6 percentage points), plot migrant (-7.1 percentage points) and plot *de jure* head (6.7 percentage points). In all plots, the coefficient on the women's structural disadvantage component is negative and highly statistically significant.

Figure 4a further illustrates the aggregate decomposition of gender difference in productivity.

Overall, in all agroecological zones, the gender disparities in productivity is as a result of farmers' unobserved characteristics, mirroring the findings by Mbratana and Fotié Kenne (2018) on gender wage gap in self-employment in Cameroon. The importance of the structural effect over the endowment effect might be related to various unobservable discriminations against Cameroonian women. For example,

relative to men, women farmers are significantly younger and hence face a substantial disadvantage in terms of farming experience. Because of reproductive activities, women also have lower returns from having a greater dependency burden with many children. Women are also disadvantaged on the household size dimension e.g., a higher number of adult household members. Cultural differences and norms across agroecological regions, regional socioeconomic differences e.g., access to roads and markets, bureaucratic and gendered land tenure legislation (Vitalis Pemunta, 2017) etc. also explain gender differences in returns to resource endowments.

5.3.2. Detailed Decomposition Results

In order to accurately identify the factors that contribute the most to the different components of the gender disparities, it is worth noting that for the endowment effect, a positive (negative) coefficient widens (reduces) the gender disparities. Concerning the structural component, a positive coefficient for men's structural advantage implies that men obtain a higher return than average, whereas a positive coefficient for women's structural disadvantage indicates that women obtain a lower return than average.

Sahel. On factor contributes the most to the different components of the gap on plot head e.g., the quantity of seed used per hectare; it does so by contributing positively to the endowment effect (5.4%), men's structural advantage (14.5%) and to women's structural disadvantage (172.6%). Hence, plots headed by women in the Sahel zone faced substantial discrimination in returns to seed use. Family labor by men and boys mainly magnified gender disparities on plot *de jure* head by enlarging the endowment effect (1.3%), men's structural advantage (124.5%) and women's structural disadvantage (398.7%). The age variable widened gender disparities on plot migrant head the most by contributing positively to the endowment effect (60.8%), men's structural advantage (201.1%) and to women's structural disadvantage (394.8%). Similar effects were found for plot owner, but the differences were not as large e.g., contribution to the endowment effect (53.2%), men's structural advantage (10.3%) and to women's structural disadvantage (93.6%). In contrast, and for plot manager, the main factor reducing the gender disparities is land size; it does so by

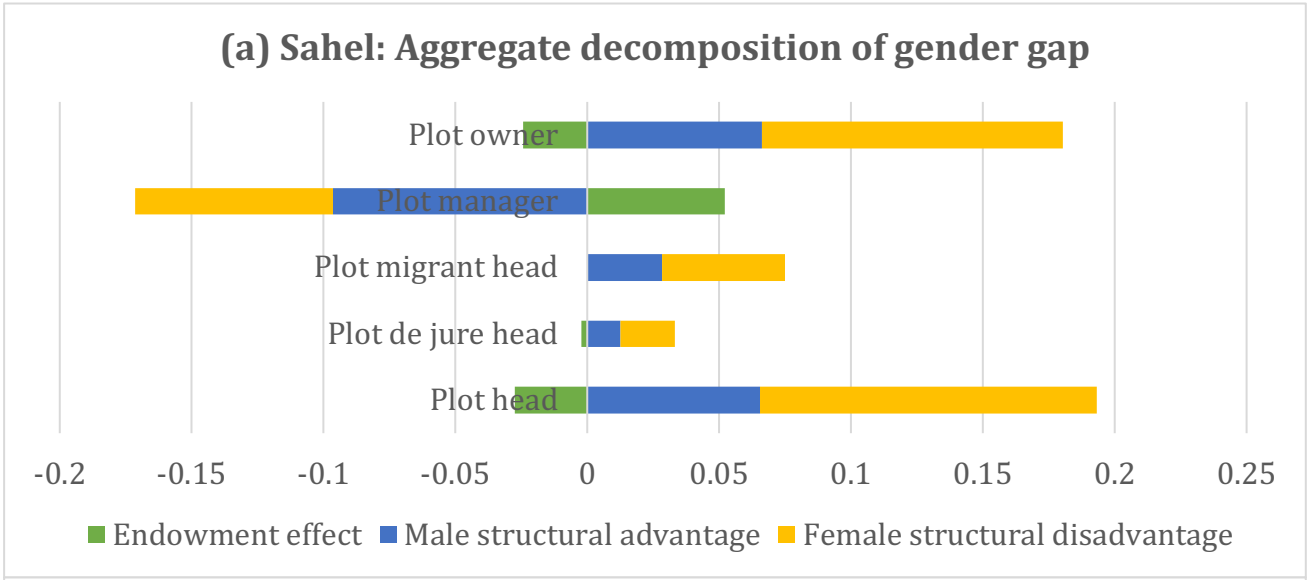
decreasing the endowment effect (-1.4%), men's structural advantage (-131%) and women's structural disadvantage (-77.3%).

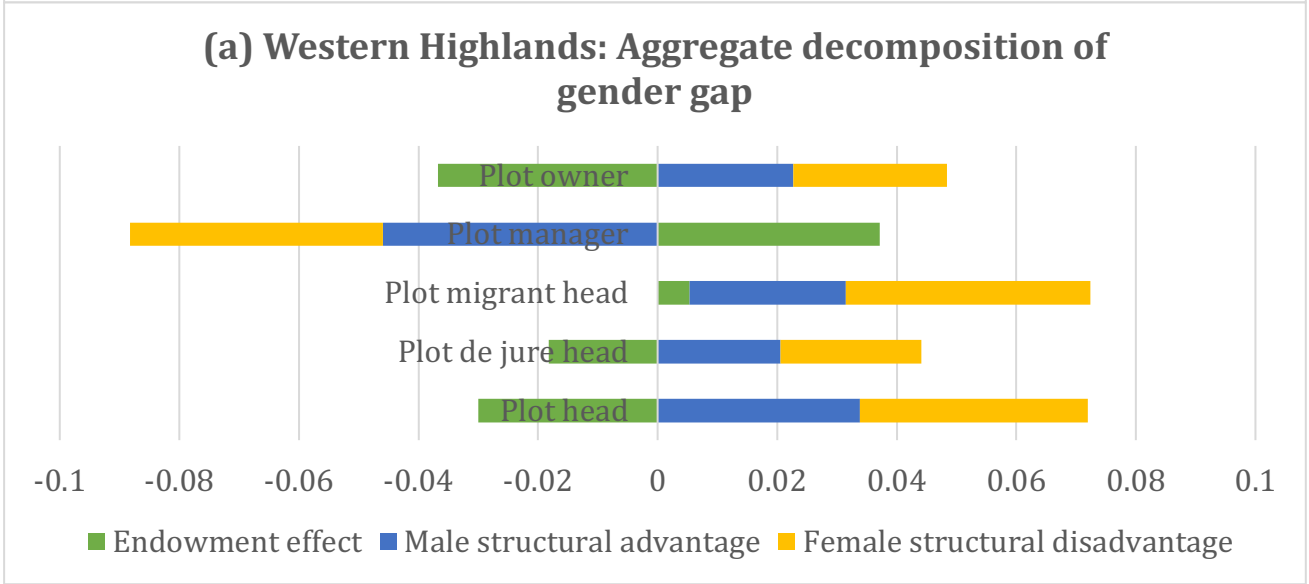
Western Highlands. In three plots e.g., plot head, plot *de jure* head, and plot owner, the single most important driver of gender differences in productivity is fertilizer, which contributes to the size of (i) endowment effect for 1.4% (plot head), 3.1% (plot *de jure* head) and 5.2% (plot owner), (ii) men's structural advantage for 588.1% (plot head), 272.9% (plot *de jure* head) and 780% (plot owner), and (iii) women's structural disadvantage for 602.4% (plot head), 450.2% (plot *de jure* head) and 1,247% (plot owner). In the plot migrant head, age is the main factor enlarging the factor effect (58.8%), men's structural advantage (170.1%) and the women's structural disadvantage (415.2%) and thus widens the gender disparities. In the plot manager, agricultural equipment is the factor that contributes the most negatively to the factor effect (-1%), men's structural advantage (-89.2%) and women's structural disadvantage (-95.7%) and thus reduces the gender disparities.

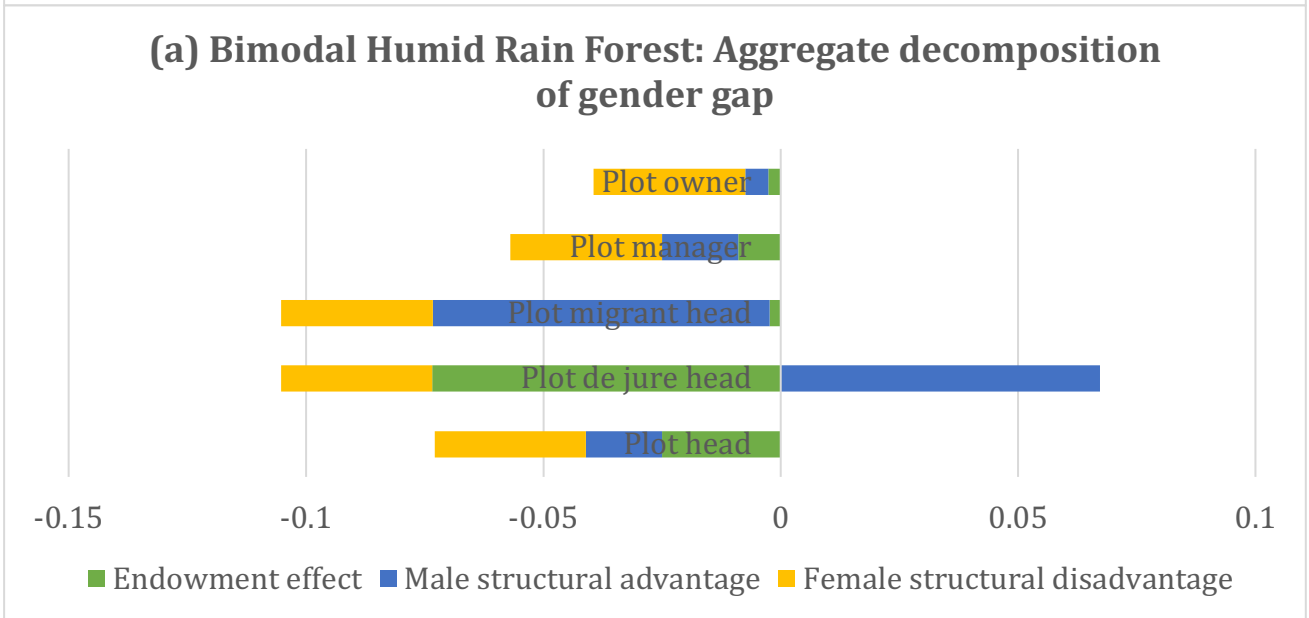
Bimodal Rainfall Humid Forest. In all plots, except the plot migrant head, fertilizer significantly depresses the gender disparities by reducing the endowment effect, men's structural advantage and women's structural disadvantage. Finally, in the plot manager, livestock reduces the gap by contributing negatively to the factor effect, men's structural advantage, and women's structural disadvantage.

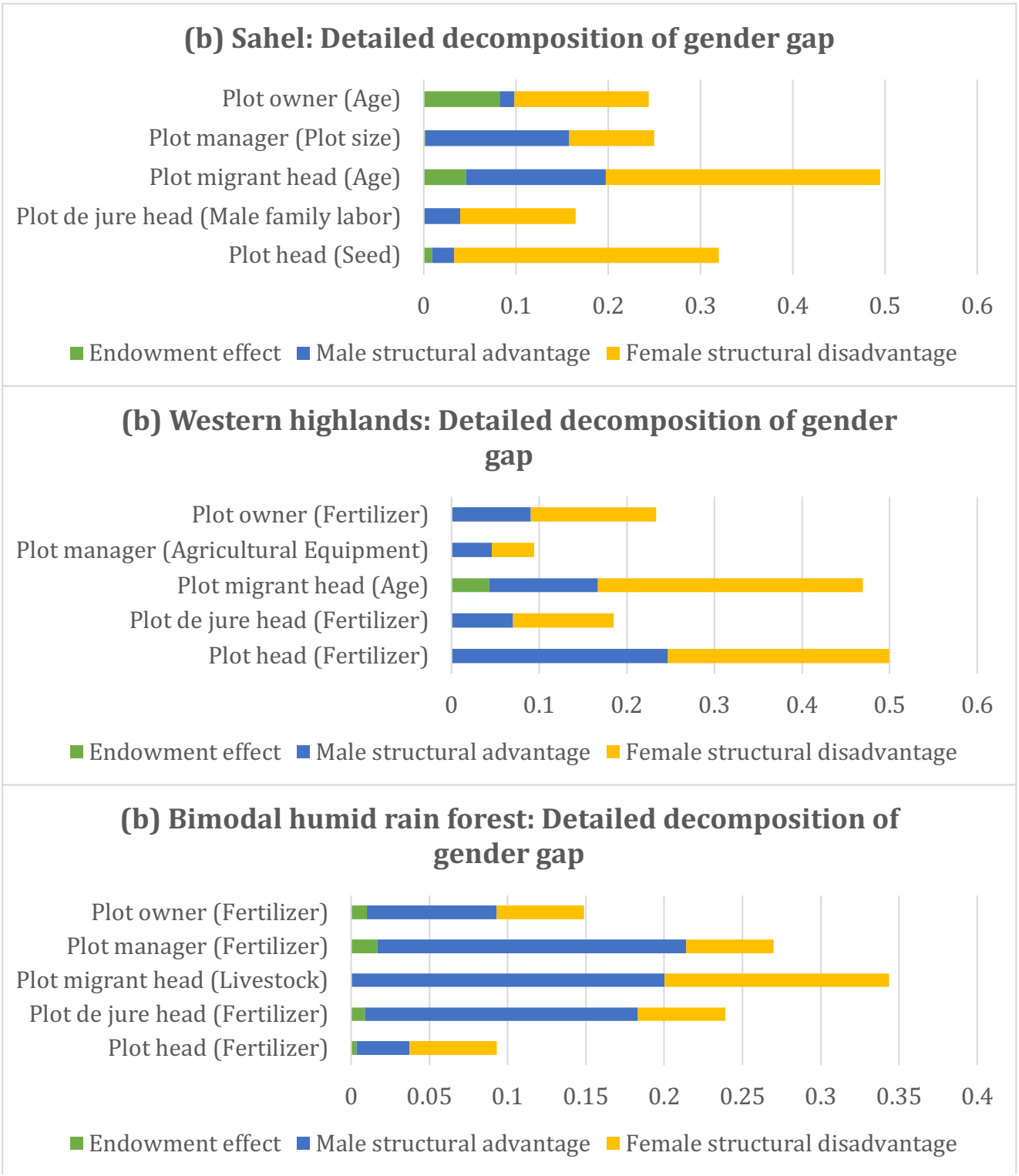
Figure 4B further illustrates the detailed decomposition of gender disparities. Overall, the women's structural disadvantage drives the gender disparities in all agroecological zones and for all gender indicators as a result of various factors.

Figure 4ab: Decomposition of Gender Disparities by Agroecological Zone









Source: Authors' construction based on IRAD.

5.4. Indirect Contributors to Gender Disparities

Appendix Table A7 reports on factors that may be correlated with the drivers of gender disparities across agroecological regions.

Sahel. Household equipment positively affected labor by men in the family of plot *de jure* heads. In the plot migrant head and plot manager, education was negatively related to age while maincropping carried a positive and significant association with age. Although marginally significant, access to credit was negatively related to the age of migrant farming men. Ethnicity[7] was positively and significantly linked to land size among plot managers. Finally, we found the relationship between land size and age of plot owner to be negative and marginally significant.

Western Highlands. In the plot head, *de jure* head, and owner samples, fertilizer was the main contributing factor to gender disparities. Our results indicated that the cost of fertilizer was negatively and significantly related to the quantity of fertilizer used on those plots. Household equipment was positively associated with the use of fertilizer on plots that were pooled and headed by men; pooled and *de jure* plots headed by men; and pooled plots managed by men. Education had a negative effect on age of plot migrant head, and access to credit had a negative effect on the age of migrant head men. Regarding plot managers, planting a single crop on the plot was negatively and significantly related to agricultural equipment.

Bimodal Rainfall Humid Forest. In all plots, except for plot migrant head, fertilizer was the covariate that most magnified gender disparities. We found that, in those plots, the cost of fertilizer had a negative effect on the quantity of fertilizer used per hectare. Access to credit was negatively and significantly linked to fertilizer use in the pooled plot head, *de jure* plot head, manager, and plot-owner samples; the same held for plots managed by men. The level of education of *de jure* women heads, women managers, and women owners was positively related to fertilizer use. Household equipment positively affected the use of fertilizer on plots headed by men. In the plot migrant head, the main factor explaining the gap was livestock. The results indicate that access to credit had a negative effect on the livestock of migrant-head women.

[7] Following past studies (Filmer & Pritchett, 2001, and Fisher & Kandiwa, 2014) ethnicity index was constructed using principal component analysis (PCA) based on forty ethnic groups.

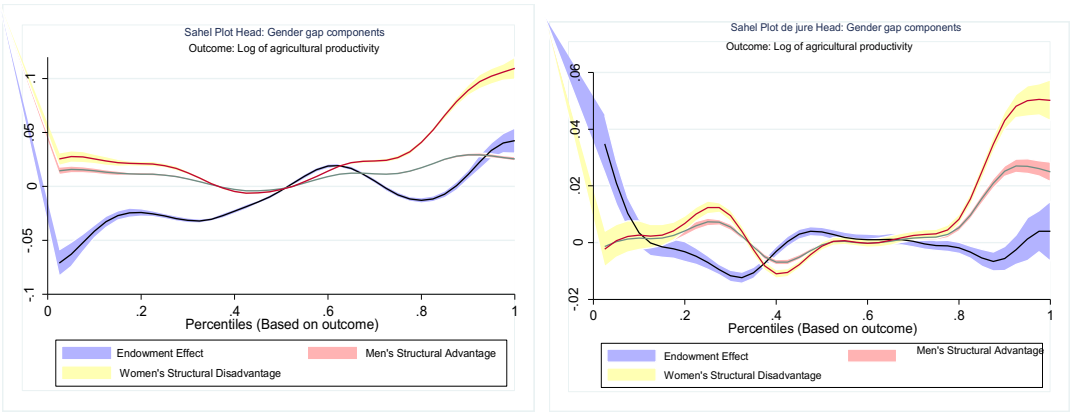
5.5. Distributional Decomposition Results

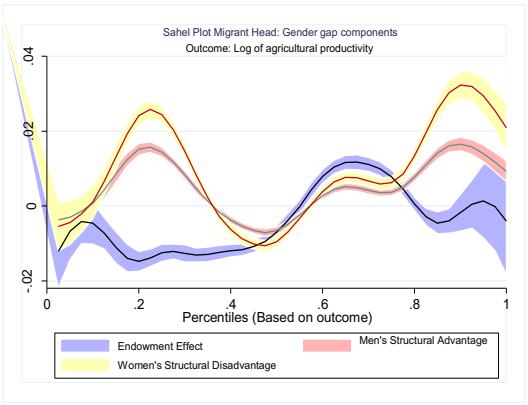
For each agroecological region, decomposition by productivity percentiles is presented in Appendix Table A8. Figure 5 illustrates the evolution of the different components of the productivity gap at various percentiles.

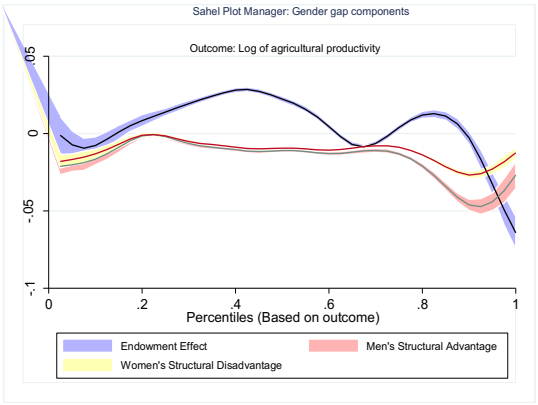
In all plots within agroecological regions, the graph shows a larger endowment effect at the bottom and top of the productivity distribution. This suggests that policies aimed at reducing gender disparities through, for example, improved access to productive resources, might be most effective if directed specifically toward men and women farmers with relatively low and high productivity levels. Further, and relative to other plots and agroecological regions, resource endowment at the lower and upper part of the distribution was more pronounced on the plot migrant sample in two agroecological regions (the Sahel and the Bimodal Rainfall Humid Forest).

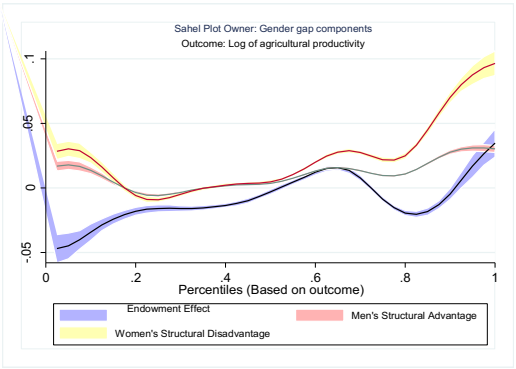
In all plots and agroecological regions, gender differences in returns to endowments drive gender disparities, and women's structural disadvantage is the primary contributor. Again, these results are relevant from a policy perspective: addressing gender differences in resource endowments would have the highest impact on the poorest and wealthiest farmers, and migrant farmers in the Sahel and Bimodal Rainfall Humid Forest regions would benefit the most. Our results are consistent with those of Singbo et al. (2021) who found that a large portion of gender disparities in productivity among farm households in Mali could be attributed to an unexplained structural effect, namely women's structural disadvantage.

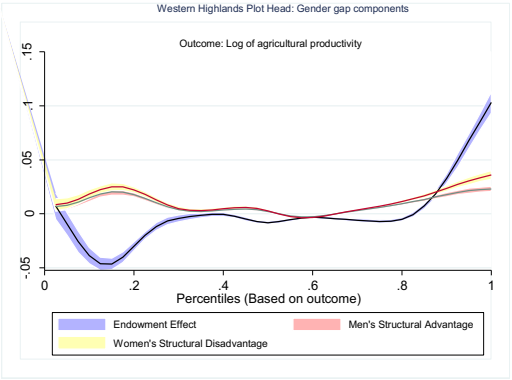
Figure 5: Gender Disparity Components by Percentile across Agroecological Zones

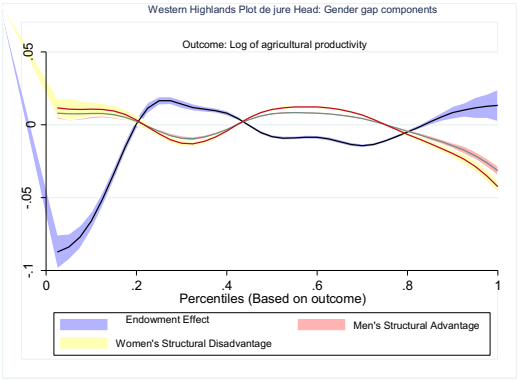


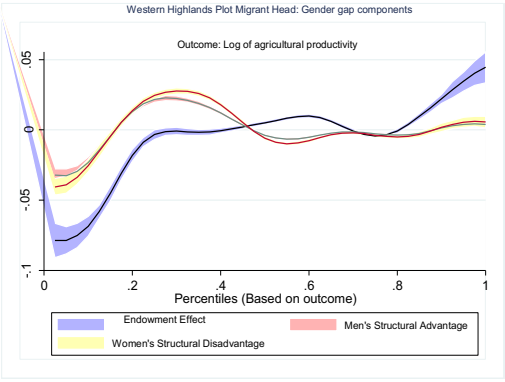

Sahel Plot Migrant Head: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage

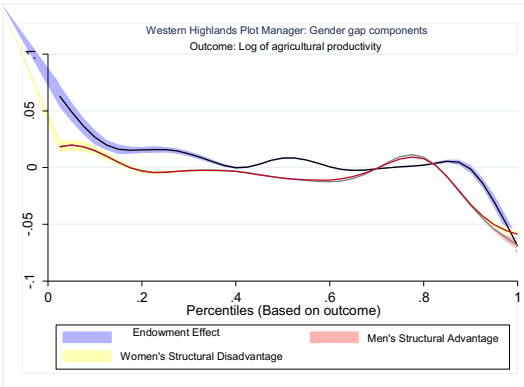

Sahel Plot Manager: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage

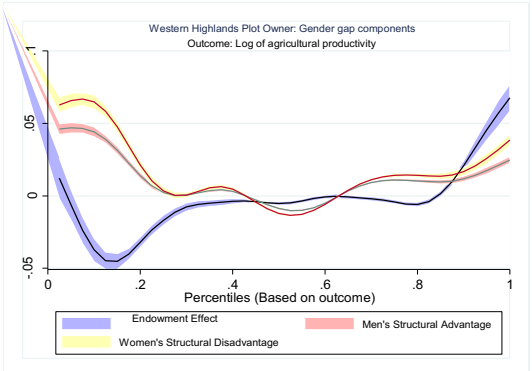

Sahel Plot Owner: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage

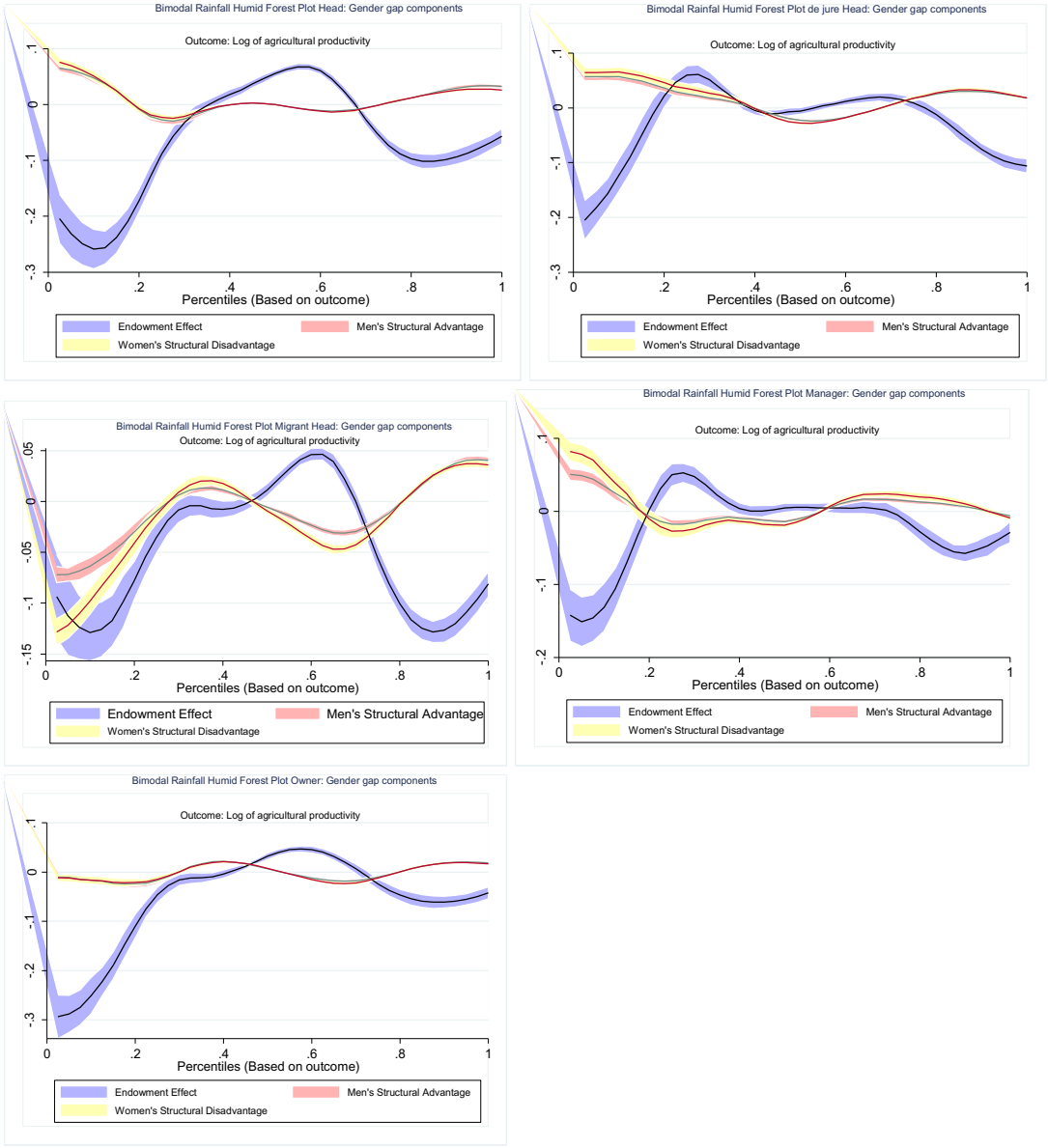

Western Highlands Plot Head: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage


Western Highlands Plot de jure Head: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage


Western Highlands Plot Migrant Head: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage


Western Highlands Plot Manager: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage


Western Highlands Plot Owner: Gender gap components
Outcome: Log of agricultural productivity
Percentiles (Based on outcome)
Endowment Effect
Men's Structural Advantage
Women's Structural Disadvantage



Source: Authors' construction based on IRAD.

VI. Conclusion and Policy Implications

The main results of our study are as follows. First, we found that gender disparities differ across agroecological zones and gender indicators. They are more acute in the arid Sahel agroecological area for all plot headships, except for plot managers (productivity is biased toward women). In the Bimodal Rainfall Humid Forest zone, gender disparities are absent in all gender indicators and, in the Western Highlands region, gender disparities are absent among plot managers while

discrimination remains against all other women farmers. Second, in all agroecological regions and for all plot headships, we found that unobserved factors were the main contributors to gender disparities in productivity. Furthermore, women's structural disadvantage drives gender differences in returns to resource endowments, and the contributing covariates differ by gender and geography. Finally, in all plots and agroecological regions, and across the agricultural productivity distribution, the endowment effect is more pronounced for the poorest and wealthiest farmers and the drivers differ between both groups of farmers.

These results have implications for agricultural policy. First, the gender imbalance in returns to resource endowments should be addressed. Given the primary contribution of women's structural disadvantage to gender disparities, attention to gender differences in returns to resource endowment could have large payoffs. Second, differences in observed resource endowments are important at the lower and upper levels of agricultural productivity. Therefore, providing inputs to the poorest and wealthier farmers may help reduce gender differences in agricultural productivity for all plot headships.

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Appendix

Table A1: Sample Selection by Agroecological Zone

Plot heads	Sahel		Western Highlands		Bimodal Rainfall Humid Forest	
	Men	Women	Men	Women	Men	Women
Plot head	1,067	550	693	538	115	112
Plot *de jure* head	1,003	614	730	501	124	103
Plot migrant head	1,008	609	706	525	131	96
Plot manager	692	925	599	632	133	94
Plot holder	1,029	588	718	513	117	110
Total	1,617		1,231		227	

Source: Authors' calculations based on IRAD.

Table A2: Definition of Variables

Variable	Definitions of variable
Production and productivity	
Agricultural production	Following past studies (e.g., Owens, Hoddinott & Kinsey, 2003; Peterman et al., 2011; Ragasa et al., 2015), the gross revenues from crop production are calculated by multiplying the quantity of harvest (in kilograms) of each crop on the plot by the median price received by farmers in a specific village for each crop.[8] The gross value of harvest is calculated by summing up the values of all crops harvested on the plot.
Agricultural productivity	Our main dependent variable, the agricultural productivity is measured by dividing the value of harvest (in Central African Francs; hereafter CFA) by the plot size expressed in hectares.[9]
Household characteristics	
Age	Age of the plot head
Education	Number of years of schooling of plot head
Married	1 if individual is married
Single	1 if individual is single
Widowed	1 if individual is widowed
Divorced	1 if individual is divorced
Adult women	Number of adult women in the household (persons)
Adult men	Number of adult men in the household (persons)
Household size	Number of adult men and women in the household
Child-dependency ratio	Number of household members aged below 15 and above 64 over those in the labor force (i.e., 15-64, inclusive)
Head of the household	1 if individual is head of the household
Number of children, aged 0-5 in the household	Number of children aged ≤ 5 in the household
Number of adults, aged 15 and higher in the household	Number of adults aged ≥ 15 in the household
Non-farm income	Value of non-farm income at the household level in CFA

[8] The value of production is used because the majority of the plots are intercropped and area estimates for each crop are difficult to calculate.

[9] This procedure is meant to limit bias resulting from differences in self-reported and actual sale-price received by farmers. Another concern in using the farmers' own valuation of production is that farmers who do not sell crops or who sell only a few may not be able to value their production accurately. Last but not the least, the self-reported prices by farmers may be biased because of lack of storage or cultural hurdles that make it harder for farming women to bargain for higher prices.

Table A2 continued

Variables	Definitions of variables
Livestock	Number of livestock owned by the household
Household wealth	Total value of the household's physical assets (i.e., the number of physical assets times price of acquisition). The components reflecting household ownership of physical assets are: bath tub, mirror, library, cabinet/drawers, bucket, radio-cassette, drum or barrel, sofa, spoon/fork, bed sheet, jerry can, vehicle, pots, broom, straw mattress, radio, motorcycle, stockpots, rifle, TV, bed, bike, modern mattress, mat, stools, chairs, plates, basins, and moped.
Plot characteristics	
Land area	Area of plot in hectare
Main cropping	1 if main crop is cultivated
Intercropping	1 if plot is intercropped
Plot distance to home	Distance from homestead to plot in km
Cost of irrigation	Cost of irrigation in CFA
Access to credit	1 if access to credit in kind
Labor and Inputs	
Adult laboring men in family	Number of adult family laboring men used on plot
Adult laboring women in family	Number of adult family laboring women used on plot
Child laborers in family	Number of children who provide family labor on plot
Hired men	Number of hired men used on plot
Hired women	Number of hired women used on plot
Hired child labor	Number of children who provide hired labor on plot
Fertilizer per hectare	Quantity of fertilizer (kg) per hectare
Herbicide per hectare	Quantity of herbicide (kg) per hectare
Seed per hectare	Quantity of seed (kg) per hectare
Household agricultural equipment	Total cost of agricultural equipment i.e., number of agricultural equipment times the unit price of purchase. The household's agricultural tools include: knife, machete, agricultural stores, pick axe, watering can, wheelbarrow, shovel, rake, hatchet, motor cultivator, file, plough, sewing machine, cart, sprayers, disk harrow/harrow, ox for farm work, donkeys, hoes, and tractors.

Table A3: Descriptive Statistics by Agroecological Zone

I) Sahel

	Plot by headship				Plot by *de jure* headship			
	All	Men	Women	Difference	All	Men	Women	Difference
Observations	1,583	1,046	537		1,583	983	600	
Production and Productivity								
Total	1566679	1670406	1364631	305775***	1566679	1607439	1499899	107539.4
Total/hectare	1772076	1968191	1390802	577388.9***	1772076	1837712	1664761	172950.6
Rice/hectare	1313061	1336125	1268409	67715.32	1313061	1292873	1346126	53252.57
Maize/hectare	583765.4	573582.1	666982.8	93400.72	583765.40	593250.20	565958.20	27292.02
Groundnuts/hectare	809273.1	836122	578271	257851	809273.1	964521.1	507750.8	456770.3
Household characteristics								
Age (years)	33.740	36.677	28.044	8.633***	33.740	33.778	33.679	0.099
Years of schooling	2.299	2.091	2.704	0.613***	2.299	2.225	2.420	0.195
Married	0.632	0.638	0.620	0.018	0.632	0.613	0.663	0.050**
Unmarried	0.368	0.362	0.380	0.018	0.368	0.387	0.337	0.050**
Adult women	2.953	2.836	3.180	0.344**	2.953	2.979	2.910	0.069
Adult men	3.188	3.044	3.467	0.423**	3.188	3.161	3.233	0.072
Household size	6.141	5.880	6.647	0.767***	6.141	6.140	6.143	0.004
Child dependency	0.691	0.722	0.632	0.091***	0.691	0.704	0.671	0.034
Non-farm income	104364.5	100007.8	112816.4	12808.57	104364.5	100430.9	110790.2	10359.28
Livestock	2.996	3.085	2.822	0.263	2.996	3.014	2.966	0.048
Household wealth	116691.7	102710.5	143815.3	41104.83	116691.7	124824.1	103407.1	21417.05
Head of household	0.500	0.657	0.195	0.462***	0.500	0.514	0.476	0.039
No children aged 0-5	0.369	0.299	0.505	0.206***	0.369	0.343	0.412	0.069
No adults aged 15+	3.776	3.285	4.727	1.442***	3.776	3.763	3.796	0.033
Plot characteristics								
Land area	1.128	1.143	1.101	0.042	1.128	1.131	1.124	0.007
Main cropping	0.480	0.493	0.455	0.038	0.480	0.472	0.493	0.022
Plot distance to home	2.507	2.613	2.302	0.310**	2.507	2.604	2.348	0.256**
Cost of irrigation	78713.67	78761.48	78620.91	140.572	78713.67	78923.73	78370.52	553.208
Access to credit	0.174	0.178	0.167	0.011	0.174	0.184	0.158	0.026
Labor and Inputs								
Adult laboring men in family	8.693	8.631	8.815	0.184	8.693	8.724	8.642	0.083
Adult laboring women in family	5.906	6.023	5.678	0.345	5.906	5.979	5.787	0.192
Child laborers in family	5.218	5.276	5.104	0.173	5.218	5.391	4.935	0.456**
Hired men	3.484	3.601	3.258	0.343**	3.484	3.557	3.365	0.193

Table A3 continued
I) Sahel

	Plot by headship				Plot by *de jure* headship			
	All	Men	Women	Difference	All	Men	Women	Difference
Hired women	2.921	2.940	2.884	0.056	2.921	2.828	3.073	0.246**
Hired child labor	2.983	2.986	2.978	0.007	2.983	3.052	2.871	0.181*
Fertilizer (kg/hectare)	136.380	140.419	128.545	11.874	136.380	126.839	151.966	25.128
Herbicide (kg/hectare)	6.558	7.330	5.061	2.269	6.558	7.564	4.916	2.648**
Seed (kg/hectare)	43.471	46.098	38.376	7.721	43.471	44.961	41.038	3.924
Agricultural tools	453423.8	240869.3	865779.5	624910.2	453423.8	642969.5	143791.4	499178.2
	Plot by migrant headship				Plot by manager			
	All	Men	Women	Difference	All	Men	Women	Difference
Observations	1,583	985	598		1,583	909	674	
Production and Productivity								
Total	15669	1592089	1524824	1566679	1566679	1593598	1530374	63223.77
Total/hectare	1772076	1789785	1742965	1772076	1772076	1851446	1665267	186178.50
Rice/hectare	1313061	1363099	1231769	131330.70	1313061	1303428	1325875	22447.08
Maize/hectare	583765.4	537753.3	708697	170943.7	583765.4	628499	429570.2	198928.80**
Groundnuts/hectare	809273.1	564210.9	1516399	952188.2	809273.1	593494.9	1540315	946819.90*
Household characteristics								
Age (years)	33.740	34.989	31.673	3.316***	33.740	35.268	31.698	3.570***
Years of schooling	2.299	2.201	2.461	0.260**	2.299	2.297	2.302	0.005
Married	0.632	0.622	0.649	0.027	0.632	0.627	0.639	0.012
Unmarried	0.368	0.378	0.351	0.027	0.368	0.373	0.361	0.012
Adult women	2.953	2.978	2.911	0.067	2.953	2.682	3.315	0.633***
Adult men	3.188	3.160	3.235	0.075	3.188	2.979	3.467	0.487***
Household size	6.141	6.138	6.146	0.008	6.141	5.662	6.782	1.120***
Child dependency	0.691	0.701	0.675	0.026	0.691	0.751	0.612	0.140***
Non-farm income	104364.50	101106.90	109756.30	8649.46	104364.50	110647.90	99663.76	10984.16
Livestock	2.996	3.065	2.880	0.185	2.996	3.055	2.916	0.139
Household wealth	116691.7	120360.7	110619	9741.67	116691.70	132928.4	94988.14	37940.24
Head of household	0.500	0.568	0.386	0.183***	0.500	0.663	0.282	0.381***
No children aged 0-5	0.369	0.307	0.473	0.166***	0.369	0.332	0.419	0.087
No adults aged 15+	3.776	3.429	4.350	0.921***	3.776	3.143	4.624	1.481***
Plot characteristics								
Land area	1.128	1.147	1.097	0.050	1.128	1.130	1.126	0.004
Main cropping	0.480	0.483	0.475	0.009	0.480	0.529	0.415	0.114***
Plot distance to home	2.507	2.567	2.408	0.159	2.507	2.687	2.266	0.421***

Table A3 continued
I) Sahel

	Plot by migrant headship				Plot by manager			
	All	Men	Women	Difference	All	Men	Women	Difference
Cost of irrigation (CFA)	78713.67	77394.84	80896.55	3501.71	78713.67	78466.49	79044.08	577.589
Access to credit	0.174	0.185	0.158	0.027	0.174	0.184	0.162	0.022
Labor and Inputs								
Adult laboring men in family	8.693	8.767	8.571	0.195	8.693	8.787	8.568	0.219
Adult laboring women in family	5.906	6.010	5.734	0.276	5.906	6.041	5.725	0.316
Child laborers in family	5.218	5.183	5.276	0.093	5.218	5.305	5.101	0.204
Hired men	3.484	3.432	3.571	0.140	3.484	3.586	3.348	0.238
Hired women	2.921	2.949	2.874	0.076	2.920	2.948	2.884	0.064
Hired child labor	2.983	2.990	2.972	0.018	2.983	2.897	3.098	0.201**
Fertilizer (kg/hectare)	136.380	144.108	123.589	20.520	136.380	141.249	129.871	11.378
Herbicide (kg/hectare)	6.558	5.619	8.113	2.494*	6.558	7.207	5.691	1.515
Seed (kg/hectare)	43.471	47.168	37.354	9.814	43.471	43.062	44.018	0.956
Agricultural tools	453423.8	139178.7	973553.8	834375.1	453423.8	199519.1	792819.6	593300

	Plot by owner			
	All	Men	Women	Difference
Observations	1,583	574	1,009	/
Production and Productivity				
Total	1566679	1374633	1675929	301295.80***
Total/hectare	1772076	1422408	1970845	548437.70***
Rice/hectare	1313061	1239740	1354969	115228.70
Maize/hectare	583765.40	541266.10	594800.70	53534.62
Groundnuts/hectare	809273.10	475651.70	888822.70	413171
Household characteristics				
Age (years)	33.740	29.934	35.915	5.982***
Years of schooling	2.299	2.600	2.127	0.473***
Married	0.632	0.643	0.626	0.017
Unmarried	0.368	0.357	0.374	0.017
Adult women	2.953	3.075	2.883	0.191
Adult men	3.188	3.388	3.074	0.314*
Household size	6.141	6.463	5.957	0.505*
Child dependency	0.691	0.656	0.712	0.055
Non-farm income	104364.50	115947.70	97745.47	18202.23**
Livestock	2.996	2.939	3.028	0.089
Household wealth	116691.70	125290.20	111778.30	13511.86

Head of household	0.500	0.294	0.617	0.323***
No children aged 0-5	0.369	0.474	0.309	0.165***
No adults aged 15+	3.776	4.411	3.414	0.997***
Plot characteristics				
Land area	1.128	1.090	1.150	0.060**
Main cropping	0.480	0.466	0.488	0.022
Plot distance to home (km)	2.507	2.456	2.536	0.081
Cost of irrigation (CFA)	78713.67	76830.78	79789.60	2958.82
Access to credit	0.174	0.173	0.175	0.001

Table A3 continued

I) Sahel

	Plot by owner			
	All	Men	Women	Difference
Labor and Inputs				
Adult laboring men in family	8.693	8.719	8.678	0.041
Adult laboring women in family	5.906	5.818	5.956	0.138
Child laborers in family	5.218	5.007	5.338	0.331
Hired men	3.484	3.345	3.564	0.218
Hired women	2.920	2.803	2.988	0.186
Hired child labor	2.983	2.968	2.992	0.025
Fertilizer (kg/hectare)	136.380	127.172	141.642	14.469
Herbicide (kg/hectare)	6.558	5.178	7.347	2.169
Seed (kg/hectare)	43.471	39.934	45.928	5.559
Agricultural tools	453423.80	811355.40	248891.50	562464

II) Western Highlands

	Plot by headship				Plot by *de jure* headship			
	All	Men	Women	Difference	All	Men	Women	Difference
Observations	1,120	630	490		1,120	657	463	
Production and Productivity								
Total	1515290	1533724	1491590	42134.19	1515290	1479821	1565621	85799.78
Total/hectare	2329127	2429168	2200503	228665.30**	2329127	2285359	2391233	105877.20
Rice/hectare	2151588	2194820	2097770	97050.31	2151588	2109678	2210170	100491.80
Maize/hectare	551330.5	539545.3	586686.1	47140.80	551330.5	605255.0	457347.9	147907.10
Groundnuts/ hectare	924904.8	990594.6	727835.4	262759.20	924904.8	795227.8	1158323.	363095.50
Household characteristics								
Age (years)	35.842	37.450	33.771	3.679***	35.842	36.212	35.303	0.909
Years of schooling	3.391	3.405	3.372	0.034	3.391	3.375	3.413	0.038
Married	0.589	0.579	0.602	0.024	0.589	0.600	0.573	0.027
Unmarried	0.411	0.421	0.398	0.024	0.411	0.400	0.427	0.027
Adult women	2.214	2.180	2.258	0.078	2.214	2.201	2.234	0.032
Adult men	2.632	2.593	2.682	0.089	2.632	2.614	2.659	0.045

Household size	4.846	4.773	4.941	0.167	4.846	4.815	4.892	0.077
Child dependency	0.719	0.729	0.707	0.022	0.719	0.702	0.745	0.043
Non-farm income	79394.61	80482.19	77993.69	2488.50	79394.61	79610.73	79079.70	531.025
Livestock	3.044	3.068	3.013	0.055	3.044	3.048	3.038	0.010
Household wealth	208847	265265.2	136174.4	129090.70	208847.0	248364.3	151266.8	97097.49
Head of household	0.288	0.371	0.180	0.191***	0.288	0.312	0.251	0.061**
No children aged 0-5	0.098	0.089	0.110	0.020	0.098	0.097	0.100	0.003
No adults aged 15+	4.472	4.333	4.651	0.317***	4.472	4.448	4.507	0.059

Table A3 continued
II) Western Highlands

	Plot by headship				Plot by *de jure* headship			
	All	Men	Women	Difference	All	Men	Women	Difference
Plot characteristics								
Land area	0.754	0.742	0.770	0.028	0.754	0.748	0.763	0.015
Main cropping	0.256	0.153	0.388	0.236***	0.256	0.263	0.246	0.018
Plot distance to home	3.263	3.206	3.338	0.132	3.263	3.289	3.225	0.064
Cost of irrigation	79069.46	79061.33	79079.93	18.598	79069.46	78247.26	80267.47	2020.21
Access to credit	0.102	0.108	0.095	0.013	0.102	0.110	0.092	0.018
Labor and Inputs								
Adult laboring men in family	6.071	6.216	5.885	0.332	6.071	6.129	5.988	0.141
Adult laboring women in family	3.218	3.255	3.169	0.086	3.218	3.208	3.232	0.023
Child laborers in family	3.056	3.214	2.853	0.360**	3.056	3.022	3.106	0.084
Hired men	3.734	3.758	3.703	0.055	3.734	3.832	3.591	0.241
Hired women	3.224	3.302	3.125	0.177	3.224	3.197	3.263	0.066
Hired child labor	2.936	2.928	2.946	0.018	2.936	2.881	3.016	0.135
Fertilizer (kg/hectare)	206.645	207.485	205.564	1.921	206.645	205.686	208.043	2.357
Herbicide (kg/hectare)	10.529	12.882	7.497	5.385	10.529	8.960	12.814	3.853
Seed (kg/hectare)	68.821	72.077	64.626	7.452	68.821	68.066	69.921	1.855
Agricultural tools	471393.8	770625.5	85952.23	684673.3	471393.8	701918.2	135500.0	566418.2

	Plot by migrant headship				Plot by manager			
	All	Men	Women	Difference	All	Men	Women	Difference
Observations	1,120	639	481		1,120	576	544	
Production and Productivity								
Total	1515290	1531057	1494344	36713.16	1515290	1545331	1483482	61848.89
Total/hectare	2329127	2383208	2257280	125927.90	2329127	2473456	2176308	297147.70***
Rice/hectare	2151588	2189848	2102523	87324.53	2151588	2235918	2062652	173265.90**

Maize/hectare	551330.5	463437.2	749462.9	286025.7**	551330.5	583873.7	507675.1	76198.52
Groundnuts/hectare	924904.8	1007258	730551.4	276706.50	924904.8	1094648	681359.8	413288.40
Household characteristics								
Age (years)	35.843	36.769	34.596	35.842***	35.842	36.111	35.559	0.551
Years of schooling	3.391	3.346	3.451	0.106	3.391	3.528	3.245	0.283
Married	0.589	0.581	0.600	0.019	0.589	0.552	0.628	0.075***
Unmarried	0.411	0.419	0.400	0.019	0.411	0.448	0.372	0.075***
Adult women	2.214	2.229	2.194	0.035	2.214	2.165	2.267	0.103
Adult men	2.632	2.640	2.621	0.019	2.632	2.560	2.708	0.148
Household size	4.846	4.870	4.815	0.054	4.846	4.725	4.975	0.250

Table A3 continued
II) Western Highlands

	Plot by migrant headship				Plot by manager			
	All	Men	Women	Difference	All	Men	Women	Difference
Child dependency	0.719	0.722	0.715	0.007	0.719	0.717	0.722	0.005
Non-farm income	79394.61	82257.23	75545.06	6712.17	79394.61	77038.59	81880.42	4841.83
Livestock	3.044	3.027	3.067	0.040	3.044	3.090	2.995	0.095
Household wealth	208847	261019.80	138687	122332.80	208847	29047.80	122961.60	167286.20
Head of household	0.288	0.344	0.211	0.133***	0.288	0.358	0.214	0.144***
No children aged 0-5	0.098	0.081	0.122	0.041**	0.098	0.079	0.119	0.039**
No adults aged 15+	4.472	4.394	4.577	0.183	4.472	4.467	4.477	0.011
Plot characteristics								
Land area	0.754	0.743	0.769	0.026	0.754	0.755	0.753	0.003
Main cropping	0.256	0.205	0.324	0.118***	0.256	0.220	0.294	0.074***
Plot distance to home	3.263	3.248	3.284	0.037	3.263	3.146	3.387	0.241
Cost of irrigation (CFA)	79069.46	80327.90	77377.14	2950.76	79069.46	78248.42	79935.73	1687.31
Access to credit	0.102	0.119	0.080	0.039**	0.102	0.120	0.083	0.037**
Labor and Inputs								
Adult laboring men in family	6.071	6.221	5.870	0.350	6.071	6.242	5.891	0.351
Adult laboring women in family	3.218	3.116	3.354	0.238	3.218	3.313	3.117	0.196
Child laborers in family	3.056	3.153	2.926	0.227	3.056	3.019	3.095	0.076
Hired men	3.734	3.739	3.726	0.014	3.734	3.437	4.047	0.610***
Hired women	3.224	3.263	3.171	0.092	3.224	3.248	3.199	0.050
Hired child labor	2.936	2.958	2.906	0.051	2.936	2.978	2.891	0.087
Fertilizer (kg/hectare)	206.645	207.884	204.980	2.904	206.645	199.697	213.976	14.279
Herbicide (kg/hectare)	10.529	10.019	11.214	1.195	10.529	10.494	10.566	0.072
Seed (kg/hectare)	68.821	62.592	77.198	14.606	68.821	69.831	67.755	2.075
Agricultural tools	471393.8	691424.5	175504.9	515919.7	471393.8	813039.2	110926.5	702112.

Table A3 continued
II) Western Highlands

	Plot by owner			
	All	Men	Women	Difference
Observations	1,120	469	651	/
Production and Productivity				
Total	1515290	1498381	1527472	29091.79
Total/hectare	2329127	2243565	2390768	147203.10
Rice/hectare	2151588	2095515	2193084	97569.63
Maize/hectare	551330.50	737430.50	466739.70	270690.80**
Groundnuts/hectare	924904.80	713347.90	1014548	301199.70
Household characteristics				
Age (years)	35.842	34.721	36.643	1.922**
Years of schooling	3.391	3.353	3.418	0.065
Married	0.589	0.585	0.592	0.007
Unmarried	0.411	0.415	0.408	0.007
Adult women	2.214	2.329	2.132	0.197
Adult men	2.632	2.741	2.554	0.186
Household size	4.846	5.070	4.687	0.384**
Child dependency	0.719	0.696	0.735	0.039
Non-farm income	79394.61	83654.89	76350.70	7304.20
Livestock	3.044	3.053	3.038	0.015
Household wealth	208847	378972.80	87294.71	291678.10
Head of household	0.288	0.205	0.347	0.142***
No children aged 0-5	0.098	0.105	0.093	0.012
No adults aged 15+	4.472	4.663	4.336	0.327***
Plot characteristics				
Land area	0.754	0.774	0.740	0.034
Main cropping	0.256	0.363	0.180	0.183***
Plot distance to home (km)	3.263	3.369	3.188	0.182
Cost of irrigation (CFA)	79069.46	80242.69	78231.20	2011.49
Access to credit	0.102	0.088	0.113	0.025
Labor and Inputs				
Adult laboring men in family	6.071	5.838	6.238	0.400**
Adult laboring women in family	3.218	3.131	3.280	0.149
Child laborers in family	3.056	2.850	3.203	0.353**
Hired men	3.734	3.885	3.625	0.260
Hired women	3.224	3.146	3.280	0.134
Hired child labor	2.936	2.922	2.946	0.024
Fertilizer (kg/hectare)	206.645	212.209	202.670	9.539
Herbicide (kg/hectare)	10.529	8.289	12.129	3.840
Seed (kg/hectare)	68.821	64.938	71.595	6.657
Agricultural tools	471393.80	124835.60	719004.30	594168.80

Table A3 continued
III) Bimodal Rainfall Humid Forest

	Plot by headship				Plot by *de jure* headship			
	All	Men	Women	Difference	All	Men	Women	Difference
Observations	193	96	97		193	105	88	
Production and Productivity								
Total	2753437	2691456	2814779	123323	2753437	2648900	2878168	229268.40
Total/hectare	2503152	2454329	2551472	97142.30	2503152	2419907	2602479	182571.40
Rice/hectare	2354476	2252692	2456260	203568.40	2354476	2243625	2489082	245456.70
Maize/hectare	656314.1	1030924	344138.7	686785.70**	656314.1	1217154	291768.2	925385.6***
Groundnuts/hectare	940696.6	887615.5	989694.6	102079.10	940696.6	941752	939993.1	1758.86
Household characteristics								
Age (years)	30.907	33.104	28.652	4.453**	30.907	29.355	32.777	3.422
Years of schooling	3.639	3.748	3.527	0.221	3.639	3.879	3.350	0.530
Married	0.581	0.626	0.536	0.90	0.581	0.653	0.495	0.158***
Unmarried	0.419	0.374	0.464	0.090	0.419	0.347	0.505	0.158***
Adult women	4.035	4.043	4.027	0.017	4.035	3.911	4.184	0.273
Adult men	3.749	3.522	3.982	0.460	3.749	3.863	3.612	0.251
Household size	7.784	7.565	8.009	0.444	7.784	7.774	7.796	0.022
Child dependency	0.588	0.614	0.561	0.053	0.588	0.595	0.579	0.016
Non-farm income	130800	109758.3	152405.4	42647.10**	130800	114852	149999	35146.61**
Livestock	2.802	2.791	2.813	0.021	2.802	2.863	2.728	0.135
Household wealth	88213.48	77419.13	99296.96	21877.83	88213.48	84624.2	92534.56	7910.37
Head of household	0.225	0.191	0.259	0.068	0.225	0.185	0.272	0.086
No children aged 0-5	0.198	0.191	0.205	0.014	0.198	0.194	0.204	0.010
No adults aged 15+	4.128	4.191	4.063	0.129	4.128	4.226	4.010	0.216
Plot characteristics								
Land area	0.964	0.970	0.958	0.011	0.964	0.961	0.968	0.007
Main cropping	0.220	0.026	0.420	0.394***	0.220	0.161	0.291	0.130***
Plot distance to home	3.979	4.214	3.738	0.477	3.979	4.074	3.864	0.210
Cost of irrigation	80647.58	79013.04	82325.89	3312.85	80647.58	78439.5	83305.83	4866.31
Access to credit	0.088	0.096	0.080	0.015	0.088	0.089	0.087	0.001
Labor and Inputs								
Adult laboring men in family	9.313	9.670	8.946	0.723	9.313	9.823	8.699	1.124*
Adult laboring women in family	4.515	4.922	4.098	0.824**	4.515	4.855	4.107	0.748**
Child laborers in family	4.797	4.896	4.696	0.199	4.797	4.976	4.583	0.393
Hired men	4.559	5.348	3.750	1.598**	4.559	5.185	3.806	1.380**
Hired women	3.326	3.443	3.205	0.238	3.326	3.468	3.155	0.312

Table A3 continued
III) Bimodal Rainfall Humid Forest

	Plot by headship				Plot by *de jure* headship			
	All	Men	Women	Difference	All	Men	Women	Difference
Hired child labor	3.348	3.191	3.509	0.318	3.348	3.298	3.408	0.109
Fertilizer (kg/hectare)	220.405	271.413	168.031	103.383	220.41	256.80	176.59	80.20
Herbicide (kg/hectare)	8.963	7.260	10.711	3.451	8.963	6.774	11.597	4.823
Seed (kg/hectare)	66.887	57.255	76.777	19.522	66.887	57.944	77.653	19.710
Agricultural tools	41802.38	26351.65	57666.96	31315.31	41802.38	35228.55	49716.50	14487.96
	Plot by migrant headship				Plot by manager			
	All	Men	Women	Difference	All	Men	Women	Difference
Observations	193	114	79		193	76	117	
Production and Productivity								
Total	2753437	2526479	3080945	554465.30	2753437	2777904	2737543	40361.18
Total/hectare	2503152	2344483	2732118	387634.80	2503152	2529617	2485961	43655.62
Rice/hectare	2354476	2109287	2734015	624727.80**	2354476	2468427	2280862	187565.2
Maize/hectare	656314	833854.9	467676.9	366178	656314	464744.3	797470.7	332726.4
Groundnuts/hectare	940697	1053289	797396.6	255892.90	940697	504480.5	1283438	778957.3
Household characteristics								
Age (years)	30.907	31.031	30.740	0.291	30.907	29.106	32.180	3.074
Years of schooling	3.639	3.664	3.604	0.060	3.639	3.585	3.677	0.092
Married	0.581	0.573	0.594	0.021	0.581	0.628	0.549	0.079
Unmarried	0.419	0.427	0.406	0.021	0.419	0.372	0.451	0.079
Adult women	4.035	3.771	4.396	0.625	4.035	3.628	4.323	0.696
Adult men	3.749	3.649	3.885	0.236	3.749	3.745	3.752	0.007
Household size	7.784	7.420	8.281	0.861	7.784	7.372	8.075	0.703
Child dependency	0.588	0.667	0.480	0.186***	0.588	0.706	0.504	0.202***
Non-farm income	130800	128062.6	134535.4	6472.82	130800	114946	142005	27059.52
Livestock	2.802	3.046	2.469	0.577	2.802	3.053	2.624	0.429
Household wealth	88213.4	71161.91	111481.8	40319.86	88213.4	110011.	72807.2	37204.48
Head of household	0.225	0.198	0.260	0.062	0.225	0.266	0.195	0.070
No children aged 0-5	0.198	0.229	0.156	0.073	0.198	0.245	0.165	0.079
No adults aged 15+	4.128	4.046	4.240	0.194	4.128	4.319	3.992	0.327

Table A3 continued
III) Bimodal Rainfall Humid Forest

	Plot by migrant headship				Plot by manager			
	All	Men	Women	Difference	All	Men	Women	Difference
Plot characteristics								
Land area	0.964	0.973	0.952	0.021	0.964	0.936	0.984	0.048
Main cropping	0.220	0.130	0.344	0.214***	0.220	0.181	0.248	0.067
Plot distance to home (km)	3.979	4.181	3.703	0.478	3.979	4.069	3.915	0.154
Cost of irrigation (CFA)	80647.58	81320.61	79729.17	1591.44	80647.58	77978.72	82533.83	4555.11
Access to credit	0.088	0.084	0.094	0.010	0.088	0.096	0.083	0.013
Labor and Inputs								
Adult laboring men in family	9.313	9.588	8.938	0.650	9.313	9.287	9.331	0.044
Adult laboring women in family	4.515	4.641	4.344	0.297	4.515	4.851	4.278	0.573
Child laborers in family	4.797	4.962	4.573	0.389	4.797	4.957	4.684	0.273
Hired men	4.559	4.985	3.979	1.006	4.559	4.043	4.925	0.882
Hired women	3.326	3.519	3.063	0.457	3.326	3.128	3.466	0.339
Hired child labor	3.348	3.359	3.333	0.025	3.348	3.298	3.383	0.086
Fertilizer (kg/hectare)	220.405	141.834	327.621	185.787	220.405	162.191	261.548	99.357
Herbicide (kg/hectare)	8.963	6.076	12.902	6.826	8.963	10.751	7.699	3.052
Seed (kg/hectare)	66.887	57.121	80.213	23.092	66.887	75.614	60.719	14.896
Agricultural tools	41802.38	52312.14	27460.94	24851.20	41802.38	29974.68	50161.80	20187.1

	Plot by owner			
	All	Men	Women	Difference
Observations	193	93	100	/
Production and Productivity				
Total	2753437	2785311	2723793	61518
Total/hectare	2503152	2528412	2479660	48751.55
Rice/hectare	2354476	2429228	2285889	143338.9
Maize/hectare	656314.1	297903.3	1086407	788503.7***
Groundnuts/hectare	940696.6	905249.6	993867.2	88617.59
Household characteristics				
Age (years)	30.907	29.691	32.051	2.360
Years of schooling	3.639	3.482	3.786	0.305

Married	0.581	0.555	0.607	0.052
Unmarried	0.419	0.445	0.393	0.052
Adult women	4.035	3.991	4.077	0.086
Adult men	3.749	3.882	3.624	0.258
Household size	7.784	7.873	7.701	0.172
Child dependency	0.588	0.548	0.625	0.078
Non-farm income	130800	154992.7	108054.7	46938.03
Livestock	2.802	2.536	3.051	0.515
Household wealth	88213.48	117506	60673.5	56832.5**
Head of household	0.225	0.245	0.205	0.040
No children aged 0-5	0.198	0.173	0.222	0.049
No adults aged 15+	4.128	4.218	4.043	0.175

Table A3 continued
III) Bimodal Rainfall Humid Forest

	Plot by owner			
	All	Men	Women	Difference
Plot characteristics				
Land area	0.964	0.963	0.965	0.003
Main cropping	0.220	0.364	0.085	0.278***
Intercropping system	0.780	0.636	0.915	0.278***
Plot distance to home (km)	3.979	3.701	4.240	0.538
Cost of irrigation (CFA)	80647.583	82604.550	78807.690	3796.853
Access to credit	0.088	0.073	0.103	0.030
Labor and Inputs				
Adult laboring men in family	9.313	9.036	9.573	0.536
Adult laboring women in family	4.515	4.118	4.889	0.771**
Child laborers in family	4.797	4.991	4.615	0.376
Hired men	4.559	3.918	5.162	1.244*
Hired women	3.326	3.409	3.248	0.161
Hired child labor	3.348	3.491	3.214	0.277
Fertilizer (kg/hectare)	220.405	286.737	158.042	128.694
Herbicide (kg/hectare)	8.963	11.417	6.655	4.762
Seed (kg/hectare)	66.887	84.384	50.437	33.947
Agricultural equipment	41802.38	55429.55	28990.51	26439.03

Notes: ***, **, and * indicate significant mean differences at the 1%, 5%, and 10% level, respectively. *Source:* Authors' calculations based on IRAD.

Table A4: Probit (Marginal Effect) Estimates of Likelihood of Smallholder Farming by Gender and Agroecological Zone

Variable	Sahel		Western Highlands		Bimodal Rainfall Humid Forest	
	Men	Women	Men	Women	Men	Women
Age (years)	-0.004	0.008	0.009**	0.001	0.001	0.015
	(0.004)	(0.005)	(0.005)	(0.005)	(0.010)	(0.014)
Age squared	0.005	-0.009	-0.011*	-0.001	0.007	-0.016
	(0.005)	(0.007)	(0.007)	(0.007)	(0.013)	(0.022)
Education (years)	0.0002	0.004	-0.006	-0.011	0.039***	0.012
	(0.007)	(0.009)	(0.007)	(0.008)	(0.017)	(0.021)
Married	0.217	-0.078	0.003	0.050	0.064	-0.139
	(0.238)	(0.180)	(0.287)	(0.278)	(0.156)	(0.153)
Single	0.247	0.009	0.055	0.108	0.074	-0.108
	(0.239)	(0.185)	(0.289)	(0.280)	(0.152)	(0.153)
Widowed	0.144	0.134	0.016	0.035	0.054	-0.088
	(0.265)	(0.202)	(0.299)	(0.293)	(0.155)	(0.072)
No. of children aged ≤ 5 in the household	0.042**	0.077***	0.032	-0.075	0.024	0.144
	(0.023)	(0.025)	(0.053)	(0.053)	(0.088)	(0.100)
No. of adults, aged ≥ 15 in the household	-0.007	-0.015***	0.015*	0.018**	-0.006	-0.031
	(0.005)	(0.006)	(0.009)	(0.010)	(0.025)	(0.031)
Non-farm income	8.92e-08	4.26e-08	2.89e-07**	7.44e-08	1.87e-07	1.19e-07
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Wealth of the household	-2.42e-07***	-1.57e-08	4.04e-08	-1.61e-08	-3.45e-08	-1.22e-07
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Head of the household	0.067	0.099**	0.058	-0.093*	0.129	-0.012
	(0.044)	(0.057)	(0.042)	(0.057)	(0.094)	(0.099)
Pseudo-R^2	0.016	0.031	0.020	0.017	0.061	0.060
Number of observations	1,066	550	693	538	115	112

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.
Source: Authors' calculations based on IRAD.

Table A5: Production Function Estimates by Gender and Agroecological Zone. Dependent Variable: Log (Total Crop Value Per Hectare)

I) Sahel

Variable	Pooled	Plot head		Plot *de jure* head	
		Women	Men	Women	Men
Age (years)	0.014**	0.012	0.014	0.015	0.010
Age squared	-0.011	-0.019	-0.011	-0.011	-0.007
Education (years)	-0.014	-0.002	-0.012	0.014	-0.034*
Married	0.024	-0.035	0.124	0.112	0.009
Household size	-0.003	-0.005	0.002	-0.005	0.0001
Child-dependency ratio	-0.082*	-0.131*	-0.059	-0.074	-0.090*
Livestock	0.001	0.002	0.002	-0.002	0.004
Plot size	-0.459***	-0.358***	-0.511***	-0.421***	-0.496***
Maincropping	0.032	-0.013	0.185**	-0.079	0.105
Plot distance to home	-0.013	-0.018	-0.013	-0.012	-0.017
Cost of irrigation (log)	-0.002	0.031	-0.026	-0.008	-0.003
Adult laboring men in family	0.004	0.006	0.005	-0.010	0.009
Adult laboring women in family	-0.002	0.011	0.011	0.014	-0.008
Child laborers in family	-0.0009	-0.026**	-0.001	-0.022*	-0.002
Hired men	-0.001	0.012	-0.009	-0.006	0.001
Hired women	-0.005	0.003	-0.012	-0.0004	-0.010
Hired child labor	0.003	-0.010	0.010	-0.008	0.007
Fertilizer (kg/hectare) (log)	-0.011	-0.023	-0.003	-0.036	-0.003
Herbicide (kg/hectare) (log)	0.030	0.050	0.013	0.0227	0.037
Seed (kg/hectare) (log)	0.186***	0.104	0.193***	0.250***	0.154***
Agricultural tools(log)	0.006	0.024	0.003	0.010	0.009
Mill's ratio	0.998***	1.483***	0.583	0.914*	1.078**
Number of observations	1,580	537	1,043	600	980
R-squared	0.315	0.355	0.363	0.379	0.319

Table A5 continued
I) Sahel

Variable	Plot migrant head		Plot manager		Plot owner	
	Women	Men	Women	Men	Women	Men
Age (years)	0.005	0.018**	0.013	0.015	0.009	0.015*
Age squared	0.001	-0.017*	-0.011	-0.016	-0.010	-0.013
Education (years)	-0.006	-0.022	-0.019	-0.002	-0.003	-0.013
Married	0.066	-0.005	0.093	-0.001	-0.015	0.110
Household size	0.0003	-0.005	-0.002	0.0001	-0.009	0.001
Child-dependency ratio	-0.060	-0.096*	-0.083*	-0.103	-0.084	-0.078
Livestock	0.008	-0.001	-0.005	0.008	0.002	0.001
Plot size	-0.471***	-0.456***	-0.544***	-0.309***	-0.377***	-0.531***
Maincropping	-0.107	0.136*	0.185*	-0.140*	0.000	0.098
Plot distance to home	-0.020	-0.010	-0.012	-0.013	-0.015	-0.013
Cost of irrigation (log)	0.028	-0.010	-0.004	-0.008	-0.006	-0.011
Adult laboring men in family	-0.003	0.008	0.007	0.003	0.009	0.002
Adult laboring women in family	0.006	-0.005	-0.011	0.005	-0.0003	-0.003
Child laborers in family	-0.006	-0.011	0.000	-0.020*	-0.017	-0.005
Hired men	0.009	-0.002	-0.012	0.011	0.008	-0.010
Hired women	0.003	-0.015	-0.012	-0.0001	0.001	-0.007
Hired child labor	-0.015	0.016	0.026	-0.011	-0.016	0.013
Fertilizer (kg/hectare) (log)	-0.087*	0.041	-0.026	0.009	-0.041	-0.006
Herbicide (kg/hectare) (log)	0.035	0.027	0.019	0.044	0.019	0.030
Seed (kg/hectare) (log)	0.159*	0.0175***	0.186***	0.176**	0.206***	0.159**
Agricultural tools (log)	0.005	0.012	0.013	0.004	0.015	0.009
Mill's ratio	1.021**	1.134**	0.795*	1.261***	1.539***	0.708
Number of observations	598	982	907	673	572	1,008
R-squared	0.338	0.361	0.357	0.371	0.331	0.355

Table A5 continued
II) Western Highlands

Variable	Pooled	Plot head		Plot *de jure* head	
		Women	Men	Women	Men
Age (years)	0.007	0.014	0.001	0.013	0.001
Age squared	-0.008	-0.018	-0.001	-0.013	-0.003
Education (years)	0.009	0.021	0.003	0.010	0.010
Married	-0.012	-0.004	-0.024	0.012	-0.026
Household size	0.016**	0.017*	0.018*	0.019*	0.017*
Child-dependency ratio	-0.013	-0.021	-0.0001	-0.036	0.019
Livestock	-0.005	-0.029**	0.007	-0.005	-0.002
Plot size	-0.433***	-0.528***	-0.364***	-0.409**	-0.422***
Maincropping	-0.002	-0.009	0.148	-0.043	0.000
Plot distance to home	-0.004	-0.0004	-0.007	-0.011	0.002
Cost of irrigation (log)	-0.023	-0.011	-0.028	-0.028	-0.018
Adult laboring men in family	0.002	-0.0004	0.005	0.006	-0.003
Adult laboring women in family	-0.014	-0.016	-0.014	-0.019	-0.007
Child laborers in family	-0.012	0.0003	-0.023*	-0.017	-0.007
Hired men	0.011	0.006	0.013	0.011	0.012
Hired women	0.006	-0.002	0.015*	-0.006	0.012
Hired child labor	-0.001	-0.017	0.011	-0.002	-0.004
Fertilizer (kg/hectare) (log)	0.011	-0.040	0.063	0.029	-0.004
Herbicide (kg/hectare) (log)	0.013	-0.004	0.023	-0.030	0.060*
Seed (kg/hectare) (log)	0.108**	0.098	0.094*	0.141*	0.070
Agricultural tools(log)	0.014	0.012	0.013	0.005	0.015
Mill's ratio	-0.669*	-0.346	-0.820	-0.865	-0.680
Number of observations	1,126	491	635	464	662
R-squared	0.330	0.352	0.354	0.315	0.381

Variable	Plot migrant head		Plot manager		Plot owner	
	Women	Men	Women	Men	Women	Men
Age (years)	0.013	0.002	0.015	0.002	0.008	0.007
Age squared	-0.016	-0.002	-0.018	-0.002	-0.010	-0.008
Education (years)	0.019	0.003	0.008	0.007	0.018	0.003
Married	-0.003	-0.016	-0.039	-0.001	-0.006	-0.031
Household size	0.013	0.019*	0.019*	0.017*	0.016*	0.018*
Child-dependency ratio	-0.031	0.0001	0.018	-0.027	-0.033	0.005
Livestock	-0.012	-0.003	-0.009	-0.002	-0.028*	0.009
Plot size	-0.503***	-0.393***	-0.479***	-0.393**	-0.528***	-0.370***
Maincropping	0.018	0.019	0.118	-0.060	-0.042	0.088
Intercropping	0.000	0.000	0.000	0.000	0.000	0.000
Plot distance to home	-0.006	-0.003	-0.014	0.002	-0.003	-0.003
Cost of irrigation (log)	0.002	-0.045	-0.014	-0.035	-0.0003	-0.036
Adult laboring men in family	0.003	0.0003	-0.001	0.004	-0.014	0.012
Adult laboring women in family	-0.026*	-0.001	-0.020	-0.010	-0.008	-0.022*
Child laborers in family	-0.007	-0.019	-0.017	-0.008	0.009	-0.027**
Hired men	0.014	0.008	0.017	0.006	0.015*	0.007
Hired women	-0.003	0.014	0.002	0.010	-0.006	0.020**
Hired child labor	-0.025	0.017	0.002	-0.006	-0.010	0.010

Table A5 continued
II) Western Highlands

Variable	Plot migrant head		Plot manager		Plot owner	
	Women	Men	Women	Men	Women	Men
Fertilizer (kg/hectare) (log)	-0.013	0.026	0.026	-0.007	-0.015	0.030
Herbicide (kg/hectare) (log)	0.000	0.024	0.032	-0.009	-0.002	0.027
Seed (kg/hectare) (log)	0.108*	0.098*	0.111*	0.106*	0.111	0.096*
Agricultural tools (log)	0.016	0.008	0.008	0.018	0.032*	-0.001
Mill's ratio	-1.074*	-0.375	-0.412*	-0.878*	-0.275	-0.784
Number of observations	481	645	577	549	470	656
R-squared	0.343	0.344	0.375	0.314	0.350	0.362

III) Bimodal rainfall humid forest

Variable	Pooled	Plot head		Plot *de jure* head	
		Women	Men	Women	Men
Age (years)	-0.008	0.001	-0.014	0.015	-0.016
Age squared	0.011	-0.005	0.026	-0.021	0.039
Education (years)	-0.054	-0.001	-0.069	0.024	-0.100**
Married	0.099	0.279	-0.148	0.327	-0.342
Household size	-0.028*	-0.020	-0.021	-0.039	-0.022
Child-dependency ratio	-0.213	-0.069	-0.298	-0.168	-0.228
Livestock	0.010	-0.036	0.052	-0.020	0.014
Plot size	-0.129	0.019	-0.355	-0.001	-0.183
Maincropping	0.048	0.276	0.000	0.454*	0.000
Plot distance to home	0.021	0.123**	0.004	0.094	0.010
Cost of irrigation (log)	-0.036	-0.049	-0.099	-0.066	-0.103
Access to credit	-0.122	0.409	-0.445	0.114	-0.0350
Adult laboring men in family	-0.046**	-0.058*	-0.037*	-0.056	-0.049**
Adult laboring women in family	0.053*	0.048	0.043	0.053	0.033
Child laborers in family	-0.060**	-0.045	-0.072*	-0.076*	-0.040
Hired men	0.008	0.051	0.004	0.038	0.001
Hired women	0.008	0.009	0.027	-0.003	0.030
Hired child labor	0.044*	0.059**	0.046	0.058*	0.022
Fertilizer (kg/hectare) (log)	-0.119	-0.126	-0.120	-0.155	-0.056
Herbicide (kg/hectare) (log)	-0.132	-0.126	-0.166	-0.208	-0.074
Seed (kg/hectare) (log)	0.070	0.073	-0.022	0.104	-0.152
Agricultural equipment (log)	-0.029	0.081	-0.023	0.109	-0.136*
Mill's ratio	0.706	2.712	-2.218	3.158	-1.014
Number of observations	186	95	91	86	100
R-squared	0.296	0.380	0.488	0.392	0.501

Table A5 continued
III) Bimodal rainfall humid forest

Variable	Plot migrant head		Plot manager		Plot owner	
	Women	Men	Women	Men	Women	Men
Age (years)	-0.003	-0.021	0.005	0.007	0.015	-0.006
Age squared	0.007	0.029	-0.015	-0.001	-0.029	0.022
Education (years)	-0.039	-0.074	-0.067	-0.055	-0.014	-0.042
Married	0.189	0.167	0.276	0.168	0.368	-0.229
Household size	-0.031	-0.020	0.011	-0.065***	-0.009	-0.023
Child-dependency ratio	-0.353	-0.094	0.223	-0.626*	0.005	-0.231
Livestock	-0.012	0.051	-0.028	-0.010	-0.075	0.025
Plot size	0.142	-0.325	0.030	-0.353	0.141	-0.320
Maincropping	0.065	0.005	0.122	0.000	0.220	-0.382
Plot distance to home	0.0002	0.014	0.032	0.006	0.083	-0.009
Cost of irrigation (log)	-0.007	-0.075	0.040	-0.053	0.003	-0.034
Adult laboring men in family	-0.097***	-0.019	-0.036	-0.043*	-0.026	-0.050**
Adult laboring women in family	0.033	0.066	0.072*	0.050	0.035	0.050
Child laborers in family	0.015	-0.081**	-0.041	-0.085**	-0.058*	-0.061
Hired men	0.027	0.008	0.040	0.0003	0.018	0.015
Hired women	-0.004	0.034	0.013	0.037	-0.005	0.054
Hired child labor	0.031	0.030	0.056*	0.032	0.040	0.074
Fertilizer (kg/hectare) (log)	-0.194	-0.080	-0.357*	-0.047	-0.204	-0.135
Herbicide (kg/hectare) (log)	-0.026	-0.167	0.001	-0.235*	-0.147	-0.163
Seed (kg/hectare) (log)	0.206	-0.012	0.227	-0.105	0.073	-0.035
Agricultural equipment (log)	-0.093	0.006	-0.086	0.052	-0.028	-0.024
Mill's ratio	0.543	0.047	2.808	-1.001	3.493*	-2.401
Number of observations	78	108	75	111	91	95
R-squared	0.481	0.377	0.453	0.396	0.388	0.504

Note. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively; district fixed-effects.
Source: Authors' calculations based on IRAD.

Table A6: Panels A-B. Decomposition of Gender Disparities in Productivity By Gender and Agroecological Zone

I) Sahel

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
A. Aggregate decomposition					
Gender disparities	0.165***	0.031***	0.074***	-0.120***	0.155***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Endowment effect	-0.030***	-0.006**	-0.004	0.056***	-0.025***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Share of gender disparities	-18.2%	-19.4%	-5.4%	-46.7%	-16.1%
Men's structural advantage	0.066***	0.014***	0.030***	-0.099***	0.066***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Share of gender disparities	40.0%	45.2%	40.5%	82.5%	42.6%
Women's structural disadvantage	0.129***	0.022***	0.049***	-0.077***	0.114***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Share of gender disparities	78.2%	71.0%	66.2%	64.2%	73.5%
Number observations	1,580	1,580	1,580	1,580	1,580
B. Detailed Decomposition					
B1. Endowment Effect					
Age (years)	0.122***	0.001	0.047***	-0.050***	0.084***
	(0.004)	(0.002)	(0.002)	(0.002)	(0.004)
Age squared	-0.073***	0.002**	-0.027***	0.030***	-0.050***
	(0.004)	(0.001)	(0.002)	(0.002)	(0.003)
Education (years)	0.008***	0.003***	0.004***	-0.0001	0.006***
	(0.001)	(0.0003)	(0.0004)	(0.0002)	(0.001)
Married	0.0003***	-0.001***	-0.001***	0.0002**	-0.0003
	(0.0001)	(0.0003)	(0.0002)	(0.0001)	(0.002)
Household size	0.003**	0.000	0.000	-0.004***	0.002***
	(0.001)	(0.0002)	(0.0002)	(0.001)	(0.0004)
Child-dependency ratio	-0.008***	-0.003***	-0.002***	0.012***	-0.005***
	(0.0004)	(0.0003)	(0.0003)	(0.001)	(0.0003)
Livestock	0.0004**	0.0001	0.0003	-0.0002	0.0001
	(0.0002)	(0.0001)	(0.0002)	(0.0002)	(0.0001)
Plot size	-0.019***	-0.003	-0.023***	0.002	-0.028***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Maincropping	0.457***	-0.260***	0.102***	-1.354***	0.260***
	(0.032)	(0.026)	(0.020)	(0.072)	(0.024)
Plot distance to home	-0.004***	-0.004***	-0.002***	0.006***	-0.001***
	(0.0003)	(0.0003)	(0.0002)	(0.0004)	(0.0003)
Cost of irrigation (log)	-0.0001	0.000	0.0001	0.000	-0.0002
	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0002)
Adult laboring men in family	-0.001***	0.0004**	0.001***	-0.001***	-0.0002
	(0.0001)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Adult laboring women in family	-0.001***	-0.0004**	-0.001***	0.001***	-0.0003
	(0.0002)	(0.0002)	(0.0003)	(0.0002)	(0.0002)

Table A6 continued
I) Sahel

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
Child laborers in family	-0.001***	-0.004***	0.001***	0.002***	-0.003***
	(0.0002)	(0.0003)	(0.0002)	(0.0002)	(0.0003)
Hired men	-0.0001	-0.0001	0.0001	0.0001	-0.0001
	(0.0002)	(0.0002)	(0.0001)	(0.0002)	(0.0002)
Hired women	-0.0003***	0.001***	-0.0004***	0.0003***	-0.001***
	(0.0001)	(0.0002)	(0.0001)	(0.0001)	(0.0002)
Hired child labor	0.000	0.001***	0.0001	0.001***	0.0001
	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0001)
Fertilizer (kg/hectare) (log)	0.0004**	-0.0001	-0.0001	-0.001***	0.0004**
	(0.0002)	(0.0002)	(0.0002)	(0.0001)	(0.0002)
Herbicide (kg/hectare) (log)	-0.0002	0.003***	-0.003***	-0.001***	-0.002***
	(0.0002)	(0.0003)	(0.0003)	(0.0002)	(0.0002)
Seed (kg/hectare) (log)	0.009***	0.005***	0.013***	0.005***	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Agricultural tools (log)	-0.000	0.001***	-0.001***	0.0002**	-0.0004**
	(0.0002)	(0.0002)	(0.0002)	(0.0001)	(0.0002)
Mill's ratio	-0.037***	0.0001	-0.009***	0.049***	-0.025***
	(0.001)	(0.001)	(0.001)	(0.0001)	(0.001)
B2. Men's Structural Advantage					
Age (years)	-0.001	-0.156***	0.145***	0.029	0.030**
	(0.015)	(0.015)	(0.016)	(0.021)	(0.014)
Age squared	0.003	0.062***	-0.088***	-0.052***	-0.019***
	(0.008)	(0.007)	(0.009)	(0.011)	(0.008)
Education (years)	0.003	-0.047***	-0.020***	0.026***	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Married	0.059***	-0.005**	-0.014***	-0.012***	0.058***
	(0.003)	(0.003)	(0.003)	(0.004)	(0.002)
Household size	0.027***	0.022***	-0.012***	0.024***	0.024***
	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Child-dependency ratio	0.015***	-0.003	-0.008***	-0.011***	0.005**
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)
Livestock	0.001	0.009***	-0.008***	0.018***	-0.0003
	(0.002)	(0.002)	(0.001)	(0.003)	(0.001)
Plot size	-0.061***	-0.041***	0.004	0.171***	-0.082***
	(0.004)	(0.004)	(0.004)	(0.007)	(0.004)
Maincropping	-5.860***	0.072	-0.057	-4.930***	-5.799***
	(0.459)	(0.395)	(0.423)	(0.341)	(0.419)
Plot distance to home	0.001	-0.009***	0.011***	0.002	0.003***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)
Cost of irrigation (log)	-0.275***	-0.007	-0.077***	-0.061***	-0.095***
	(0.015)	(0.018)	(0.016)	(0.022)	(0.018)

Table A6 continued
I) Sahel

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
Adult laboring men in family	0.011***	0.039***	0.034***	-0.015***	-0.018***
	(0.003)	(0.003)	(0.003)	(0.005)	(0.003)
Adult laboring women in family	-0.055***	-0.037***	-0.021***	0.040***	-0.006**
	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)
Child laborers in family	0.042***	0.029***	-0.015***	-0.061***	0.015***
	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)
Hired men	-0.030***	0.006***	-0.005**	0.037***	-0.033***
	(0.002)	(0.002)	(0.002)	(0.004)	(0.002)
Hired women	-0.019***	-0.015***	-0.029***	0.014***	-0.005**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Hired child labor	0.021***	0.013***	0.038***	-0.043***	0.031***
	(0.002)	(0.002)	(0.002)	(0.004)	(0.002)
Fertilizer (kg/hectare) (log)	0.037***	0.036***	0.227***	0.089***	0.023***
	(0.008)	(0.009)	(0.010)	(0.015)	(0.009)
Herbicide (kg/hectare) (log)	-0.016***	0.006***	-0.003	0.012***	-0.0004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
Seed (kg/hectare) (log)	0.031***	-0.105***	-0.029***	-0.027	-0.086***
	(0.009)	(0.009)	(0.010)	(0.018)	(0.011)
Agricultural tools (log)	-0.027***	0.021***	0.043***	-0.027***	0.015***
	(0.006)	(0.007)	(0.008)	(0.011)	(0.007)
Mill's ratio	-0.373***	0.028	0.083***	0.214***	-0.331***
	(0.023)	(0.022)	(0.024)	(0.032)	(0.025)
B3. Women's Structural Disadvantage					
Age (years)	0.062***	-0.012	0.296***	0.051***	0.155***
	(0.021)	(0.025)	(0.023)	(0.019)	(0.020)
Age squared	0.077***	-0.004	-0.156***	-0.011	-0.021**
	(0.011)	(0.014)	(0.012)	(0.009)	(0.011)
Education (years)	-0.031***	-0.067***	-0.018***	0.012***	-0.026***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Married	0.029***	-0.062***	-0.031***	-0.047***	0.021***
	(0.004)	(0.006)	(0.005)	(0.003)	(0.004)
Household size	0.015***	0.007**	-0.023***	-0.008**	0.033***
	(0.005)	(0.004)	(0.004)	(0.003)	(0.005)
Child-dependency ratio	0.030***	-0.008**	-0.017***	-0.002	-0.001
	(0.004)	(0.004)	(0.004)	(0.002)	(0.003)
Livestock	-0.0003	0.009***	-0.018***	0.019***	-0.001
	(0.004)	(0.003)	(0.003)	(0.001)	(0.003)
Plot size	-0.117***	-0.044***	0.012***	0.095***	-0.090***
	(0.009)	(0.007)	(0.007)	(0.005)	(0.008)
Maincropping	5.403***	5.866***	0.103	6.284***	-0.573
	(0.378)	(0.392)	(0.382)	(0.454)	(0.404)
Plot distance to home	0.009***	-0.005**	0.016***	-0.006***	0.002
	(0.003)	(0.003)	(0.003)	(0.001)	(0.003)

Table A6 continued
I) Sahel

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
Cost of irrigation (log)	-0.372***	0.060**	-0.328***	0.019	0.041**
	(0.026)	(0.030)	(0.023)	(0.015)	(0.029)
Adult laboring men in family	-0.015***	0.122***	0.060***	-0.020***	-0.036***
	(0.006)	(0.006)	(0.005)	(0.004)	(0.006)
Adult laboring women in family	-0.073***	-0.092***	-0.046***	0.052***	-0.010***
	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)
Child laborers in family	0.087***	0.070***	-0.010***	-0.041***	0.045***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.004)
Hired men	-0.039***	0.018***	-0.033***	0.040***	-0.029***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Hired women	-0.019***	-0.014***	-0.022***	0.020***	-0.015***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Hired child labor	0.039***	0.032***	0.054***	-0.067***	0.057***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.004)
Fertilizer (kg/hectare) (log)	0.046***	0.107***	0.329***	0.064***	0.128***
	(0.016)	(0.016)	(0.017)	(0.010)	(0.017)
Herbicide (kg/hectare) (log)	-0.019***	0.003	-0.004	0.011***	0.011***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Seed (kg/hectare) (log)	0.305***	-0.233***	0.086***	-0.007	-0.080***
	(0.017)	(0.021)	(0.021)	(0.012)	(0.023)
Agricultural tools(log)	-0.154***	-0.027***	0.018	-0.052***	-0.075***
	(0.012)	(0.011)	(0.013)	(0.009)	(0.012)
Mill's ratio	-0.457***	0.132***	0.027	0.243***	-0.488***
	(0.030)	(0.033)	(0.030)	(0.029)	(0.036)

II) Western Highlands

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
A. Aggregate decomposition					
Gender disparities	0.042***	-0.038***	0.026***	-0.051***	0.012***
	(0.006)	(0.006)	(0.005)	(0.004)	(0.006)
Endowment effect	-0.030***	-0.029***	-0.017***	0.037***	-0.036***
	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)
Share of gender disparities	-71.4%	76.3%	-65.4%	-72.5%	-300.0%
Men's structural advantage	0.034***	-0.006***	0.020***	-0.046***	0.023***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Share of gender disparities	81.0%	15.8%	76.9%	90.2%	191.7%
Women's structural disadvantage	0.0378***	-0.003	0.023***	-0.042***	0.025***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Share of gender disparities	90.5%	7.9%	88.5%	82.4%	208.3%
Number observations	1,126	1,126	1,126	1,126	1,126

Table A6 continued
II) Western Highlands

	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
B. Detailed decomposition					
B1. Endowment effect					
Age (years)	0.026***	0.006***	0.015***	-0.005***	0.014***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Age squared	-0.023***	-0.002***	-0.012***	0.005***	-0.012***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Education (years)	0.0003	-0.0003	-0.001***	-0.002***	0.001**
	(0.0002)	(0.0002)	(0.0002)	(0.0004)	(0.0003)
Married	0.0003	-0.0003	0.0002	-0.001***	-0.0001
	(0.0002)	(0.0002)	(0.0002)	(0.0004)	(0.0002)
Household size	-0.003***	-0.001***	0.001***	0.004***	-0.006***
	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Child-dependency ratio	-0.0003	0.001***	-0.0001	-0.000	-0.001***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Livestock	-0.0003	-0.0001	0.0001	0.0004**	-0.000
	(0.0002)	(0.0002)	(0.0001)	(0.0002)	(0.0001)
Plot size	0.013***	0.007***	0.012***	0.001***	0.015***
	(0.001)	(0.001)	(0.001)	(0.0002)	(0.001)
Maincropping	0.000	0.000	0.000	0.000	0.000
	(0.170)	(0.031)	(0.097)	(0.056)	(0.141)
Plot distance to home	0.001***	-0.0002**	0.0002**	-0.001***	0.001***
	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0002)
Cost of irrigation (log)	0.0002	0.001***	-0.001***	0.0001	0.001***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Adult laboring men in family	0.001***	0.0002	0.001***	-0.001***	0.001**
	(0.0002)	(0.0002)	(0.0003)	(0.0003)	(0.0003)
Adult laboring women in family	-0.001***	0.0003	0.003***	0.003***	-0.002***
	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
Child laborers in family	-0.005***	0.001***	-0.003***	-0.001***	-0.004***
	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0004)
Hired men	0.001**	0.003***	0.0002	0.007***	-0.003***
	(0.0003)	(0.0004)	(0.0003)	(0.001)	(0.0003)
Hired women	0.001***	-0.0002	0.001***	-0.001***	0.001***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Hired child labor	0.000	0.0001	-0.0001	0.0001	-0.000
	(0.0001)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Fertilizer (kg/hectare) (log)	0.001***	0.001***	0.001***	0.0002	0.001**
	(0.0002)	(0.0002)	(0.0003)	(0.0002)	(0.0003)
Herbicide (kg/hectare) (log)	0.001***	-0.001***	-0.001	0.0002	0.001***
	(0.0002)	(0.0001)	(0.0002)	(0.0002)	(0.0002)
Seed (kg/hectare) (log)	0.000	-0.002***	-0.007***	0.0001	0.003***
	(0.0004)	(0.001)	(0.001)	(0.0001)	(0.001)
Agricultural tools (log)	0.004***	0.001***	0.003***	0.001***	0.003***
	(0.0003)	(0.0002)	(0.0003)	(0.0002)	(0.0003)
Mill's ratio	0.027***	0.021***	0.014***	-0.016***	0.018***
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)

Table A6 continued
II) Western Highlands

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
B2. Men's Structural Advantage					
Age (years)	-0.250***	-0.220***	-0.201***	-0.194***	-0.003
	(0.021)	(0.016)	(0.020)	(0.016)	(0.016)
Age squared	0.128***	0.087***	0.110***	0.092***	0.003
	(0.012)	(0.009)	(0.011)	(0.010)	(0.009)
Education (years)	-0.018***	0.004	-0.020***	-0.005**	-0.017***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)
Married	-0.007***	-0.009***	-0.002	0.007**	-0.012***
	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)
Household size	0.011***	0.005**	0.015***	0.005	0.009***
	(0.002)	(0.003)	(0.002)	(0.003)	(0.003)
Child-dependency ratio	0.009***	0.022***	0.009***	-0.010***	0.013***
	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Livestock	0.037***	0.007***	0.007***	0.010***	0.041***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Plot size	0.052***	0.009**	0.030***	0.030***	0.047***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Maincropping	0.000	3.880***	3.036***	0.000	2.670***
	(0.152)	(0.259)	(0.215)	(0.278)	(0.179)
Plot distance to home	-0.010***	0.019***	0.001	0.020***	0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Cost of irrigation (log)	-0.052***	0.052***	-0.240***	-0.128***	-0.139***
	(0.017)	(0.019)	(0.016)	(0.021)	(0.017)
Adult laboring men in family	0.024***	-0.026***	-0.008**	0.012***	0.067***
	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)
Adult laboring women in family	0.0001	0.021***	0.040***	0.011***	-0.028***
	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Child laborers in family	-0.033***	0.016***	-0.019***	0.015***	-0.048***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)
Hired men	0.009***	0.004**	-0.009***	-0.017***	-0.013***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)
Hired women	0.028***	0.020***	0.026***	0.011***	0.045***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Hired child labor	0.036***	-0.010***	0.053***	-0.014***	0.031***
	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)
Fertilizer (kg/hectare) (log)	0.247***	-0.073***	0.069***	-0.088***	0.091***
	(0.013)	(0.012)	(0.013)	(0.013)	(0.011)
Herbicide (kg/hectare) (log)	0.013***	0.061***	0.015***	-0.029***	0.019***
	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Seed (kg/hectare) (log)	-0.055***	-0.146***	-0.038***	-0.009	-0.046***
	(0.013)	(0.013)	(0.011)	(0.015)	(0.013)
Agricultural tools (log)	-0.007	0.011***	-0.050***	0.041***	-0.132***
	(0.007)	(0.007)	(0.007)	(0.009)	(0.007)
Mill's ratio	-0.156***	-0.012	0.307***	-0.223***	-0.119***
	(0.034)	(0.028)	(0.030)	(0.038)	(0.035)

Table A6 continued
II) Western Highlands

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
B3. Women's Structural Disadvantage					
Age (years)	-0.238***	-0.208***	-0.212***	-0.262***	-0.032
	(0.021)	(0.024)	(0.022)	(0.019)	(0.024)
Age squared	0.136***	0.065***	0.119***	0.150***	0.026**
	(0.012)	(0.013)	(0.013)	(0.011)	(0.013)
Education (years)	-0.044***	-0.006	-0.036***	0.001	-0.031***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.004)
Married	-0.005**	-0.014***	-0.006	0.015***	-0.004
	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)
Household size	-0.003	-0.017***	0.013***	-0.016***	-0.0004
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)
Child-dependency ratio	0.006	0.018***	0.013***	-0.022***	0.014***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Livestock	0.074***	0.0003	0.022***	0.012***	0.070***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)
Plot size	0.073***	-0.019***	0.054***	0.034***	0.074***
	(0.007)	(0.008)	(0.008)	(0.007)	(0.008)
Maincropping	-5.698***	0.000	0.000	-3.057***	-5.135***
	(0.442)	(0.253)	(0.352)	(0.227)	(0.384)
Plot distance to home	-0.010***	0.025***	0.009***	0.031***	-0.003
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)
Cost of irrigation (log)	-0.126***	0.058***	-0.273***	-0.097***	-0.246***
	(0.024)	(0.027)	(0.023)	(0.021)	(0.026)
Adult laboring men in family	0.011***	-0.025***	-0.006	0.015***	0.088***
	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)
Adult laboring women in family	0.007***	0.018***	0.040***	0.020***	-0.019***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Child laborers in family	-0.036***	0.014***	-0.015***	0.013***	-0.061***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Hired men	0.018***	-0.002	-0.013***	-0.022***	-0.019***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Hired women	0.025***	0.040***	0.028***	0.012***	0.037***
	(0.002)	(0.003)	(0.003)	(0.002)	(0.003)
Hired child labor	0.047***	0.003	0.070***	-0.009***	0.026***
	(0.004)	(0.003)	(0.004)	(0.002)	(0.004)
Fertilizer (kg/hectare) (log)	0.242***	-0.082***	0.112***	-0.070***	0.125***
	(0.013)	(0.015)	(0.018)	(0.012)	(0.015)
Herbicide (kg/hectare) (log)	0.021***	0.057***	0.017***	-0.025***	0.019***
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)
Seed (kg/hectare) (log)	0.040***	-0.127***	0.0001	-0.010	-0.011
	(0.017)	(0.019)	(0.016)	(0.015)	(0.017)
Agricultural tools (log)	0.018**	0.077***	-0.024***	0.053***	-0.164***
	(0.010)	(0.011)	(0.009)	(0.008)	(0.010)
Mill's ratio	-0.347***	0.210***	0.431***	-0.268***	-0.421***
	(0.035)	(0.038)	(0.037)	(0.036)	(0.044)

Table A6 continued
III) Bimodal Rainfall Humid Forest

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
A. Aggregate decomposition					
Gender disparities	-0.079***	-0.043***	-0.206***	0.065***	-0.042***
	(0.014)	(0.015)	(0.017)	(0.017)	(0.016)
Endowment effect	-0.024***	-0.057***	-0.014	0.034***	-0.022**
	(0.011)	(0.010)	(0.012)	(0.009)	(0.010)
Share of gender disparities	30.4%	132.6%	6.8%	52.3%	52.4%
Men's structural advantage	-0.015***	0.010	-0.075***	-0.008	-0.028***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.006)
Share of gender disparities	19.0%	-23.3%	36.4%	-12.3%	66.7%
Women's structural disadvantage	-0.040***	0.004	-0.117***	0.039***	0.008
	(0.006)	(0.008)	(0.010)	(0.010)	(0.007)
Share of gender disparities	50.6%	-9.3%	56.8%	60.0%	-19.0%
Number observations	186	186	186	186	186
B. Detailed decomposition					
B1. Endowment effect					
Age (years)	-0.039***	0.026***	-0.007	-0.031***	-0.022***
	(0.011)	(0.010)	(0.005)	(0.010)	(0.008)
Age squared	0.044***	-0.027***	0.009	0.023***	0.025***
	(0.012)	(0.009)	(0.005)	(0.008)	(0.009)
Education (years)	-0.011***	-0.028***	0.002	0.002	-0.016***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Married	0.009***	0.016***	-0.002**	-0.006***	0.005***
	(0.002)	(0.003)	(0.001)	(0.002)	(0.001)
Household size	0.008***	-0.003	0.019***	-0.025***	0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Child-dependency ratio	-0.012***	-0.004**	-0.041***	0.043***	-0.018***
	(0.002)	(0.002)	(0.004)	(0.004)	(0.003)
Livestock	-0.002**	0.0002	0.005***	-0.005***	0.004***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)
Plot size	-0.003	-0.001	-0.004**	-0.008***	-0.002
	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)
Maincropping	-6.158***	-1.876***	-3.164***	1.090***	-4.282***
	(0.311)	(0.086)	(0.174)	(0.070)	(0.218)
Plot distance to home	0.012***	0.006***	0.012***	-0.002**	0.013***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Cost of irrigation (log)	0.003***	0.007***	0.002**	-0.001	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Adult laboring men in family	-0.041***	-0.058***	-0.038***	-0.010***	-0.031***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Adult laboring women in family	0.045***	0.041***	0.015***	-0.033***	0.042***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)
Child laborers in family	-0.015***	-0.027***	-0.030***	0.011***	0.021***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Hired men	0.013***	0.011***	0.008***	0.007***	0.010***
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Hired women	0.001	0.002**	0.003***	0.001	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Hired child labor	-0.019***	-0.009***	-0.001	0.002	-0.017***
	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)
Fertilizer (kg/hectare) (log)	0.004	0.011***	0.026***	0.015***	0.003
	(0.003)	(0.002)	(0.003)	(0.002)	(0.002)

Table A6 continued
III) Bimodal Rainfall Humid Forest

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
Herbicide (kg/hectare) (log)	0.001	0.026***	0.020***	0.019***	-0.017***
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)
Seed (kg/hectare) (log)	-0.009***	-0.010***	0.006***	-0.002	-0.011***
	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
Agricultural tools (log)	-0.004***	-0.013***	0.002	0.002**	-0.003***
	(0.001)	(0.003)	(0.002)	(0.001)	(0.001)
Mill's ratio	0.023***	0.015***	-0.001	-0.002	0.019***
	(0.004)	(0.003)	(0.002)	(0.002)	(0.004)
B2. Men's Structural Advantage					
Age (years)	-0.190***	-0.247***	-0.401***	0.504***	0.073
	(0.088)	(0.076)	(0.061)	(0.063)	(0.088)
Age squared	0.215***	0.321***	0.231***	-0.157***	0.159***
	(0.052)	(0.039)	(0.035)	(0.037)	(0.046)
Education (years)	-0.055***	-0.176***	-0.073***	-0.004	0.045***
	(0.017)	(0.015)	(0.013)	(0.011)	(0.016)
Married	-0.157***	-0.293***	0.040***	0.040***	-0.202***
	(0.015)	(0.014)	(0.012)	(0.008)	(0.013)
Household size	0.057***	0.052***	0.060***	-0.307***	0.039***
	(0.015)	(0.013)	(0.010)	(0.011)	(0.015)
Child-dependency ratio	-0.053***	-0.009	0.081***	-0.210***	-0.011
	(0.013)	(0.012)	(0.010)	(0.011)	(0.014)
Livestock	0.108***	0.011***	0.119***	-0.049***	0.043***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.011)
Plot size	-0.221***	-0.052***	-0.192***	-0.222***	-0.186***
	(0.025)	(0.023)	(0.024)	(0.020)	(0.026)
Maincropping	-0.430***	0.768***	-2.142***	0.644***	-1.407***
	(0.037)	(0.210)	(0.167)	(0.296)	(0.103)
Plot distance to home	-0.077***	-0.049***	-0.031***	-0.063***	-0.131***
	(0.009)	(0.010)	(0.007)	(0.009)	(0.010)
Cost of irrigation (log)	-0.682***	-0.732***	-0.429***	-0.189***	0.018
	(0.097)	(0.069)	(0.060)	(0.061)	(0.073)
Adult laboring men in family	0.094***	-0.033**	0.265***	0.034***	-0.041***
	(0.018)	(0.018)	(0.016)	(0.014)	(0.017)
Adult laboring women in family	-0.048***	-0.099***	0.060***	-0.011	-0.016
	(0.019)	(0.012)	(0.015)	(0.013)	(0.015)
Child laborers in family	-0.057***	0.104***	-0.104***	-0.117***	-0.005
	(0.014)	(0.013)	(0.010)	(0.012)	(0.013)
Hired men	-0.021***	-0.038***	-0.003	-0.038***	0.036***
	(0.009)	(0.005)	(0.006)	(0.007)	(0.006)
Hired women	0.061***	0.073***	0.086***	0.093***	0.140***
	(0.010)	(0.008)	(0.010)	(0.009)	(0.011)
Hired child labor	0.005	-0.072***	-0.047***	-0.040***	0.095***
	(0.018)	(0.017)	(0.012)	(0.012)	(0.017)
Fertilizer (kg/hectare) (log)	-0.005	0.284***	0.175***	0.322***	-0.073
	(0.062)	(0.050)	(0.051)	(0.045)	(0.063)
Herbicide (kg/hectare) (log)	-0.033***	0.051***	-0.032***	-0.094***	-0.032**
	(0.009)	(0.010)	(0.007)	(0.007)	(0.010)
Seed (kg/hectare) (log)	-0.326***	-0.792***	-0.300***	-0.633***	-0.372***
	(0.066)	(0.062)	(0.069)	(0.054)	(0.045)
Agricultural tools (log)	0.052	-0.947***	0.297***	0.695***	0.040
	(0.054)	(0.060)	(0.051)	(0.043)	(0.065)

III) Bimodal Rainfall Humid Forest

	Plot headship				
	Plot head	Plot *de jure* head	Plot migrant head	Plot manager	Plot owner
Mill's ratio	-3.913***	-2.290***	-0.871***	-2.254***	-4.146***
	(0.209)	(0.179)	(0.148)	(0.177)	(0.217)
B3. Women's Structural Disadvantage					
Age (years)	-0.255***	-0.764***	-0.153	-0.385***	-0.673***
	(0.093)	(0.108)	(0.144)	(0.132)	(0.091)
Age squared	0.171***	0.447***	0.050	0.299***	0.458***
	(0.052)	(0.061)	(0.081)	(0.069)	(0.050)
Education (years)	-0.185***	-0.258***	-0.054***	0.049**	-0.137***
	(0.016)	(0.018)	(0.020)	(0.026)	(0.015)
Married	-0.098***	-0.115***	-0.054***	-0.111***	-0.152***
	(0.010)	(0.012)	(0.016)	(0.018)	(0.013)
Household size	-0.067***	0.090***	0.021	-0293***	-0.154***
	(0.018)	(0.016)	(0.023)	(0.022)	(0.016)
Child-dependency ratio	-0.082***	-0.027*	0.068***	-0.309***	-0.120***
	(0.017)	(0.016)	(0.018)	(0.023)	(0.015)
Livestock	0.128***	0.080***	0.052***	0.112***	0.210***
	(0.012)	(0.013)	(0.015)	(0.015)	(0.014)
Plot size	-0.142***	-0.124***	-0.257***	-0.149***	-0.259***
	(0.030)	(0.035)	(0.036)	(0.030)	(0.033)
Maincropping	6.588***	4.523***	5.284***	2.880***	1.799***
	(0.426)	(0.259)	(0.352)	(0.184)	(0.346)
Plot distance to home	-0.384***	-0.284***	0.079***	-0.045***	-0.231***
	(0.017)	(0.020)	(0.023)	(0.017)	(0.019)
Cost of irrigation (log)	0.147***	0.335***	-0.308***	-0.818***	-0.427***
	(0.099)	(0.119)	(0.128)	(0.121)	(0.106)
Adult laboring men in family	0.106***	0.092***	0.462***	-0.093***	-0.178***
	(0.018)	(0.029)	(0.023)	(0.029)	(0.022)
Adult laboring women in family	0.020	0.002	0.088***	-0.095***	0.073***
	(0.014)	(0.018)	(0.019)	(0.019)	(0.017)
Child laborers in family	-0.074***	0.074***	-0.347***	-0.096***	-0.011
	(0.015)	(0.014)	(0.015)	(0.015)	(0.015)
Hired men	-0.158***	-0.111***	-0.072***	-0.128***	-0.038***
	(0.012)	(0.013)	(0.012)	(0.010)	(0.012)
Hired women	-0.002	0.034***	0.037***	-0.014	0.045***
	(0.008)	(0.013)	(0.013)	(0.011)	(0.009)
Hired child labor	-0.052***	-0.048***	0.045***	-0.038***	0.016
	(0.011)	(0.010)	(0.011)	(0.017)	(0.012)
Fertilizer (kg/hectare) (log)	0.031	0.164***	0.350***	1.100***	0.386***
	(0.056)	(0.075)	(0.073)	(0.076)	(0.071)
Herbicide (kg/hectare) (log)	-0.006	0.082***	-0.113***	-0.140***	0.014
	(0.012)	(0.016)	(0.017)	(0.019)	(0.013)
Seed (kg/hectare) (log)	-0.011	-0.126***	-0.486***	-0.571***	-0.012
	(0.057)	(0.088)	(0.062)	(0.066)	(0.052)
Agricultural tools (log)	-0.939***	-1.157***	0.556***	0.492***	-0.008
	(0.080)	(0.071)	(0.088)	(0.070)	(0.057)
Mill's ratio	-2.616***	-3.211***	0.216	-2.780***	-3.644***
	(0.185)	(0.219)	(0.317)	(0.326)	(0.210)

Note. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively; robust standard errors in parentheses; district fixed-effects.
Source: Authors' calculations based on IRAD.

Table A7: Estimates of Indirect Contributors to Gender Disparities across Agroecological Zones

Variable	(i) Sahel								
	Plot head (Dependent variable: seed)			Plot *de jure* head (Dependent variable: family labor by men/boys)			Plot migrant head (Dependent variable: age)		
	Pooled	Women	Men	Pooled	Women	Men	Pooled	Women	Men
Constant	3.470***	3.502***	3.465***	7.888***	9.181***	7.205***	33.659***	31.256***	35.176***
Age	0.001	0.004	-0.001	0.029	-0.033	0.063	/	/	/
Age squared	0.001	-0.006	0.003	-0.029	0.043	-0.067	/	/	/
Education	0.006	-0.011	0.016	0.040	-0.011	0.071	-2.037***	-1.701***	-2.203***
Equipment	/	/	/	0.019	-0.023	0.039*	-0.059	-0.105	-0.031
Credit	-0.036	-0.123	0.005	0.169	-0.098	0.242	-0.835	1.244	-2.205*
Maincropping	-0.063	-0.091	-0.048	-0.266	0.585	-0.726*	12.431***	12.048***	12.830***
Plot distance	/	/	/	/	/	/	0.119	-0.126	0.224
Number obs.	1,617	550	1,067	1,617	614	1,003	1,617	609	1,008
R-squared	0.005	0.012	0.008	0.003	0.005	0.012	0.275	0.256	0.293

Variable	Plot manager (Dependent variable: plot size)			Plot owner (Dependent variable: age)		
	Pooled	Women	Men	Pooled	Women	Men
Constant	1.106***	1.122***	1.086***	33.659***	28.007***	36.994***
Age	-0.001	-0.006	0.004	/	/	/
Age squared	0.0004	0.005	-0.005	/	/	/
Education	-0.012	-0.005	-0.023*	-2.037***	-1.553***	-2.187***
Equipment	0.006***	0.009***	0.003	-0.059	-0.083	-0.057
Credit	-0.018	-0.052	0.045	-0.835	-1.826	-0.618
Maincropping	0.011	0.040	-0.006	12.431***	13.035***	12.099***
Plot distance	0.003	0.006	-0.001	/	/	/
Plot size	/	/	/	0.119	-0.034	0.163
Ethnicity	0.077***	0.076**	0.079*	/	/	/
Number obs.	1,617	925	692	1,617	588	1,029
R-squared	0.021	0.032	0.023	0.275	0.294	0.269

Variable	(ii) Western Highlands								
	Plot head (Dependent variable: fertilizer)			Plot *de jure* head (Dependent variable: fertilizer)			Plot migrant head (Dependent variable: age)		
	Pooled	Women	Men	Pooled	Women	Men	Pooled	Women	Men
Constant	4.888***	5.100***	4.707***	4.888***	4.831***	4.876***	33.659***	31.256***	35.176***
Age	0.004	-0.011	0.015	0.004	-0.002	0.009	/	/	/
Age squared	-0.006	0.012	-0.021	-0.006	0.004	-0.015	/	/	/
Education	-0.001	-0.005	0.006	-0.001	0.003	0.0003	-2.037***	-1.701***	-2.203***

Cost fertilizer	-0.0003***	-0.0002***	-0.0004***	-0.0003***	-0.0003***	-0.0003***	/	/	/
Equipment	0.007**	0.002	0.011**	0.007*	0.008	0.007*	-0.059	-0.105	-0.031
Credit	-0.036	-0.221	0.112	-0.036	-0.269	0.087	-0.834	1.244	-2.205*
Maincropping	-0.028	0.114	-0.169	-0.028	0.108	-0.138	12.431***	12.048***	12.830***
Plot size	/	/	/	/	/	/	-0.542	0.296	-1.138
Plot distance	/	/	/	/	/	/	0.119	-0.126	0.224
Number obs.	1,238	540	698	1,238	526	712	1,617	609	1,008
R-squared	0.107	0.112	0.128	0.107	0.123	0.109	0.275	0.256	0.293

Table A7 continued

Variable	(ii) Western Highlands					
	Plot manager (Dependent variable: agricultural equipment)			Plot owner (Dependent variable: fertilizer)		
	Pooled	Women	Men	Pooled	Women	Men
Constant	9.186***	9.467***	8.935***	4.888***	5.074***	4.745***
Age	0.012	-0.005	0.030	0.004	-0.008	0.012
Age squared	-0.017	0.007	-0.044	-0.006	0.009	-0.017
Education	-0.038	-0.038	-0.039	-0.001	0.001	-0.001
Cost fertilizer	/	/	/	-0.0003***	-0.0003***	-0.0003***
Plot distance	-0.003	-0.022	0.012	/	/	/
Plot size	-0.352**	-0.501**	-0.236	/	/	/
Maincropping	-0.292*	-0.030	-0.544**	-0.028	0.085	-0.106
Equipment	0.003	0.008	0.0004	0.007**	-0.0004	0.012***
Credit	-0.072	-0.215	0.126	-0.036	-0.346*	0.154
Number obs.	1,238	633	605	1,238	515	723
R-squared	0.011	0.015	0.020	0.107	0.103	0.132

Variable	(iii) Bimodal Rainfall Humid Forest								
	Plot head (Dependent variable: fertilizer)			Plot *de jure* head (Dependent variable: fertilizer)			Plot migrant head (Dependent variable: livestock)		
	Pooled	Women	Men	Pooled	Women	Men	Pooled	Women	Men
Constant	5.095***	5.079***	5.331***	5.095***	5.079***	5.547***	2.990**	5.528**	1.468
Age	-0.035	-0.013	-0.046	-0.035	-0.013	-0.063	-0.058	-0.226	0.033
Age squared	0.057	0.012	0.069	0.057	0.012	0.101	0.093	0.347	-0.031
Education	0.028	0.076*	-0.022	0.028	0.076*	-0.011	0.150	-0.017	0.312
Cost fertilizer	-0.001***	-0.001***	-0.001***	-0.001***	-0.001**	-0.001***	/	/	/
Equipment	0.013	-0.001	0.025*	0.013	-0.001	0.009	-0.029	-0.005	-0.045
Credit	-0.394*	-0.176	-0.436	-0.394**	-0.176	-0.410	-0.742	-1.262*	-0.783
Maincropping	0.092	0.307	0.098	0.092	0.307	0.685	0.512	0.610	-1.094
Number obs.	220	110	110	220	100	82	220	110	84
R-squared	0.247	0.346	0.274	0.247	0.346	0.307	0.033	0.084	0.074

Variable	Plot manager (Dependent variable: fertilizer)			Plot owner (Dependent variable: fertilizer)		
	Pooled	Women	Men	Pooled	Women	Men
Constant	5.095***	5.079***	4.940***	5.095***	5.079***	5.018***
Age	-0.035	-0.013	-0.020	-0.035	-0.013	-0.022
Age squared	0.057	0.012	0.044	0.057	0.012	0.026
Education	0.028	0.076*	-0.018	0.028	0.076*	-0.020
Cost fertilizer	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.0004***
Equipment	0.013	-0.001	0.023	0.013	-0.001	0.031*
Credit	-0.394*	-0.176	-0.772*	-0.394*	-0.176	-0.380
Maincropping	0.092	0.307	-0.015	0.092	0.307	0.220
Number obs.	220	110	67	220	110	97
R-squared	0.247	0.346	0.310	0.247	0.346	0.270

Notes: ***, **, and * indicate significant at the 1%, 5%, and 10% level, respectively.
Source: Authors' calculations based on IRAD.

Table A8: Detailed Decomposition of Gender Disparities in Agricultural Productivity in Percentiles by Gender and Agroecological Zone

I) Sahel

Percentile	Plot head			Plot *de jure* head		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	-0.071 (-0.083, 0.059)	0.014 (0.011, 0.018)	0.025 (0.019, 0.031)	0.035 (0.025, 0.045)	-0.001 (-0.005, 0.002)	-0.002 (-0.008, 0.004)
0.050	-0.063 (-0.074, -0.052)	0.016 (0.012, 0.019)	0.028 (0.022, 0.033)	0.021 (0.013, 0.028)	0.0004 (-0.003, 0.004)	0.001 (-0.005, 0.006)
0.075	-0.052 (-0.060, -0.044)	0.015 (0.012, 0.018)	0.027 (0.022, 0.032)	0.010 (0.005, 0.016)	0.001 (-0.002, 0.005)	0.002 (-0.003, 0.008)
0.100	-0.042 (-0.047, -0.036)	0.014 (0.012, 0.017)	0.025 (0.021, 0.030)	0.003 (-0.001, 0.008)	0.002 (-0.001, 0.005)	0.003 (-0.002, 0.008)
0.125	-0.033 (-0.038, -0.028)	0.013 (0.011, 0.015)	0.023 (0.019, 0.028)	-0.0001 (-0.004, 0.004)	0.001 (-0.001, 0.004)	0.002 (-0.002, 0.006)
0.150	-0.022 (-0.031, -0.023)	0.012 (0.010, 0.014)	0.022 (0.018, 0.025)	-0.001 (-0.005, 0.002)	0.002 (-0.001, 0.004)	0.003 (-0.001, 0.006)
0.175	-0.024 (-0.029, -0.020)	0.012 (0.010, 0.013)	0.021 (0.019, 0.024)	-0.002 (-0.005, 0.001)	0.002 (0.001, 0.004)	0.004 (0.001, 0.007)
0.200	-0.024 (-0.028, -0.021)	0.011 (0.010, 0.013)	0.021 (0.019, 0.023)	-0.003 (-0.007, 0.0003)	0.004 (0.003, 0.006)	0.007 (0.004, 0.009)
0.225	-0.025 (-0.028, -0.023)	0.011 (0.010, 0.012)	0.021 (0.018, 0.023)	-0.005 (-0.008, -0.002)	0.006 (0.005, 0.007)	0.010 (0.008, 0.013)
0.250	-0.028 (-0.030, -0.025)	0.010 (0.009, 0.011)	0.019 (0.017, 0.021)	-0.007 (-0.009, -0.005)	0.007 (0.006, 0.009)	0.012 (0.010, 0.015)
0.275	-0.030 (-0.032, -0.027)	0.009 (0.008, 0.010)	0.017 (0.014, 0.019)	-0.010 (-0.011, -0.008)	0.007 (0.006, 0.008)	0.012 (0.011, 0.014)
0.300	-0.032 (-0.034, -0.029)	0.007 (0.006, 0.008)	0.013 (0.011, 0.014)	-0.012 (-0.014, -0.010)	0.005 (0.004, 0.007)	0.010 (0.008, 0.011)
0.325	-0.032 (-0.034, -0.030)	0.004 (0.003, 0.005)	0.008 (0.006, 0.009)	-0.012 (-0.014, -0.010)	0.002 (0.001, 0.003)	0.004 (0.002, 0.006)
0.350	-0.031 (-0.032, -0.029)	0.002 (0.001, 0.002)	0.003 (0.001, 0.004)	-0.011 (-0.013, -0.009)	-0.002 (-0.003, -.0005)	-0.003 (-0.004, -.001)
0.375	-0.027 (-0.029, -0.025)	-0.001 (-0.002, -0.0002)	-0.001 (-0.003, -0.0004)	-0.007 (-0.009, -0.006)	-0.005 (-0.006, -0.004)	-0.008 (-0.010, -.007)
0.400	-0.023 (-0.025, -0.021)	-0.003 (-0.003, -0.002)	-0.005 (-0.006, -0.004)	-0.003 (-0.005, -0.001)	-0.007 (-0.008, -0.006)	-0.011 (-0.012, -0.010)
0.425	-0.019 (-0.021, -0.017)	-0.004 (-0.005, -0.003)	-0.006 (-0.007, -0.005)	0.0004 (-0.001, 0.002)	-0.007 (-0.008, -0.006)	-0.011 (-0.012, -0.009)
0.450	-0.015 (-0.016, -0.013)	-0.004 (-0.005, -0.003)	-0.006 (-0.007, -0.005)	0.003 (0.001, 0.005)	-0.005 (-0.006, -0.004)	-0.008 (-0.009, -0.006)
0.475	-0.010 (-0.012, -0.008)	-0.004 (-0.005, -0.003)	-0.005 (-0.006, -0.004)	0.004 (0.002, 0.006)	-0.003 (-0.004, -0.002)	-0.004 (-0.006, -0.003)
0.500	-0.004 (-0.006, -0.002)	-0.002 (-0.003, -0.001)	-0.003 (-0.004, -0.002)	0.004 (0.002, 0.005)	-0.001 (-0.002, 0.0001)	-0.001 (-0.003, 0.0002)
0.525	0.003 (0.001, 0.005)	0.00003 (-0.001, 0.001)	0.00005 (-0.001, 0.001)	0.003 (0.001, 0.005)	0.0003 (-0.001, 0.001)	0.0005 (-0.001, 0.002)
0.550	0.009 (0.007, 0.012)	0.003 (0.002, 0.004)	0.004 (0.003, 0.005)	0.002 (0.0001, 0.004)	0.0004 (-0.0004, 0.001)	0.001 (-0.001, 0.002)

Table A8 continued
I) Sahel

Percentile	Plot head			Plot *de jure* head		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.575	0.015 (0.013, 0.017)	0.006 (0.005, 0.007)	0.009 (0.008, 0.010)	0.001 (-0.001, 0.003)	0.0001 (-0.001, 0.001)	0.0001 (-0.001, 0.001)
0.600	0.019 (0.017, 0.021)	0.009 (0.008, 0.010)	0.014 (0.013, 0.015)	0.001 (-0.001, 0.003)	-0.0002 (-0.001, 0.001)	-0.0003 (-0.002, 0.001)
0.625	0.019 (0.017, 0.021)	0.011 (0.011, 0.012)	0.019 (0.018, 0.020)	0.001 (-0.001, 0.003)	0.00004 (-0.001, 0.001)	0.0001 (-0.001, 0.002)
0.650	0.017 (0.015, 0.019)	0.012 (0.012, 0.013)	0.022 (0.020, 0.023)	0.001 (-0.001, 0.003)	0.0005 (-0.001, 0.002)	0.001 (-0.001, 0.002)
0.675	0.011 (0.009, 0.014)	0.012 (0.011, 0.013)	0.023 (0.021, 0.025)	0.001 (-0.001, 0.003)	0.001 (0.0002, 0.002)	0.002 (0.0003, 0.003)
0.700	0.005 (0.003, 0.007)	0.012 (0.011, 0.012)	0.023 (0.022, 0.025)	0.0004 (-0.001, 0.002)	0.002 (0.001, 0.003)	0.002 (0.001, 0.004)
0.725	-0.002 (-0.004, 0.0003)	0.011 (0.011, 0.012)	0.024 (0.022, 0.026)	-0.0004 (-0.002, 0.002)	0.002 (0.001, 0.003)	0.003 (0.001, 0.005)
0.750	-0.008 (-0.010, -0.006)	0.012 (0.011, 0.013)	0.027 (0.024, 0.029)	-0.001 (-0.003, 0.001)	0.002 (0.001, 0.003)	0.003 (0.001, 0.005)
0.775	-0.012 (-0.014, -0.009)	0.014 (0.013, 0.015)	0.032 (0.030, 0.034)	-0.001 (-0.003, 0.001)	0.003 (0.002, 0.004)	0.004 (0.003, 0.006)
0.800	-0.013 (-0.015, 0.011)	0.017 (0.016, 0.018)	0.041 (0.038, 0.043)	-0.002 (-0.004, 0.0001)	0.005 (0.004, 0.006)	0.008 (0.007,0.010)
0.825	-0.012 (-0.014, 0.009)	0.021 (0.020, 0.022)	0.052 (0.050, 0.055)	-0.003 (-0.005, -0.001)	0.010 (0.008, 0.011)	0.015 (0.013,0.017)
0.850	-0.007 (-0.010,-0.004)	0.025 (0.024, 0.026)	0.066 (0.063, 0.069)	-0.005 (-0.008, -0.002)	0.015 (0.014, 0.017)	0.025 (0.022,0.027)
0.875	0.0004 (-0.003, 0.004)	0.028 (0.026, 0.029)	0.078 (0.075, 0.082)	-0.007 (-0.010, -0.003)	0.021 (0.019, 0.023)	0.035 (0.032, .037)
0.900	0.011 (0.006, 0.015)	0.029 (0.028, 0.031)	0.089 (0.084, 0.094)	-0.006 (-0.010, -0.001)	0.025 (0.023, 0.027)	0.043 (0.040, .046)
0.925	0.023 (0.016, 0.029)	0.029 (0.027, 0.031)	0.097 (0.091, 0.104)	-0.003 (-0.008, 0.003)	0.027 (0.025, 0.029)	0.048 (0.044, .052)
0.950	0.033 (0.026, 0.041)	0.028 (0.026, 0.030)	0.102 (0.095, 0.109)	0.001 (-0.006, 0.009)	0.027 (0.024, 0.030)	0.050 (0.045, .055)
0.975	0.040 (0.031, 0.049)	0.027 (0.025, 0.029)	0.106 (0.098, 0.114)	0.004 (-0.003, 0.011)	0.026 (0.023, 0.029)	0.051 (0.045, .056)
1.000	0.042 (0.031, 0.054)	0.026 (0.023, 0.028)	0.110 (0.099, 0.120)	0.004 (-0.007, 0.015)	0.025 (0.022, 0.028)	0.051 (0.043, .057)

Table A8 continued
I) Sahel

Percentile	Plot migrant head			Plot manager		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	-0.012 (-0.022, 0.002)	-0.004 (-0.008, 0.001)	-0.005 (-0.012, 0.001)	-0.001 (-0.013, 0.010)	-0.021 (-0.027, 0.016)	-0.018 (-0.022, 0.014)
0.050	-0.007 (-0.014, 0.001)	-0.003 (-0.007, 0.001)	-0.004 (-0.010, 0.001)	-0.007 (-0.016, 0.012)	-0.020 (-0.025, 0.016)	-0.017 (-0.020, 0.013)
0.075	-0.004 (-0.010, 0.002)	-0.001 (-0.005, 0.002)	-0.002 (-0.007, 0.003)	-0.010 (-0.016, -0.003)	-0.019 (-0.024, 0.014)	-0.015 (-0.019, 0.011)
0.100	-0.005 (-0.010, 0.001)	0.001 (-0.002, 0.004)	0.001 (-0.003, 0.006)	-0.008 (-0.013, -0.002)	-0.017 (-0.020, 0.013)	-0.013 (-0.016, 0.010)
0.125	-0.007 (-0.012, 0.003)	0.004 (0.002, 0.007)	0.007 (0.003, 0.010)	-0.004 (-0.009, 0.001)	-0.013 (-0.017, 0.010)	-0.010 (-0.013,-0.007)
0.150	-0.011 (-0.015, 0.007)	0.009 (0.006, 0.011)	0.013 (0.010, 0.017)	0.001 (-0.003, 0.005)	-0.009 (-0.012,-0.006)	-0.007 (-0.009, 0.004)
0.175	-0.014 (-0.018, 0.010)	0.012 (0.011, 0.014)	0.019 (0.017, 0.022)	0.005 (0.002, 0.009)	-0.004 (-0.007,-0.002)	-0.003 (-0.005, 0.001)
0.200	-0.015 (-0.017, 0.012)	0.015 (0.014, 0.017)	0.024 (0.022, 0.027)	0.008 (0.005, 0.012)	-0.001 (-0.004, 0.001)	-0.001 (-0.003, 0.001)
0.225	-0.014 (-0.016, 0.012)	0.016 (0.014, 0.017)	0.026 (0.023, 0.028)	0.011 (0.008, 0.014)	-0.001 (-0.003, 0.001)	-0.001 (-0.002, 0.001)
0.250	-0.013 (-0.015, 0.010)	0.014 (0.013, 0.016)	0.024 (0.022, 0.027)	0.014 (0.012, 0.016)	-0.002 (-0.004, .0002)	-0.002 (-0.003, 0.0001)
0.275	-0.012 (-0.014, 0.010)	0.012 (0.011, 0.013)	0.020 (0.018, 0.022)	0.017 (0.014, 0.019)	-0.004 (-0.006, 0.003)	-0.003 (-0.005, 0.002)
0.300	-0.013 (-0.015, 0.010)	0.008 (0.007, 0.009)	0.015 (0.013, 0.017)	0.019 (0.017, 0.022)	-0.006 (-0.008, 0.005)	-0.005 (-0.006, 0.004)
0.325	-0.013 (-0.015, 0.011)	0.005 (0.004, 0.006)	0.008 (0.006, 0.010)	0.022 (0.020, 0.024)	-0.008 (-0.009, 0.001)	-0.006 (-0.008, 0.005)
0.350	-0.013 (-0.015,-0.011)	0.001 (0.0003,0.002)	0.002 (0.0005, 0.004)	0.024 (0.022, 0.026)	-0.009 (-0.010, 0.007)	-0.007 (-0.008, 0.006)
0.375	-0.012 (-0.014, 0.010)	-0.002 (-0.003, 0.001)	-0.003 (-0.004, 0.001)	0.026 (0.025, 0.028)	-0.010 (-0.011, 0.008)	-0.008 (-0.009, 0.007)
0.400	-0.012 (-0.014, 0.010)	-0.004 (-0.005, 0.003)	-0.006 (-0.008, 0.005)	0.028 (0.026, 0.030)	-0.010 (-0.012, 0.009)	-0.009 (-0.010, 0.008)
0.425	-0.012 (-0.013, 0.010)	-0.005 (-0.006, 0.005)	-0.009 (-0.010, 0.007)	0.029 (0.027, 0.030)	-0.011 (-0.013, 0.010)	-0.010 (-0.011, 0.009)
0.450	-0.011 (-0.012,-0.009)	-0.007 (-0.007, 0.006)	-0.010 (-0.011, 0.009)	0.027 (0.026, 0.029)	-0.012 (-0.013, 0.010)	-0.010 (-0.011, 0.009)
0.475	-0.009 (-0.011, 0.008)	-0.007 (-0.008, 0.006)	-0.011 (-0.012, 0.009)	0.025 (0.023, 0.027)	-0.011 (-0.012, 0.010)	-0.010 (-0.011, 0.009)
0.500	-0.007 (-0.009,-0.005)	-0.007 (-0.008, 0.006)	-0.010 (-0.011, 0.008)	0.022 (0.020, 0.024)	-0.011 (-0.012, 0.010)	-0.009 (-0.010, 0.008)
0.525	-0.004 (-0.006, 0.002)	-0.005 (-0.006, 0.004)	-0.007 (-0.008, 0.006)	0.019 (0.018, 0.021)	-0.011 (-0.012, 0.010)	-0.009 (-0.010, 0.009)
0.550	-0.0002 (-0.002, 0.002)	-0.002 (-0.003, 0.002)	-0.003 (-0.005, 0.002)	0.016 (0.014, 0.018)	-0.012 (-0.013,-0.010)	-0.010 (-0.011,-0.009)
0.575	0.004 (0.002, 0.006)	0.0003 (-0.001, 0.001)	0.0004 (-0.001, 0.002)	0.011 (0.009, 0.013)	-0.012 (-0.014, 0.011)	-0.011 (-0.012, 0.010)
0.600	0.008 (0.006, 0.010)	0.003 (0.002, 0.004)	0.004 (0.003, 0.005)	0.004 (0.003, 0.006)	-0.013 (-0.014, 0.012)	-0.011 (-0.012, 0.010)
0.625	0.010 (0.009, 0.012)	0.004 (0.004, 0.005)	0.006 (0.005, 0.008)	-0.002 (-0.004, 0.0003)	-0.013 (-0.014, 0.012)	-0.010 (-0.011,-0.009)
0.650	0.012 (0.010, 0.014)	0.005 (0.004, 0.006)	0.008 (0.006, 0.009)	-0.007 (-0.009, -0.005)	-0.012 (-0.013, 0.011)	-0.009 (-0.010, 0.008)
0.675	0.012 (0.010, 0.014)	0.005 (0.004, 0.006)	0.008 (0.006, 0.009)	-0.009 (-0.010, -0.007)	-0.011 (-0.013, 0.010)	-0.008 (-0.009,-0.007)
0.700	0.011 (0.009, 0.013)	0.004 (0.003, 0.005)	0.007 (0.005, 0.008)	-0.007 (-0.008, -0.005)	-0.011 (-0.012, 0.010)	-0.008 (-0.009, 0.007)

Table A8 continued
I) Sahel

Percentile	Plot migrant head			Plot manager		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.725	0.010	0.004	0.006	-0.002	-0.011	-0.008
	(0.008, 0.012)	(0.003, 0.005)	(0.004, 0.007)	(-0.004, .00002)	(-0.013, 0.010)	(-0.009, 0.007)
0.750	0.008	0.004	0.006	0.004	-0.013	-0.009
	(0.006, 0.010)	(0.003, 0.005)	(0.005, 0.008)	(0.002, 0.006)	(-0.014, 0.012)	(-0.010, 0.008)
0.775	0.005	0.005	0.009	0.009	-0.016	-0.011
	(0.003, 0.007)	(0.004, 0.006)	(0.007, 0.010)	(0.007, 0.011)	(-0.018, 0.015)	(-0.012, 0.010)
0.800	0.001	0.008	0.013	0.012	-0.021	-0.014
	(-0.001, 0.002)	(0.007, 0.009)	(0.012, 0.015)	(0.010, 0.014)	(-0.023, 0.019)	(-0.015, 0.013)
0.825	-0.003	0.011	0.020	0.013	-0.027	-0.017
	(-0.005,-0.001)	(0.010, 0.012)	(0.017, 0.022)	(0.010, 0.016)	(-0.029, 0.025)	(-0.019, 0.016)
0.850	-0.005	0.014	0.026	0.011	-0.034	-0.021
	(-0.007, 0.002)	(0.013, 0.016)	(0.023, 0.028)	(0.009, 0.014)	(-0.037, 0.032)	(-0.023, 0.020)
0.875	-0.004	0.016	0.030	0.006	-0.041	-0.025
	(-0.007, 0.001)	(0.014, 0.018)	(0.027, 0.033)	(0.003, 0.010)	(-0.044, 0.038)	(-0.027, 0.023)
0.900	-0.002	0.017	0.032	-0.003	-0.046	-0.027
	(-0.007, 0.003)	(0.015, 0.018)	(0.029, 0.036)	(-0.007, 0.001)	(-0.050, 0.043)	(-0.029, 0.025)
0.925	0.001	0.016	0.032	-0.016	-0.047	-0.026
	(-0.006, 0.007)	(0.014, 0.018)	(0.028, 0.036)	(-0.023, -0.010)	(-0.052, 0.042)	(-0.029, 0.023)
0.950	0.001	0.014	0.030	-0.033	-0.044	-0.023
	(-0.009, 0.011)	(0.012, 0.016)	(0.025, 0.034)	(-0.040, -0.025)	(-0.050, 0.038)	(-0.026, 0.020)
0.975	-0.0002	0.012	0.026	-0.049	-0.037	-0.018
	(-0.012, 0.012)	(0.009, 0.014)	(0.020, 0.031)	(-0.059, -0.039)	(-0.045, 0.029)	(-0.022, 0.014)
1.000	-0.004	0.009	0.021	-0.064	-0.027	-0.012
	(-0.018, 0.010)	(0.006, 0.012)	(0.014, 0.027)	(-0.075, -0.054)	(-0.035, 0.018)	(-0.016, 0.009)

Percentile	Plot owner		
	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	0.007	0.007	0.009
	(-0.005, 0.020)	(0.002, 0.011)	(0.003, 0.014)
0.050	-0.009	0.008	0.010
	(-0.020, 0.001)	(0.004, 0.012)	(0.005, 0.015)
0.075	-0.026	0.011	0.013
	(-0.036, -0.016)	(0.007, 0.014)	(0.009, 0.018)
0.100	-0.039	0.015	0.018
	(-0.046, -0.031)	(0.011, 0.018)	(0.014, 0.022)
0.125	-0.046	0.018	0.022
	(-0.052, -0.040)	(0.015, 0.021)	(0.019, 0.026)
0.150	-0.047	0.020	0.025
	(-0.052, -0.041)	(0.017, 0.023)	(0.021, 0.029)
0.175	-0.040	0.020	0.025
	(-0.045, -0.035)	(0.017, 0.023)	(0.021, 0.028)
0.200	-0.030	0.018	0.022
	(-0.034, -0.026)	(0.016, 0.020)	(0.019, 0.025)
0.225	-0.020	0.014	0.018
	(-0.023, -0.017)	(0.012, 0.016)	(0.015, 0.020)
0.250	-0.012	0.010	0.013
	(-0.015, -0.008)	(0.008, 0.012)	(0.011, 0.015)
0.275	-0.007	0.006	0.008
	(-0.010, -0.003)	(0.005, 0.008)	(0.006, 0.010)
0.300	-0.004	0.004	0.004
	(-0.007, -0.001)	(0.002, 0.005)	(0.003, 0.007)
0.325	-0.003	0.002	0.003
	(-0.006, 0.0004)	(0.001, 0.004)	(0.001, 0.005)
0.350	-0.001	0.002	0.003
	(-0.004, 0.001)	(0.001, 0.004)	(0.001, 0.005)

Table A8 continued
I) Sahel

Percentile	Plot owner		
	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.375	-0.001	0.003	0.003
	(-0.003, 0.002)	(0.001, 0.004)	(0.002, 0.005)
0.400	-0.001	0.003	0.005
	(-0.003, 0.001)	(0.002, 0.005)	(0.003, 0.006)
0.425	-0.002	0.004	0.006
	(-0.004, -0.001)	(0.003, 0.005)	(0.004, 0.007)
0.450	-0.005	0.004	0.006
	(-0.006, -0.003)	(0.003, 0.005)	(0.005, 0.007)
0.475	-0.007	0.004	0.005
	(-0.008, -0.006)	(0.003, 0.005)	(0.004, 0.006)
0.500	-0.008	0.002	0.003
	(-0.009, -0.007)	(0.001, 0.003)	(0.002, 0.004)
0.525	-0.007	-0.0001	-0.0001
	(-0.009, -0.006)	(-0.001, 0.001)	(-0.001, 0.001)
0.550	-0.005	-0.002	-0.003
	(-0.007, -0.004)	(-0.003, -0.001)	(-0.004, -0.001)
0.575	-0.004	-0.003	-0.004
	(-0.005, -0.003)	(-0.004, -0.002)	(-0.005, -0.003)
0.600	-0.003	-0.003	-0.004
	(-0.005, -0.002)	(-0.004, -0.002)	(-0.004, -0.003)
0.625	-0.004	-0.002	-0.002
	(-0.005, -0.002)	(-0.002, -0.001)	(-0.003, -0.001)
0.650	-0.004	-0.0001	-0.0001
	(-0.006, -0.003)	(-0.001, 0.001)	(-0.001, 0.001)
0.675	-0.005	0.001	0.032
	(-0.007, -0.004)	(0.001, 0.002)	(0.001,0.003)
0.700	-0.006	0.003	0.003
	(-0.008, -0.005)	(0.002, 0.004)	(0.003,0.004)
0.725	-0.007	0.004	0.005
	(-0.008, -0.005)	(0.003, 0.005)	(0.004,0.006)
0.750	-0.007	0.006	0.007
	(-0.009, -0.006)	(0.005, 0.007)	(0.006,0.008)
0.775	-0.007	0.007	0.009
	(-0.008, -0.005)	(0.006, 0.008)	(0.008,0.010)
0.800	-0.005	0.009	0.011
	(-0.007, -0.004)	(0.008, 0.010)	(0.010,0.013)
0.825	-0.001	0.011	0.014
	(-0.003, 0.001)	(0.010, 0.012)	(0.012,0.015)
0.850	0.007	0.013	0.017
	(0.005, 0.010)	(0.012, 0.015)	(0.015,0.018)
0.875	0.018	0.016	0.020
	(0.015, 0.022)	(0.014, 0.017)	(0.018,0.022)
0.900	0.033	0.018	0.024
	(0.028, 0.037)	(0.016, 0.020)	(0.021,0.026)
0.925	0.050	0.020	0.027
	(0.043, 0.056)	(0.018, 0.022)	(0.024,0.030)
0.950	0.068	0.021	0.030
	(0.061, 0.075)	(0.019, 0.024)	(0.027,0.034)
0.975	0.085	0.022	0.033
	(0.078, 0.093)	(0.020, 0.025)	(0.030,0.037)
1.000	0.103	0.023	0.036
	(0.093, 0.113)	(0.021, 0.025)	(0.032, 0.040)

Table A8 continued
II) Western Highlands

Percentile	Plot head			Plot *de jure* head		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	0.007 (-0.005,0.020)	0.007 (0.002, 0.011)	0.009 (0.003, 0.014)	-0.087 (-0.099, -0.076)	0.008 (0.004, 0.012)	0.012 (0.006, 0.018)
0.050	-0.009 (-0.020,0.001)	0.008 (0.004, 0.012)	0.010 (0.005, 0.015)	-0.084 (-0.093, -0.075)	0.008 (0.003, 0.013)	0.011 (0.004, 0.018)
0.075	-0.026 (-0.036,0.016)	0.011 (0.007, 0.014)	0.013 (0.009, 0.018)	-0.077 (-0.085, -0.069)	0.008 (0.003, 0.012)	0.011 (0.004, 0.017)
0.100	-0.039 (-0.046,-0.031)	0.015 (0.011, 0.018)	0.018 (0.014, 0.022)	-0.066 (-0.072, -0.060)	0.008 (0.004, 0.011)	0.011 (0.006, 0.016)
0.125	-0.046 (-0.052,-0.040)	0.018 (0.015, 0.021)	0.022 (0.019, 0.026)	-0.051 (-0.056, -0.046)	0.008 (0.005, 0.011)	0.010 (0.006, 0.015)
0.150	-0.047 (-0.052, 0.041)	0.020 (0.017, 0.023)	0.025 (0.021, 0.029)	-0.033 (-0.038, -0.029)	0.007 (0.004, 0.010)	0.009 (0.005, 0.014)
0.175	-0.040 (-0.045,-0.035)	0.020 (0.017, 0.023)	0.025 (0.021, 0.028)	-0.015 (-0.019, -0.011)	0.005 (0.003, 0.008)	0.007 (0.004, 0.010)
0.200	-0.030 (-0.034, -0.026)	0.018 (0.016, 0.020)	0.022 (0.019, 0.025)	0.001 (-0.003, 0.004)	0.002 (-0.00002, 0.005)	0.003 (-0.00002,0.007)
0.225	-0.020 (-0.023, -0.017)	0.014 (0.012, 0.016)	0.018 (0.015, 0.020)	0.011 (0.008, 0.015)	-0.001 (-0.003, 0.001)	-0.001 (-0.004, 0.001)
0.250	-0.012 (-0.015, -0.008)	0.010 (0.008, 0.012)	0.013 (0.011, 0.015)	0.017 (0.014, 0.019)	-0.004 (-0.006, -0.002)	-0.006 (-0.008, -0.004)
0.275	-0.007 (-0.010, -0.003)	0.006 (0.005, 0.008)	0.008 (0.006, 0.010)	0.017 (0.014, 0.019)	-0.007 (-0.009, -0.006)	-0.010 (-0.013, -0.008)
0.300	-0.004 (-0.007, -0.001)	0.004 (0.002, 0.005)	0.005 (0.003, 0.007)	0.014 (0.011, 0.017)	-0.009 (-0.011, -0.007)	-0.013 (-0.015, -0.010)
0.325	-0.003 (-0.006, 0.0004)	0.002 (0.001, 0.004)	0.003 (0.001, 0.005)	0.012 (0.009, 0.014)	-0.010 (-0.011, -0.008)	-0.013 (-0.015, -0.011)
0.350	-0.001 (-0.004, 0.001)	0.002 (0.001, 0.004)	0.003 (0.001, 0.005)	0.011 (0.009, 0.013)	-0.008 (-0.010, -0.007)	-0.011 (-0.013, -0.010)
0.375	-0.001 (-0.003, 0.002)	0.003 (0.001, 0.004)	0.003 (0.002, 0.005)	0.010 (0.008, 0.012)	-0.006 (-0.007, -0.005)	-0.008 (-0.010, -0.007)
0.400	-0.001 (-0.003, 0.001)	0.003 (0.002, 0.005)	0.005 (0.003, 0.006)	0.008 (0.006, 0.010)	-0.003 (-0.004, -0.002)	-0.004 (-0.006, -0.003)
0.425	-0.002 (-0.004, -0.001)	0.004 (0.003, 0.005)	0.006 (0.004, 0.007)	0.004 (0.003, 0.006)	0.004 (-0.001, 0.001)	0.001 (-0.001, 0.002)
0.450	-0.005 (-0.006, -0.003)	0.004 (0.003, 0.005)	0.006 (0.005, 0.007)	-0.001 (-0.002, 0.001)	0.004 (0.003, 0.004)	0.005 (0.004, 0.006)
0.475	-0.007 (-0.008, -0.006)	0.004 (0.003, 0.005)	0.005 (0.004, 0.006)	-0.005 (-0.007, -0.004)	0.006 (0.005, 0.007)	0.008 (0.007, 0.010)
0.500	-0.008 (-0.009, -0.007)	0.002 (0.001, 0.003)	0.003 (0.002, 0.004)	-0.008 (-0.010, -0.007)	0.007 (0.007, 0.008)	0.011 (0.009, 0.012)
0.525	-0.007 (-0.009, -0.006)	-0.0001 (-0.001, 0.001)	-0.0001 (-0.001, 0.001)	-0.009 (-0.011, -0.008)	0.008 (0.007, 0.009)	0.012 (0.010, 0.013)
0.550	-0.005 (-0.007, -0.004)	-0.002 (-0.003, -0.001)	-0.003 (-0.004, -0.001)	-0.009 (-0.010, -0.008)	0.008 (0.008, 0.009)	0.012 (0.011, 0.013)
0.575	-0.004 (-0.005, -0.003)	-0.003 (-0.004, 0.002)	-0.004 (-0.005, 0.003)	-0.008 (-0.010, -0.007)	0.008 (0.008, 0.009)	0.012 (0.011, 0.013)

Table A8 continued
II) Western Highlands

Percentile	Plot head			Plot *de jure* head		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.600	-0.003 (-0.005, -0.002)	-0.003 (-0.004,-0.002)	-0.004 (-0.004, 0.003)	-0.009 (-0.010,-0.007)	0.008 (0.007, 0.009)	0.012 (0.011, .013)
0.625	-0.004 (-0.005, -0.002)	-0.002 (-0.002,-0.001)	-0.002 (-0.003,-0.001)	-0.010 (-0.011, 0.008)	0.007 (0.007, 0.008)	0.012 (0.010, .013)
0.650	-0.004 (-0.006, -0.003)	-0.0001 (-0.001, 0.001)	-0.0001 (-0.001, 0.001)	-0.012 (-0.013, 0.010)	0.007 (0.006, 0.008)	0.011 (0.009, .012)
0.675	-0.005	0.001	0.002	-0.014	0.006	0.009

	(-0.007, -0.004)	(0.001, 0.002)	(0.001, 0.003)	(-0.015, 0.012)	(0.005, 0.006)	(0.008, .010)
0.700	-0.006	0.003	0.003	-0.014	0.004	0.007
	(-0.008, -0.005)	(0.002, 0.004)	(0.003, 0.004)	(-0.016,-0.013)	(0.003, 0.005)	(0.005,0.008)
0.725	-0.007	0.004	0.005	-0.013	0.002	0.004
	(-0.008, -0.005)	(0.003, 0.005)	(0.004, 0.006)	(-0.015,-0.012)	(0.001, 0.003)	(0.002, .005)
0.750	-0.007	0.006	0.007	-0.011	0.0002	0.0003
	(-0.009, -0.006)	(0.005, 0.007)	(0.006, 0.008)	(-0.012, 0.010)	(-0.001, 0.001)	(-0.001, .002)
0.775	-0.007	0.007	0.009	-0.008	-0.002	-0.003
	(-0.008, -0.005)	(0.006, 0.008)	(0.008, 0.010)	(-0.010, 0.007)	(-0.003,-0.001)	(-0.005,-0.002)
0.800	-0.005	0.009	0.011	-0.005	-0.004	-0.007
	(-0.007, -0.004)	(0.008, 0.010)	(0.010, 0.013)	(-0.006, 0.003)	-0.005, -0.003(	(-0.008, 0.005)
0.825	-0.001	0.011	0.014	-0.002	-0.007	-0.010
	(-0.003, 0.001)	(0.010, 0.012)	(0.012, 0.015)	(-0.003,-0.0001)	(-0.008,-0.005)	(-0.012,-0.008)
0.850	0.007	0.013	0.017	0.002	-0.009	-0.013
	(0.005, 0.010)	(0.012, 0.015)	(0.015, 0.018)	(-0.0002, .004)	(-0.011, 0.008)	(-0.015, 0.011)
0.875	0.018	0.016	0.020	0.005	-0.012	-0.016
	(0.015, 0.022)	(0.014, 0.017)	(0.018, 0.022)	(0.002, 0.008)	(-0.013,-0.010)	(-0.019,-0.014)
0.900	0.033	0.018	0.024	0.008	-0.014	-0.020
	(0.028, 0.037)	(0.016, 0.020)	(0.021, 0.026)	(0.004, 0.013)	(-0.016, 0.013)	(-0.023,-0.017)
0.925	0.050	0.020	0.027	0.010	-0.017	-0.024
	(0.043, 0.056)	(0.018, 0.022)	(0.024, 0.030)	(0.005, 0.015)	(-0.020, 0.015)	(-0.027, 0.020)
0.950	0.068	0.021	0.030	0.012	-0.021	-0.029
	(0.061, 0.075)	(0.019, 0.024)	(0.027, 0.034)	(0.004, 0.019)	(-0.023,-0.018)	(-0.032,-0.025)
0.975	0.085	0.022	0.033	0.013	-0.026	-0.035
	(0.078, 0.093)	(0.020, 0.025)	(0.030, 0.037)	(0.004, 0.021)	(-0.029, 0.023)	(-0.039, 0.031)
1.000	0.103	0.023	0.036	0.013	-0.032	-0.043
	(0.093, 0.113)	(0.021, 0.025)	(0.032, 0.040)	(0.002, 0.024)	(-0.035,-0.028)	(-0.047, 0.038)

Table A8 continued
II) Western Highlands

Percentile	Plot migrant head			Plot manager		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	-0.079	-0.032	-0.041	0.063	0.019	0.018
	(-0.091,0.066)	(-0.037,-0.028)	(-0.046,-0.034)	(0.052, 0.074)	(0.013,0.025)	(0.012, .024)
0.050	-0.079	-0.033	-0.039	0.049	0.020	0.020
	(-0.088,-0.069)	(-0.037, -0.028)	(-0.045,-0.033)	(0.040,0.059)	(0.014,0.025)	(0.014,0.025)
0.075	-0.075	-0.030	-0.034	0.037	0.018	0.019
	(-0.084,-0.067)	(-0.034, -0.026)	(-0.039,-0.029)	(0.028,0.045)	(0.013, 0.023)	(0.013, .024)
0.100	-0.069	-0.023	-0.026	0.027	0.015	0.015
	(-0.076,-0.062)	(-0.027, -0.019)	(-0.030, 0.021)	(0.019,0.034)	(0.010, 0.019)	(0.011, .020)
0.125	-0.058	-0.014	-0.015	0.020	0.010	0.010
	(-0.063,-0.053)	(-0.019, -0.010)	(-0.020,-0.011)	(0.015,0.025)	(0.006, 0.014)	(0.006, .014)
0.150	-0.045	-0.004	-0.005	0.016	0.005	0.005
	(-0.050, -0.040)	(-0.008, -0.001)	(-0.008,-0.001)	(0.011,0.021)	(0.001, 0.007)	(0.001,0.008)
0.175	-0.031	0.005	0.006	0.015	-0.0001	-0.0001
	(-0.035, -0.026)	(0.003, 0.008)	(0.003, 0.009)	(0.011,0.019)	(-0.003, 0.003)	(-0.003,0.003)
0.200	-0.018	0.013	0.013	0.016	-0.003	-0.003
	(-0.022, -0.014)	(0.011, 0.016)	(0.011, 0.016)	(0.012,0.019)	(-0.005, 0.0003)	(-0.006,-0.0003)
0.225	-0.009	0.019	0.020	0.016	-0.004	-0.004
	(-0.012, -0.005)	(0.016, 0.021)	(0.018, 0.023)	(0.012,0.020)	(-0.006, -0.002)	(-0.007, 0.002)
0.250	-0.003	0.022	0.025	0.016	-0.004	-0.004
	(-0.007, 0.0001)	(0.020, 0.024)	(0.022, 0.027)	(0.012,0.019)	(-0.006, -0.002)	(-0.006,-0.002)
0.275	-0.001	0.023	0.027	0.015	-0.003	-0.003
	(-0.004, 0.002)	(0.021, 0.025)	(0.025, 0.029)	(0.012,0.018)	(-0.005, -0.001)	(-0.005,-0.001)
0.300	-0.001	0.022	0.028	0.012	-0.003	-0.003
	(-0.004, 0.002)	(0.021, 0.024)	(0.025, 0.030)	(0.009,0.015)	(-0.004, -0.001)	(-0.005, 0.001)
0.325	-0.001	0.021	0.027	0.009	-0.002	-0.002
	(-0.004, 0.001)	(0.020, 0.023)	(0.026, 0.029)	(0.006,0.012)	(-0.004, -0.001)	(-0.004, 0.001)
0.350	-0.002	0.019	0.026	0.005	-0.002	-0.003
	(-0.004, 0.0004)	(0.017, 0.020)	(0.024, 0.028)	(0.003,0.008)	(-0.004, -0.001)	(-0.004, 0.001)
0.375	-0.002	0.016	0.023	0.002	-0.003	-0.003
	(-0.004, 0.001)	(0.015, 0.017)	(0.021, 0.025)	(-0.0001,0.004)	(-0.004, -0.001)	(-0.004, 0.001)
0.400	-0.001	0.012	0.018	-0.00003	-0.003	-0.005
	(-0.002, 0.001)	(0.011, 0.013)	(0.016, 0.020)	(-0.001,0.001)	(-0.005,-0.002)	(-0.005, 0.002)
0.425	0.001	0.008	0.012	0.0005	-0.004	-0.006
	(-0.001, 0.002)	(0.007, 0.009)	(0.010, 0.013)	(-0.001,0.002)	(-0.006,0.003)	(-0.006, 0.003)
0.450	0.002	0.003	0.005	0.003	-0.006	-0.007
	(0.001,0.004)	(0.002,0.004)	(0.004, 0.007)	(0.002, 0.005)	(-0.007, -0.005)	(-0.008, 0.005)
0.475	0.004	-0.001	-0.001	0.006	-0.008	-0.009
	(0.002,0.005)	(-0.002,0.0003)	(-0.002,0.0004)	(0.005, 0.008)	(-0.009, -0.007)	(-0.009, 0.007)
0.500	0.005	-.004	-0.006	0.008	-0.009	-0.010
	(0.004,0.006)	(-0.005,-0.003)	(-0.007, -0.005)	(0.007, 0.010)	(-0.010, -0.008)	(-0.010, 0.008)
0.525	0.007	-0.006	-0.009	0.009	-0.010	-0.010
	(0.005,0.008)	(-0.006, -0.005)	(-0.010, -0.008)	(0.007, 0.010)	(-0.011, -0.009)	(-0.011, 0.009)
0.550	0.008	-0.007	-0.010	0.007	-0.011	-0.011
	(0.007,0.010)	(-0.007, -0.006)	(-0.011, -0.009)	(0.006, 0.008)	(-0.012, -0.010)	(-0.012, 0.010)
0.575	0.010	-0.006	-0.009	0.004	-0.012	-0.010
	(0.008,0.011)	(-0.007, -0.005)	(-0.011, -0.008)	(0.003, 0.005)	(-0.013, -0.011)	(-0.012,-0.010)
0.600	0.010	-0.005	-0.008	0.001	-0.012	-0.010
	(0.009,0.011)	(-0.006, -0.004)	(-0.009, -0.006)	(-0.001, 0.002)	(-0.013, -0.011)	(-0.012, 0.010)
0.625	0.009	-0.004	-0.005	-0.002	-0.012	-0.008
	(0.007, 0.010)	(-0.004, -0.003)	(-0.007, -0.004)	(-0.003,-0.0003)	(-0.013, -0.011)	(-0.011,-0.009)
0.650	0.006	-0.002	-0.003	-0.002	-0.010	-0.005
	(0.005, 0.007)	(-0.003, -0.002)	(-0.005, -0.002)	(-0.004, 0.001)	(-0.011, -0.009)	(-0.009,-0.007)

Table A8 continued
II) Western Highlands

Percentile	Plot migrant head			Plot manager		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.675	0.003	-0.002	-0.002	-0.002	-0.006	-0.001
	(0.001, 0.004)	(-0.002, -0.001)	(-0.003, -0.001)	(-0.003,-0.001)	(-0.007, -0.005)	(-0.006, -0.004)
0.700	-0.001	-0.001	-0.002	-0.001	-0.001	0.004
	(-0.002, 0.001)	(-0.002, -0.001)	(-0.003, -0.001)	(-0.002, .0003)	(-0.002, 0.0005)	(-0.002,0.0004)
0.725	-0.003	-0.002	-0.003	-0.0001	0.005	0.008
	(-0.005,-0.002)	(-0.003, -0.001)	(-0.004, -0.001)	(-0.001, 0.001)	(0.004, 0.006)	(0.003, 0.005)
0.750	-0.004	-0.002	-0.004	0.001	0.010	0.009
	(-0.006,-0.002)	(-0.004, -0.002)	(-0.005, -0.002)	(-0.001, 0.002)	(0.008, 0.011)	(0.007, 0.009)
0.775	-0.003	-0.003	-0.005	0.001	0.011	0.008
	(-0.005,-0.002)	(-0.004, -0.002)	(-0.006, -0.003)	(-0.0003,0.003)	(0.010, 0.013)	(0.008, 0.011)
0.800	-0.001	-0.004	-0.005	0.002	0.009	0.002
	(-0.002, 0.001)	(-0.005, -0.003)	(-0.006, -0.004)	(0.001, 0.004)	(0.008, 0.011)	(0.007, 0.009)
0.825	0.004	-0.003	-0.005	0.004	0.002	-0.008
	(0.002, 0.006)	(-0.005, -0.002)	(-0.006, -0.003)	(0.002, 0.006)	(0.010, 0.004)	(0.001, 0.004)
0.850	0.010	-0.002	-0.003	0.006	-0.008	-0.020
	(0.007, 0.012)	(-0.003, -0.001)	(-0.005, -0.001)	(0.004, 0.008)	(-0.010, -0.006)	(-0.010, 0.006)
0.875	0.016	-0.001	-0.001	0.005	-0.021	-0.032
	(0.013,0.019)	(-0.002,0.001)	(-0.003, 0.001)	(0.002, 0.008)	(-0.023, 0.019)	(-0.022, 0.018)
0.900	0.022	0.001	0.001	-0.001	-0.034	-0.043
	(0.019,0.025)	(-0.001,0.004)	(-0.001, 0.005)	(-0.006,0.003)	(-0.036, 0.031)	(-0.035,-0.030)
0.925	0.029	0.003	0.004	-0.013	-0.045	-0.043
	(0.023,0.034)	(0.001,0.005)	(0.001, 0.007	(-0.019,-0.008)	(-0.047, 0.041)	(-0.045,-0.040)
0.950	0.035	0.004	0.005	-0.030	-0.054	-0.050
	(0.028,0.041)	(0.001,0.007)	(0.002, 0.009)	(-0.037,-0.023)	(-0.057, 0.051)	(-0.053, 0.047)
0.975	0.040	0.004	0.006	-0.049	-0.062	-0.055
	(0.032,0.049)	(0.002,0.007)	(0.002, 0.010)	(-0.057,-0.041)	(-0.066,-0.058)	(-0.059, 0.052)
1.000	0.045	0.004	0.006	-0.069	-0.069	-0.059
	(0.034,0.055)	(0.001,0.007)	(0.002, 0.010)	(-0.078,-0.060)	(-0.073, 0.065)	(-0.062, 0.056)

Percentile	Plot owner		
	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	0.012	0.046	0.063
	(-0.002, 0.026)	(0.042, 0.050)	(0.058, 0.068)
0.050	-0.006	0.047	0.066
	(-0.017, 0.004)	(0.043, 0.051)	(0.060, 0.071)
0.075	-0.024	0.047	0.067
	(-0.033, -0.014)	(0.043, 0.050)	(0.062, 0.071)
0.100	-0.037	0.041	0.065
	(-0.045, -0.029)	(0.041, 0.048)	(0.060, 0.070)
0.125	-0.045	0.039	0.058
	(-0.051, -0.039)	(0.036, 0.042)	(0.054, 0.063)
0.150	-0.045	0.031	0.048
	(-0.051, -0.040)	(0.029, 0.034)	(0.044, 0.051)
0.175	-0.040	0.023	0.034
	(-0.044, -0.036)	(0.020, 0.025)	(0.031, 0.038)
0.200	-0.032	0.014	0.021
	(-0.036, -0.028)	(0.012, 0.016)	(0.018, 0.025)
0.225	-0.023	0.007	0.011
	(-0.027, -0.020)	(0.005, 0.009)	(0.007, 0.014)
0.250	-0.017	0.002	0.003
	(-0.020, -0.013)	(0.001, 0.004)	(0.001, 0.006)

Table A8 continued
II) Western Highlands

Percentile	Plot owner		
	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.275	-0.011	0.0002	0.0004
	(-0.014, -0.008)	(-0.001, 0.002)	(-0.002, 0.003)
0.300	-0.008	0.0004	0.001
	(-0.011, -0.005)	(-0.001, 0.002)	(-0.001, 0.003)
0.325	-0.006	0.002	0.003
	(-0.009, -0.003)	(0.001, 0.003)	(0.001, 0.005)
0.350	-0.005	0.004	0.005
	(-0.007, -0.003)	(0.002, 0.005)	(0.004, 0.007)
0.375	-0.004	0.004	0.006
	(-0.007, -0.002)	(0.003, 0.005)	(0.005, 0.008)
0.400	-0.004	0.003	0.005
	(-0.006, -0.002)	(0.002, 0.004)	(0.003, 0.006)
0.425	-0.003	0.0004	0.001
	(-0.005, -0.002)	(-0.001, 0.002)	(-0.001, 0.002)
0.450	-0.004	-0.004	-0.004
	(-0.005, -0.003)	(-0.004, -0.002)	(-0.006, -0.003)
0.475	-0.005	-0.006	-0.009
	(-0.006, -0.004)	(-0.007, -0.005)	(-0.010, -0.008)
0.500	-0.005	-0.010	-0.012
	(-0.007, -0.004)	(-0.010, -0.008)	(-0.013, -0.011)
0.525	-0.005	-0.010	-0.013
	(-0.006, -0.003)	(-0.011, -0.010)	(-0.015, -0.012)
0.550	-0.004	-0.010	-0.013
	(-0.005, -0.002)	(-0.011, -0.009)	(-0.014, -0.012)
0.575	-0.002	-0.008	-0.010
	(-0.003, -0.0004)	(-0.009, -0.007)	(-0.011, -0.009)
0.600	-0.001	-0.005	-0.006
	(-0.002, 0.001)	(-0.006, -0.004)	(-0.007, -0.005)
0.625	-0.0003	-0.001	-0.001
	(-0.002, 0.001)	(-0.002, -0.00002)	(-0.002, -0.00003)
0.650	-0.001	0.003	0.004
	(-0.002, 0.001)	(0.002, 0.004)	(0.003, 0.005)
0.675	-0.001	0.007	0.008
	(-0.003, 0.00002)	(0.006, 0.008)	(0.007, 0.009)
0.700	-0.002	0.009	0.011
	(-0.004, -0.001)	(0.008, 0.010)	(0.010, 0.012)
0.725	-0.003	0.010	0.013
	(-0.004, -0.001)	(0.010, 0.011)	(0.012, 0.014)
0.750	-0.004	0.010	0.014
	(-0.006, -0.003)	(0.010, 0.012)	(0.013, 0.016)
0.775	-0.006	0.011	0.014
	(-0.007, -0.004)	(0.010, 0.012)	(0.013, 0.016)
0.800	-0.006	0.010	0.014
	(-0.008, -0.004)	(0.009, 0.011)	(0.013, 0.016)
0.825	-0.004	0.010	0.014
	(-0.006, -0.002)	(0.009, 0.011)	(0.012, 0.016)
0.850	0.002	0.010	0.014
	(-0.001, 0.004)	(0.008, 0.011)	(0.011, 0.016)
0.875	0.010	0.010	0.014
	(0.007, 0.013)	(0.008, 0.012)	(0.012, 0.017)
0.900	0.021	0.012	0.017
	(0.017, 0.024)	(0.010, 0.014)	(0.014, 0.020)
0.925	0.033	0.014	0.021
	(0.028, 0.039)	(0.012, 0.016)	(0.017, 0.024)
0.950	0.045	0.017	0.026

	(0.039, 0.052)	(0.015, 0.020)	(0.022, 0.029)
0.975	0.057	0.021	0.032
	(0.048, 0.066)	(0.019, 0.023)	(0.028, 0.035)
1.000	0.068	0.025	0.039
	(0.058, 0.077)	(0.022, 0.027)	(0.035, 0.042)

Table A8 continued
III) Bimodal Rainfall Humid Forest

Percentile	Plot head			Plot *de jure* head		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	-0.204 (-0.249,-0.160)	0.065 (0.059,0.071)	0.076 (0.069, 0.082)	-0.205 (-0.241,-0.169)	0.057 (0.050,0.065)	0.065 (0.057, 0.073)
0.050	-0.231 (-0.274,-0.188)	0.062 (0.054,0.069)	0.070 (0.062, 0.078)	-0.182 (-0.213,-0.151)	0.057 (0.050,0.064)	0.065 (0.056, 0.073)
0.075	-0.249 (-0.287,-0.211)	0.056 (0.049,0.062)	0.061 (0.053, 0.069)	-0.157 (-0.185,-0.129)	0.057 (0.050,0.065)	0.065 (0.057, 0.073)
0.100	-0.259 (-0.294,-0.223)	0.048 (0.038,0.058)	0.051 (0.042, 0.060)	-0.123 (-0.153, 0.093)	0.057 (0.049,0.065)	0.066 (0.056, 0.075)
0.125	-0.256 (-0.285,-0.227)	0.038 (0.029,0.046)	0.039 (0.030, 0.048)	-0.090 (-0.119,-0.061)	0.053 (0.046,0.061)	0.062 (0.053, 0.071)
0.150	-0.238 (-0.266,-0.210)	0.025 (0.017,0.032)	0.025 (0.017, 0.032)	-0.050 (-0.080,-0.020)	0.049 (0.041,0.057)	0.058 (0.049, 0.067)
0.175	-0.210 (-0.233,-0.186)	0.008 (-0.0004,0.017)	0.008 (-0.001, 0.017)	-0.011 (-0.038, 0.016)	0.043 (0.036,0.050)	0.052 (0.044, 0.061)
0.200	-0.172 (-0.193,-0.151)	-0.008 (-0.017,0.001)	-0.007 (-0.015, 0.001)	0.022 (0.001, 0.043)	0.037 (0.030,0.044)	0.046 (0.038, 0.055)
0.225	-0.130 (-0.150,-0.109)	-0.021 (-0.029,-0.013)	-0.018 (-0.025, -0.012)	0.046 (0.030, 0.062)	0.030 (0.023,0.036)	0.039 (0.030, 0.048)
0.250	-0.098 (-0.103,-0.073)	-0.027 (-0.034,-0.021)	-0.023 (-0.029, -0.017)	0.060 (0.043, 0.077)	0.026 (0.020,0.031)	0.035 (0.027, 0.044)
0.275	-0.057 (-0.073,-0.040)	-0.030 (-0.036, -0.024)	-0.024 (-0.030, -0.019)	0.061 (0.044, 0.078)	0.022 (0.017,0.027)	0.031 (0.024, 0.039)
0.300	-0.032 (-0.046,-0.019)	-0.026 (-0.033, -0.019)	-0.021 (-0.026, -0.016)	0.051 (0.037, 0.066)	0.018 (0.013,0.023)	0.027 (0.019, 0.034)
0.325	-0.014 (-0.026,-0.002)	-0.018 (-0.024,-0.012)	-0.014 (-0.019, -0.010)	0.036 (0.025, 0.047)	0.016 (0.011,0.020)	0.023 (0.017, 0.029)
0.350	-0.002 (-0.011, 0.008)	-0.011 (-0.015, -0.006)	-0.009 (-0.012, -0.005)	0.020 (0.012, 0.028)	0.011 (0.007,0.015)	0.017 (0.011, 0.023)
0.375	0.009 (0.0001,0.018)	-0.004 (-0.008,-0.001)	-0.003 (-0.007,-0.0002)	0.005 (-0.004, 0.014)	0.006 (0.003,0.009)	0.009 (0.004, 0.014)
0.400	0.018 (0.010, 0.027)	-0.0003 (-0.004, 0.003)	-0.0002 (-0.003, 0.002)	-0.005 (-0.013, 0.003)	-0.001 (-0.003,0.002)	-0.001 (-0.005, 0.003)

0.425	0.026 (0.018, 0.034)	0.002 (-0.001, 0.005)	0.002 (-0.001, 0.004)	-0.010 (-0.017,-0.004)	-0.008 (-0.010,-0.005)	-0.011 (-0.015,-0.007)
0.450	0.037 (0.030, 0.044)	0.003 (-0.00001,0.006)	0.003 (0.0001, 0.005)	-0.010 (-0.017,-0.003)	-0.014 (-0.017,-0.012)	-0.020 (-0.023,-0.016)
0.475	0.046 (0.039, 0.053)	0.002 (-0.001, 0.004)	0.001 (-0.001, 0.004)	-0.007 (-0.014,- .00004)	-0.019 (-0.022,-0.017)	-0.025 (-0.028,-0.022)
0.500	0.056 (0.050, 0.061)	-0.0002 (-0.002, 0.002)	-0.0002 (-0.002, 0.002)	-0.005 (-0.012, 0.001)	-0.022 (-0.025,-0.020)	-0.028 (-0.031,-0.025)
0.525	0.063 (0.058, 0.069)	-0.003 (-0.006, -0.001)	-0.003 (-0.006, -0.001)	-0.001 (-0.008, 0.005)	-0.024 (-0.026,-0.021)	-0.028 (-0.031,-0.025)
0.550	0.068 (0.062, 0.073)	-0.006 (-0.008, -0.004)	-0.006 (-0.008, -0.004)	0.004 (-0.002, 0.010)	-0.023 (-0.025,-0.021)	-0.026 (-0.028,-0.023)
0.575	0.067 (0.061, 0.073)	-0.009 (-0.011, -0.007)	-0.010 (-0.012, -0.007)	0.007 (0.002, 0.013)	-0.021 (-0.024,-0.018)	-0.022 (-0.025,-0.019)
0.600	0.060 (0.054, 0.067)	-0.011 (-0.013, -0.008)	-0.012 (-0.015, -0.009)	0.012 (0.005, 0.018)	-0.017 (-0.020,-0.014)	-0.018 (-0.021,-0.015)
0.625	0.046 (0.039, 0.054)	-0.012 (-0.014, -0.009)	-0.013 (-0.016, -0.010)	0.015 (0.009, 0.022)	-0.012 (-0.015,-0.009)	-0.012 (-0.015,-0.009)
0.650	0.026 (0.018, 0.034)	-0.011 (-0.013, -0.008)	-0.012 (-0.015, -0.009)	0.018 (0.011, 0.026)	-0.007 (-0.010,-0.004)	-0.007 (-0.010,-0.004)
0.675	0.002 (-0.007, 0.011)	-0.009 (-0.012, -0.006)	-0.010 (-0.014, -0.007)	0.020 (0.013, 0.027)	-0.001 (-0.004, 0.003)	-0.001 (-0.004, 0.003)

Table A8 continued
III) Bimodal Rainfall Humid Forest

Percentile	Plot head			Plot *de jure* head		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.700	-0.027 (-0.037,-0.017)	-0.005 (-0.008, -0.003)	-0.006 (-0.009, -0.003)	0.018 (0.009, 0.027)	0.006 (0.002, 0.010)	0.006 (0.002, 0.010)
0.725	-0.052 (-0.062,-0.042)	-0.001 (-0.004, 0.001)	-0.002 (-0.004, 0.001)	0.015 (0.006, 0.023)	0.012 (0.008, 0.016)	0.012 (0.008, 0.016)
0.750	-0.073 (-0.083,-0.062)	0.003 (0.0002, 0.006)	0.003 (0.0001, 0.007)	0.009 (-0.001, 0.019)	0.017 (0.013, 0.022)	0.018 (0.014, 0.022)
0.775	-0.088 (-0.099,-0.076)	0.007 (0.005, 0.010)	0.008 (0.005, 0.011)	-0.0001 (-0.012, 0.012)	0.021 (0.017, 0.025)	0.022 (0.018, 0.027)
0.800	-0.097 (-0.109,-0.086)	0.012 (0.009, 0.015)	0.012 (0.009, 0.015)	-0.012 (-0.023, -0.001)	0.026 (0.022, 0.030)	0.027 (0.023, 0.032)
0.825	-0.102 (-0.115,-0.089)	0.017 (0.014, 0.019)	0.016 (0.013, 0.019)	-0.028 (-0.039, -0.016)	0.028 (0.025, 0.032)	0.031 (0.027, 0.035)
0.850	-0.102 (-0.114,-0.089)	0.021 (0.018, 0.025)	0.020 (0.017, 0.023)	-0.044 (-0.058, -0.030)	0.030 (0.026, 0.035)	0.033 (0.028, 0.038)
0.875	-0.099 (-0.111,-0.087)	0.026 (0.022,0.029)	0.023 (0.020, 0.027)	-0.060 (-0.072, -0.049)	0.030 (0.026,0.035)	0.033 (0.028, 0.038)
0.900	-0.093 (-0.107,-0.080)	0.029 (0.025,0.033)	0.026 (0.022, 0.029)	-0.075 (-0.086, -0.065)	0.030 (0.026,0.033)	0.032 (0.028, 0.037)
0.925	-0.087 (-0.101,-0.073)	0.032 (0.028,0.036)	0.027 (0.024, 0.030)	-0.088 (-0.099, -0.076)	0.028 (0.024,0.032)	0.030 (0.026, 0.034)
0.950	-0.078 (-0.092,-0.064)	0.033 (0.030,0.037)	0.028 (0.025, 0.031)	-0.097 (-0.110, -0.084)	0.025 (0.022,0.029)	0.027 (0.022, 0.031)
0.975	-0.068 (-0.080,-0.055)	0.034 (0.031,0.037)	0.027 (0.025, 0.030)	-0.103 (-0.115, -0.091)	0.022 (0.018, 0.025)	0.022 (0.019, 0.026)
1.000	-0.056 (-0.070, 0.043)	0.032 (0.029,0.036)	0.026 (0.023, 0.028)	-0.106 (-0.119, -0.093)	0.018 (0.015, 0.021)	0.018 (0.015, 0.021)

Table A8 continued
III) Bimodal Rainfall Humid Forest

Percentile	Plot migrant head			Plot manager		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	-0.093 (-0.135,-0.052)	-0.072 (-0.080,-0.064)	-0.128 (-0.141, -0.115)	-0.142 (-0.178,-0.107)	0.051 (0.042, 0.059)	0.082 (0.063, 0.095)
0.050	-0.112 (-0.151,-0.073)	-0.072 (-0.078,-0.066)	-0.122 (-0.134, -0.109)	-0.151 (-0.185,-0.117)	0.049 (0.041, 0.057)	0.078 (0.065, 0.092)
0.075	-0.124 (-0.155,-0.092)	-0.069 (-0.077,-0.060)	-0.111 (-0.124, -0.098)	-0.146 (-0.178,-0.114)	0.044 (0.037, 0.052)	0.070 (0.057, 0.084)
0.100	-0.129 (-0.157,-0.101)	-0.064 (-0.072,-0.055)	-0.098 (-0.111, -0.085)	-0.131 (-0.164,-0.098)	0.035 (0.027, 0.042)	0.054 (0.041, 0.067)
0.125	-0.126 (-0.153,-0.099)	-0.057 (-0.064,-0.049)	-0.084 (-0.096, -0.071)	-0.106 (-0.135,-0.078)	0.025 (0.016, 0.034)	0.039 (0.024, 0.053)
0.150	-0.117 (-0.142,-0.092)	-0.049 (-0.058,-0.041)	-0.070 (-0.083, -0.058)	-0.070 (-0.096,-0.044)	0.016 (0.007, 0.024)	0.024 (0.010, 0.038)
0.175	-0.099 (-0.124,-0.073)	-0.041 (-0.049,-0.032)	-0.056 (-0.067, -0.045)	-0.032 (-0.056,-0.007)	0.002 (-0.006, 0.011)	0.004 (-0.009, 0.016)
0.200	-0.078 (-0.096,-0.059)	-0.030 (-0.038,-0.022)	-0.041 (-0.052, -0.030)	0.002 (-0.017, 0.021)	-0.007 (-0.014, 0.001)	-0.010 (-0.023, 0.002)
0.225	-0.055 (-0.072,-0.037)	-0.019 (-0.026,-0.012)	-0.026 (-0.036, -0.016)	0.031 (0.012, 0.050)	-0.014 (-0.022,-0.005)	-0.021 (-0.034,-0.008)
0.250	-0.035 (-0.051, -0.020)	-0.010 (-0.016,-0.003)	-0.013 (-0.022, -0.005)	0.050 (0.035, 0.066)	-0.018 (-0.024,-0.012)	-0.027 (-0.036,-0.017)
0.275	-0.019 (-0.033, -0.005)	-0.001 (-0.007, 0.005)	-0.001 (-0.009, 0.007)	0.053 (0.039, 0.066)	-0.017 (-0.024,-0.011)	-0.027 (-0.036,-0.018)
0.300	-0.009 (-0.021, 0.004)	0.006 (0.001, 0.011)	0.009 (0.002, 0.016)	0.048 (0.034, 0.062)	-0.016 (-0.020,-0.011)	-0.024 (-0.031,-0.016)
0.325	-0.004 (-0.015, 0.006)	0.011 (0.007, 0.015)	0.016 (0.010, 0.023)	0.036 (0.024, 0.048)	-0.012 (-0.016,-0.008)	-0.019 (-0.025,-0.012)
0.350	-0.004 (-0.014, 0.005)	0.013 (0.009, 0.017)	0.020 (0.014, 0.026)	0.023 (0.013, 0.032)	-0.010 (-0.014,-0.006)	-0.015 (-0.021,-0.009)
0.375	-0.007 (-0.017, 0.002)	0.013 (0.010, 0.016)	0.020 (0.016, 0.025)	0.012 (0.003, 0.021)	-0.008 (-0.011,-0.005)	-0.012 (-0.017,-0.007)
0.400	-0.008 (-0.016, 0.0003)	0.011 (0.008, 0.015)	0.018 (0.013, 0.023)	0.004 (-0.004, 0.012)	-0.009 (-0.012,-0.006)	-0.014 (-0.018,-0.010)
0.425	-0.007 (-0.014, 0.001)	0.008 (0.005, 0.010)	0.013 (0.009, 0.016)	0.0005 (-0.007, 0.008)	-0.010 (-0.013,-0.007)	-0.015 (-0.019,-0.010)
0.450	-0.003 (-0.009, 0.004)	0.003 (0.001, 0.006)	0.005 (0.001, 0.010)	0.0004 (-0.007, 0.008)	-0.012 (-0.015,-0.009)	-0.017 (-0.022,-0.013)
0.475	0.003 (-0.003, 0.009)	-0.001 (-0.004, 0.001)	-0.002 (-0.006, 0.002)	0.002 (-0.004, 0.008)	-0.013 (-0.016,-0.011)	-0.019 (-0.023,-0.015)
0.500	0.011 (0.005, 0.017)	-0.006 (-0.008,-0.004)	-0.009 (-0.012, -0.006)	0.005 (-0.001, 0.011)	-0.014 (-0.016,-0.011)	-0.019 (-0.022,-0.016)
0.525	0.022 (0.016, 0.028)	-0.010 (-0.012,-0.008)	-0.016 (-0.019, -0.012)	0.006 (0.0004,0.011)	-0.011 (-0.014,-0.009)	-0.015 (-0.018,-0.011)
0.550	0.032 (0.026, 0.038)	-0.014 (-0.017,-0.011)	-0.022 (-0.027, -0.018)	0.006 (0.00001,0.011)	-0.007 (-0.010,-0.005)	-0.009 (-0.012,-0.006)
0.575	0.041 (0.036, 0.046)	-0.019 (-0.021,-0.017)	-0.030 (-0.033, -0.026)	0.005 (-0.001, 0.011)	-0.001 (-0.004, 0.002)	-0.002 (-0.005, 0.002)
0.600	0.046 (0.040, 0.052)	-0.023 (-0.026,-0.021)	-0.037 (-0.041, -0.032)	0.005 (-0.002, 0.012)	0.005 (0.002, 0.008)	0.007 (0.003, 0.011)
0.625	0.046 (0.041, 0.052)	-0.028 (-0.031,-0.025)	-0.043 (-0.048, -0.039)	0.005 (-0.003, 0.012)	0.011 (0.008, 0.013)	0.014 (0.011, 0.017)
0.650	0.039 (0.032, 0.047)	-0.031 (-0.034,-0.028)	-0.047 (-0.052, -0.042)	0.004 (-0.003, 0.012)	0.015 (0.012, 0.018)	0.020 (0.016, 0.024)

Table A8 continued
III) Bimodal Rainfall Humid Forest

Percentile	Plot migrant head			Plot manager		
	Endowment effect	Men's structural advantage	Women's structural disadvantage	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.675	0.022 (0.013, 0.032)	-0.031 (-0.034,-0.028)	-0.047 (-0.051,-0.042)	0.006 (-0.003,0.015)	0.017 (0.014,0.020)	0.023 (0.019 ,0.027)
0.700	0.0002 (-0.009, 0.009)	-0.029 (-0.033,-0.026)	-0.043 (-0.047,-0.038)	0.004 (-0.004,0.012)	0.017 (0.014,0.020)	0.024 (0.019 ,0.028)
0.725	-0.027 (-0.038,-0.017)	-0.025 (-0.028,-0.022)	-0.035 (-0.040,-0.031)	0.002 (-0.009,0.013)	0.016 (0.013,0.020)	0.024 (0.020 ,0.028)
0.750	-0.055 (-0.067,-0.044)	-0.019 (-0.022,-0.016)	-0.025 (-0.030,-0.021)	-0.005 (-0.014,0.005)	0.016 (0.012,0.019)	0.023 (0.018 ,0.029)
0.775	-0.081 (-0.092,-0.069)	-0.012 (-0.015,-0.008)	-0.015 (-0.019,-0.011)	-0.016 (-0.026,-0.005)	0.014 (0.011,0.017)	0.022 (0.017 ,0.027)
0.800	-0.100 (-0.111,-0.090)	-0.002 (-0.005, 0.001)	-0.003 (-0.006, 0.001)	-0.028 (-0.039,-0.016)	0.013 (0.009,0.016)	0.020 (0.015 ,0.025)
0.825	-0.116 (-0.128,-0.105)	0.007 (0.004, 0.010)	0.008 (0.004, 0.011)	-0.039 (-0.052,-0.026)	0.012 (0.009,0.015)	0.019 (0.014, 0.024)
0.850	-0.125 (-0.136,-0.113)	0.017 (0.013, 0.020)	0.018 (0.014, 0.021)	-0.049 (-0.061,-0.036)	0.011 (0.008,0.014)	0.017 (0.012, 0.022)
0.875	-0.128 (-0.139,-0.118)	0.025 (0.021, 0.029)	0.026 (0.022, 0.030)	-0.056 (-0.066,-0.045)	0.009 (0.006,0.012)	0.014 (0.009, 0.019)
0.900	-0.126 (-0.138,-0.114)	0.032 (0.028, 0.036)	0.031 (0.028, 0.035)	-0.057 (-0.069,-0.046)	0.007 (0.004,0.009)	0.010 (0.006, 0.015)
0.925	-0.120 (-0.132,-0.108)	0.037 (0.034, 0.041)	0.035 (0.032, 0.039)	-0.053 (-0.065,-0.041)	0.004 (0.001,0.007)	0.006 (0.001, 0.011)
0.950	-0.109 (-0.122,-0.097)	0.040 (0.036, 0.044)	0.037 (0.033, 0.041)	-0.047 (-0.061,-0.033)	0.0004 (-0.002,0.003)	0.001 (-0.003, 0.005)
0.975	-0.096 (-0.109,-0.084)	0.041 (0.038, 0.044)	0.037 (0.033, 0.041)	-0.038 (-0.050,-0.027)	-0.003 (-0.005,-0.001)	-0.004 (-0.008,-0.0002)
1.000	-0.081 (-0.094,-0.069)	0.040 (0.037, 0.044)	0.036 (0.032, 0.039)	-0.029 (-0.043,-0.014)	-0.006 (-0.008,-0.004)	-0.009 (-0.012, -0.006)

Percentile	Plot owner		
	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.025	-0.294 (-0.338, -0.250)	-0.010 (-0.017, -0.003)	-0.012 (-0.019, -0.004)
0.050	-0.288 (-0.325, -0.250)	-0.011 (-0.019, -0.003)	-0.012 (-0.020, -0.004)
0.075	-0.275 (-0.310, -0.239)	-0.014 (-0.021, -0.007)	-0.015 (-0.022, -0.008)
0.100	-0.251 (-0.288, -0.214)	-0.016 (-0.025, -0.008)	-0.016 (-0.025, -0.008)
0.125	-0.223 (-0.252, -0.193)	-0.018 (-0.027, -0.010)	-0.018 (-0.026, -0.010)
0.150	-0.189 (-0.216, -0.161)	-0.022 (-0.031, -0.014)	-0.021 (-0.029, -0.013)
0.175	-0.148 (-0.174, -0.121)	-0.024 (-0.033, -0.015)	-0.022 (-0.030, -0.013)
0.200	-0.110 (-0.134, -0.086)	-0.023 (-0.031, -0.015)	-0.021 (-0.028, -0.013)
0.225	-0.074 (-0.090, -0.058)	-0.023 (-0.030, -0.016)	-0.020 (-0.026, -0.014)
0.250	-0.046 (-0.061, -0.031)	-0.017 (-0.024, -0.009)	-0.014 (-0.021, -0.008)
0.275	-0.027 (-0.042, -0.013)	-0.009 (-0.015, -0.003)	-0.008 (-0.013, -0.003)
0.300	-0.016 (-0.027, -0.004)	0.001 (-0.005, 0.006)	0.001 (-0.004, 0.006)

Table A8 continued
III) Bimodal Rainfall Humid Forest

Percentile	Plot owner		
	Endowment effect	Men's structural advantage	Women's structural disadvantage
0.325	-0.012	0.011	0.010
	(-0.023, -0.001)	(0.006, 0.016)	(0.005, 0.014)
0.350	-0.012	0.017	0.015
	(-0.021, -0.002)	(0.012, 0.021)	(0.011, 0.020)
0.375	-0.009	0.021	0.020
	(-0.017, -0.002)	(0.017, 0.025)	(0.016, 0.023)
0.400	-0.004	0.022	0.021
	(-0.012, 0.004)	(0.018, 0.026)	(0.018, 0.025)
0.425	0.003	0.020	0.020
	(-0.004, 0.011)	(0.017, 0.023)	(0.017, 0.023)
0.450	0.012	0.017	0.017
	(0.007, 0.017)	(0.014, 0.020)	(0.014, 0.020)
0.475	0.022	0.012	0.013
	(0.017, 0.027)	(0.009, 0.015)	(0.010, 0.016)
0.500	0.032	0.007	0.007
	(0.025, 0.039)	(0.004, 0.009)	(0.005, 0.010)
0.525	0.040	0.001	0.001
	(0.034, 0.046)	(-0.001, -0.004)	(-0.001, 0.004)
0.550	0.045	-0.003	-0.004
	(0.040, 0.051)	(-0.005, -0.001)	(-0.006, -0.001)
0.575	0.047	-0.008	-0.010
	(0.041, 0.053)	(-0.010, -0.006)	(-0.012, -0.007)
0.600	0.046	-0.012	-0.015
	(0.039, 0.052)	(-0.014, -0.009)	(-0.018, -0.012)
0.625	0.041	-0.015	-0.019
	(0.034, 0.047)	(-0.018, -0.013)	(-0.023, -0.016)
0.650	0.032	-0.018	-0.022
	(0.024, 0.039)	(-0.021, -0.015)	(-0.026, -0.019)
0.675	0.020	-0.018	-0.023
	(0.012, 0.028)	(-0.021, -0.016)	(-0.027, -0.020)
0.700	0.007	-0.018	-0.022
	(-0.003, 0.016)	(-0.021, -0.014)	(-0.026, -0.018)
0.725	-0.008	-0.015	-0.018
	(-0.019, 0.002)	(-0.018, -0.011)	(-0.022, -0.014)
0.750	-0.024	-0.010	-0.012
	(-0.034, -0.014)	(-0.013, -0.007)	(-0.015, 0.009)
0.775	-0.037	-0.005	-0.006
	(-0.048, -0.025)	(-0.008, -0.002)	(-0.009, -0.002)
0.800	-0.047	0.001	0.001
	(-0.058, -0.035)	(-0.003, 0.004)	(-0.003, 0.004)
0.825	-0.054	0.007	0.007
	(-0.067, -0.041)	(0.004, 0.010)	(0.004, 0.010)
0.850	-0.059	0.012	0.012
	(-0.072, -0.046)	(0.008, 0.015)	(0.009, 0.015)
0.875	-0.061	0.016	0.016
	(-0.074, -0.048)	(0.012, 0.019)	(0.012, 0.019)
0.900	-0.061	0.019	0.019
	(-0.073, -0.049)	(0.015, 0.022)	(0.015, 0.022)
0.925	-0.059	0.020	0.020
	(-0.071, -0.047)	(0.017, 0.023)	(0.016, 0.023)
0.950	-0.055	0.021	0.021
	(-0.067, -0.044)	(0.018, 0.023)	(0.017, 0.022)
0.975	-0.049	0.020	0.020
	(-0.062, -0.037)	(0.017, 0.023)	(0.016, 0.021)
1.000	-0.042	0.019	0.019
	(-0.054, -0.030)	(0.016, 0.021)	(0.014, 0.020)

Notes: 95% confidence intervals are in parentheses. *Source:* Authors' calculations based on IRAD.