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"Trapped Inside a World of Labor": Gender Gaps in Agricultural Productivity and Reproductive Labor in Malawi

by

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ABSTRACT

This paper investigates the relationship between the work of reproductive labor and the efficiency of gender-segmented farm production in Malawi. It starts by presenting quantitative estimates of the gender gap in agricultural productivity among small-scale petty commodity producers in Malawi, along with estimates of the proximate drivers of this gap, which demonstrate that men are more productive than women on the plots of land they operate even when accounting for differences in land quantity and quality. The paper then presents the results of qualitative research into the causes of the gender gap in agricultural productivity in Malawi. It is demonstrated that the principal cause of the gender gap in agricultural productivity in Malawi is women's responsibility to provide the reproductive labor of social reproduction. This, along with women's responsibility to provide unpaid farm labor on land that is operated by their husbands, generates significant time poverty for women farmers in Malawi. It also results in wives sustaining the accumulation practices of their husbands. These gender-segmented tasks are then reinforced in some households by gender-based violence, which has strong economic consequences. It is argued that the patriarchal structures that result in a lack of income pooling and wealth serve to materially undermine women's intrahousehold bargaining positions, a trend which is then reinforced by the lack of social legitimacy of the work that is typically assigned to women. The result is that it cannot be assumed that women and men share the same class location within rural petty commodity production in Malawi. Cumulatively, gender gaps in agricultural productivity among small-scale petty commodity producers in Malawi are a function of strongly gender-biased social norms and values that assign the reproductive labor of social reproduction to women.

KEYWORDS: Time poverty, Gender Gaps, Gendered Division of Labor

1. INTRODUCTION

An earlier paper (Akram-Lodhi 2024) engaged with Henry Bernstein's (2010) well-known four questions of agrarian political economy, re-framing those questions through a materialist gender analysis of intrahousehold relations based upon Seiz's (1991) bargaining approach. The purpose of that paper was to demonstrate how an empirical analysis of the work of rural small-scale petty commodity production, even when gendered, is compromised if it incorporates the reproductive labor of social reproduction and intrahousehold relations into its analysis. To make this argument, the provision of quantitative estimates of the gender yield gap in agricultural crop productivity in Tanzania demonstrated that gender-based social differentiation was evident.

However, socially constructed social norms and values shaped the legitimacy of the bargaining objectives of women, men, and children, as well as, in a mutually constitutive way, the material determinants of the relative positions of women, men, and children over positions in gendered divisions of productive and reproductive labor. Thus, the gender yield gap in agricultural crop productivity among small-scale petty commodity producers could not be understood without interrogating how the reproductive labor of unpaid care and domestic work limited the time for productive activities available to women who have day-to-day managerial control over plots of land. The requirement that women perform unpaid care and domestic work was reinforced through the use, by some men, of gender-based violence. It was argued that intrahousehold bargaining structured the mechanisms of redistribution within the household, and thus the extent of wealth and income pooling or lack thereof, and so the extent to which the rural petty commodity-producing household system was more or less "patriarchal" or more or less "egalitarian." "Patriarchal farming systems" were defined as those in which women participate in agricultural field work but men control decision-making and the allocation and disposition of household labor and the goods and services it provides (Deere and León 1982). It can be set beside "egalitarian farming systems" in that there is "a corresponding association between men's and women's participation in farm labor, decision-making and disposition" of household labor and the goods and services it provides through is allocation (Deere 1995, 56). It was clear that the continuum between patriarchal or egalitarian household structures shaped and were shaped by the extent to which class locations within households were either shared by individuals or

were different across individuals.

The purpose of this paper is to test these analytical findings within a substantively different setting: Malawi. The paper asks whether, in rural Malawi, it is appropriate to assume that the rural household acts as a single unit that allocates resources to maximize the welfare of all its members, and thus households produce a single class location for their members. In other words: in rural Malawi, can it be assumed that women, men, and children share the same class location if the work of production and reproductive labor is differentiated between them? While the setting of the paper is rural Malawi, it does not engage with the voluminous literature on gender and the agrarian change in rural Malawi because the paper is primarily concerned with the implications of empirical evidence for theory. In the following section, feminist political economy is introduced and its implications for the understanding of rural petty commodity production are examined, while the bargaining approach is also introduced as a means of identifying the material foundations of intrahousehold relations. By configuring bargaining within petty commodity production, both intra- and inter-household relations become predicated upon the material base. Section 3 then briefly reviews the process of agrarian change in Malawi and presents quantitative estimates of the gender yield gap in agricultural crop productivity to demonstrate why understanding gender is critical in the analysis of the organization of agricultural production and its outcomes. Section 4 digs into the reproductive labor of social reproduction to show how the gender yield gap in agricultural crop productivity in small-scale petty commodity production in Malawi cannot be understood without assessing how the reproductive labor of unpaid care and domestic work limits the time for productive activities available to women who have day-to-day managerial control over plots of land. Demonstrating the consistency of the quantitative data and the qualitative data shows the extent to which the gender yield gap in small-scale petty commodity producing agricultural crop productivity in Malawi is a function of the reproductive labor of unpaid care and domestic work and the intrahousehold relations upon which such work is predicated, which reduces the amount of time that women can apply their capacity to labor to the plots of land that they manage. In this light, Section 5 concludes the paper by summarizing the argument that in rural Malawi it cannot be assumed that women, men, and children share the same class location because the work of production and reproductive labor is so strongly differentiated between them.

2. FEMINIST AGRARIAN POLITICAL ECONOMY

2.1 The Four Questions

In this paper, class is used in classical terms, as the relationship between the direct producer and those who control the means of production, while social differentiation is the process that separates the direct producer from their control of the means of production. However, this is muddied by a key aspect of the lives of peasants in capitalist economic systems: petty commodity production. In the countryside, petty commodity producers are agricultural workers (both male and female) whose livelihoods are primarily but not exclusively based on having access to small amounts of land that is either owned or rented, and who mostly have diminutive amounts of basic tools and equipment and use mostly their own labor and the labor of other household members to work that land (Akram-Lodhi 2019). Rural petty commodity producers are thus petty capitalists of little consequence and workers with little power over the terms and conditions of their work (Bernstein 1991; Gibbon and Neocosmos 1985). Peasant petty commodity producers engage in small-scale, ecologically-based market- and non-market-driven interactions between labor and living nature, which leads to the mutual transformation of both, in order to productively enlarge the value created per unit of labor. Peasant petty commodity producers produce, that is, they use values to meet the reproductive consumption needs of the household, which can be defined in a variety of ways; exchange values to meet their obligations to those who hold political and economic power; and exchange values to generate agricultural surpluses the value of which can be realized through market sales. However, peasant petty commodity producers are only partially integrated into markets that work highly imperfectly, and so are not completely under the sway of the "market imperative" (Wood 2009). Finally, peasant petty commodity producers have a collective identity derived from the landscape within which they live and work. In this way, the peasant petty commodity producer is a multi-dimensional unit of social organization that brings together men and women and their simultaneous decision-making about production and reproduction.

In trying to understand the place of rural petty commodity producers in contemporary capitalism Bernstein (2010, 22–23) has suggested that their agrarian lives and livelihoods turn on four simple but not simplistic key questions:

- who owns what?
- who does what?
- who gets what?
- what do they do with it?

These four questions provide an elementary analytical framework that is of great use to students of agrarian political economy. They operate at the level of both the production unit and the sector. The first question concerns the distribution of assets in the countryside. Most importantly, this includes land, but also includes other assets such as tools, machinery, and equipment. The second question concerns the issue of work, and most importantly whether an individual is working for themselves or for an employer. In the countryside, the issue of work can be contingent upon the distribution of assets, and so the two questions are interrelated. The third question concerns the distribution of the product of the work being carried out using assets, to those who are working on the assets for themselves or for others, as well as those who are not working. The question of distribution is also contingent upon the issue of work and the availability of assets upon which to work, demonstrating that the three questions are interrelated. Finally, the fourth question concerns how the distributed product of the work is itself used, and whether it is being used to fund consumption or whether it is being used to fund accumulation. The question of usage is also contingent upon the distribution of the product, which is a function of the work that is performed on rural assets, and so all four questions are interrelated. Indeed, Bernstein notes that there is an implicit sequence to the questions, as "social relations of property shape social divisions of labor" (Bernstein 2010, 24).

Bernstein (2010, 24) says that the four questions "shape the uses of the social product for … reproduction." He does not determine whether, in turn, the process of reproduction might shape the uses of the social product. It is anecdotally self-evident (Rao and Akram-Lodhi 2021) that

- who owns what is gendered
- who does what is gendered
- who gets what is gendered

- what do they do with it is gendered

Thus, central to any analysis must be the fact that, within and between small-scale petty commodity producers, relations of gender inequality shape and are shaped by social relations between rural capital and rural labor engaged in petty commodity production, petty trading, and waged labor, and thus with the processes of peasant class differentiation that make some households prosperous and others poor (O'Laughlin 2022). These may have regional, national and international dimensions. The organization of women's labor in particular straddles the continuum between work in the household and work beyond the household and is shaped by the social norms and values that foster perceptions of the extent of women's freedom, their responsibilities, and the scope of their decision-making authority. This in turn shapes and is shaped by relations with husbands, sons, in-laws, kin, and friends. At the same time, however, these decisions have structural foundations, grounded in access to and control of resources, the performance of work, the operation of labor and product markets, and the concomitant impacts of the incomes and prices faced by women on their activities across productive and reproductive marketed and non-marketed labor. Men's decisions are similarly shaped, although with markedly different outcomes, by social norms, social relations, and market operations.[1]

2.2 Reproductive Labor and the Bargaining Approach

Reproductive labor primarily but not exclusively consists of:

- the daily work needed to provide sustenance for those in the household;
- the intergenerational work needed to reproduce the labor force, including biological reproduction and the care of dependants; and
- the work required to transmit the social norms, culture, and skills necessary to reproduce dominant sets of social relations both within and beyond the household (Edholm et al 1977; Beneria 1979; Rao and Akram-Lodhi 2021).

Reproductive labor is an important element of but not co-terminus with social reproduction, which can be defined as consisting of “all the work, unpaid and paid, and the socio-cultural

[1]For an excellent introduction to feminist political economy, see Cantillon, Mackett, and Stevano (2023).

practices, institutions and sectors that are essential for the regeneration" of "both life and capitalist relations" (Cantillion, Mackett and Stevano 2023: 45, Bhattacharya 2017). Much but not all reproductive labor involves what can be called "caring labor:" "the production and maintenance of human capabilities" (Folbre 2020, 4). Much caring labor is "intrinsically motivated" because the person performing caring labor does so because of "a sense of commitment or obligation or passion for the person who is being cared for" (Folbre 2005). However, significant care labor may be motivated by social norms and responsibilities. Most of the work of care globally is performed by women and girls. Most of it is unpaid, performed within the domestic household and in the wider community, using both kin and non-kin-based social networks. There is thus significant gender-based differentiation within households around the reproductive labor of social reproduction.

One way of seeking to understand the complex social and material processes across the continuum of gender divisions of productive and reproductive labor is through what has been called the bargaining approach (Seiz 1991).[2] The bargaining approach is based on the idea that private intra-household decisions are the result of a process of explicit and implicit negotiation among individuals within a household over the structural roles of its members. In other words, the extent to which households are more or less patriarchal or more or less egalitarian is an outcome of bargaining. The bargaining process gives rise to an intra-household distribution of resources and obligations based upon varying degrees of co-operation and conflict between women, men, and children in their social relations and responsibilities.

Seiz (1991) argues that bargaining can vary in form, ranging from covert and often implicit, informal acts of individual challenge and debate to explicit, organized group discussions and formal agreements; in content, ranging across a spectrum of economic, social or political practices, rules, and institutions; and in the arena in which it is conducted, ranging across the household, the community, the market and the state. Within the household, the main objects of

[2]This differs markedly from neoclassical bargaining theory. Neoclassical bargaining theory posits a problem in which rational self-interested individuals agree to divide the gains from cooperation, and is game-theoretic in nature. The classic outcome of bargaining is a Nash equilibrium, in which no agent has an incentive to deviate from their initial strategy (Nash 1950). The bargaining approach rejects individual optimization on the grounds that it fails to account for the impact of social structure on individual behaviour.

bargaining are:

1. the division of labor among various tasks;
2. the division of time between labor and non-labor; and
3. the distribution of goods and services to be consumed to reproduce the household.

While bargaining is an act of agency that impacts the structural characteristics of a household, this agency is constrained as the choices of individuals are shaped by socially constructed norms and values. Women, men, and children have different degrees of bargaining power in the process, based upon their gender, their generation, their ability, and the various markers of status that are ascribed to them. Critically, however, bargaining power is also shaped by structural factors in the household and in the economy. Seiz (1991) stresses the role of:

1. access to non-wage income or wealth among those undertaking the bargaining;
2. access to wage income among those undertaking the bargaining; and
3. access to formal or informal social support networks among those undertaking the bargaining.

Thus, while bargaining impacts the structural characteristics of a household, it is also impacted by the structural characteristics of a household.

However, going beyond Seiz (1991), the outcome of intrahousehold bargaining will also depend upon the amount of value that someone places on their own well-being relative to that of others. Individual understanding of self-interest and well-being can embody socially constructed perceptions of roles, responsibilities and obligations that can be contrary to material and emotional self-interest. This occurs because prevailing social norms and values can result in women, men, and children coming to accede to aspects of an identity—their identity—that are not inevitable or immutable and which detract from their well-being. As a result, the subjective perceptions of what women, men, and children contribute to and need from the household unit will also impact the objects and determinants of the bargaining process. In particular, women and men can place a different subjective value on their individual contribution to the household: the contributions of men are valued while the contributions of women are not or have a lesser value

than the contributions of men. This has a social determination; it is not natural but is rather an outcome of the hegemonic social norms and values within which individuals are enmeshed (Akram-Lodhi 1992). Yet it does have a material impact, as it will structure and shape the content of the bargaining — in effect, what is and is not subject to bargaining. There may be socially circumscribed limits to female autonomy that reinforce dependence, and which may be socially non-negotiable because of prevailing hegemonic norms and values. Thus, to the three material factors which shape bargaining power noted above, a fourth should be added: the socially determined legitimacy of the claims of the individual, which can differ between women and men because of the hegemonic social norms and values that produce the subordination of women. At the same time, however, the socially determined legitimacy of the claims of the individual can also have a material determinant: the threat or use of gender-based violence when individuals question the socially determined legitimacy of the claims made by an individual serves to reinforce existing household structures. When the fourth determinant of bargaining is aligned with the three identified by Seiz, it might be said that the bargaining approach is predicated upon the materiality of the ideological, which is mutually co-constitutive. The cooperative and conflictual bargains (Sen 1990) governing gender relations within the household are most fundamentally about the capacity of certain individuals to use hegemonic social norms to control labor and resources.

The bargaining approach allows the embedding of the reproductive labor of social reproduction and intrahousehold relations within an engendered analytical framework consistent with Bernstein's four key questions, as demonstrated in Akram-Lodhi (2024). However, it is not clear if the conclusions of Akram-Lodhi (2024) are unique or more broadly relevant. Therefore, by applying this framework to data from Malawi, it can either be more strongly established or refuted that intrahousehold relations and reproductive labor need to be more systematically incorporated into the analytical frameworks of agrarian political economy and in so doing a more thoroughly feminist agrarian political economy be established.

3. THE GENDER YIELD GAP IN AGRICULTURAL CROP PRODUCTIVITY IN MALAWI

3.1 Agrarian Change in Malawi

At independence in 1964 Malawi had a dualistic agricultural sector. Settler-colonial estate agriculture generated agricultural exports and some employment, while small-scale petty commodity production produced subsistence crops for the bulk of the rural population. Post-independence agricultural development policy sought to promote both sub-sectors by expanding estate agriculture, and particularly tobacco production, and by increasing agricultural productivity, particularly maize, as it was the most important food crop grown by petty commodity producers. The policy tools used to promote both sub-sectors in the late 1960s and 1970s included subsidies on key inputs, government-provided agricultural credit, and the single-buyer state-owned Malawi Agricultural Development and Marketing Corporation's guaranteeing product prices (Center for Environmental Policy and Advocacy 2007). However, an index of gross agricultural production per capita only increased by 15 percent, from 41.8 to 48, in the 26 years between 1964 and 1980.[3] Following the 1979 oil price shock, Malawi—under very strong pressure from the World Bank and International Monetary Fund—sought to introduce market-promoting economic reforms. In 1984, fertilizer subsidies were removed. After formalizing reforms into a structural adjustment programme in 1986, in 1987 agricultural marketing was liberalized and petty commodity producers were free to sell output to private traders. In 1990, petty commodity producers became free to move into cash crop production such as burley tobacco. The kwacha was devalued and eventually floated in 1994, and agricultural producer prices liberalized in 1995 (Center for Environmental Policy and Advocacy 2007).

However, as in other Sub-Saharan African countries, structural adjustment was not the panacea it was advertised to be. Domestic food markets remained fragmented, small-scale petty commodity production continued to experience an inability to access credit, and input prices increased much more quickly than output prices. Moreover, inequitable land distribution driven by the promotion of export-oriented agriculture meant that small-scale petty commodity producers were unable to take advantage of marketizing reforms (Chimgonda-Nkhoma 2007). The cumulative result was

[3]The data is from the FAOStat database (https://www.fao.org/faostat/en/#data) and is continually updated.

continuing low agricultural productivity and high food prices. Between 1980 and 1990 gross agricultural production per capita declined from 48 to 37.2, although between 1990 and 2000 gross agricultural production per capita more than doubled, to 66.2,[4] supported by a re-introduction of fertilizer subsidies that were heavily criticized by the international development institutions.

Between 2010 and 2020, the rate of growth of Malawi's GDP averaged just under 4 percent per year[5] while the annual rate of profit for Malawi increased from 30 per cent in 2010 to 35 per cent by 2017, driven by the capital-output ratio.[6] Agriculture, which as a share of value added has been steadily decreasing over time (IFAD 2016), and which contributes 30 per cent of GDP, has driven this growth (IMF 2017). In addition to being a key component of GDP, agricultural subsidies continue to be an important share of state spending, food prices dominate inflation, and tobacco is a key export; thus, when agriculture fails to grow, it acts as a key macroeconomic constraint on the growth necessary to lift Malawians out of poverty.

Poverty in Malawi remains a predominantly rural phenomena, with over 55 percent of rural households falling beneath the government's poverty line (IFAD 2016). Poverty is also profoundly gendered in Malawi; far more women are poor relative to men, and “female-only” households with no male adults are 50 per cent more likely to be poor (UN Women 2015). Gendered rural poverty is experienced through nutritional and food insecurities that are largely witnessed in chronic malnutrition as well as micronutrient deficiencies. That cash incomes are low is demonstrated by the fact that the experience of food shortages is all too common in rural Malawi (Republic of Malawi 2012). At the same time, when women do have access to some cash, gendered normative ideals mean that they are far more likely to spend it on their family's needs, whether it be in terms of food provisioning, meeting health expenses, or paying out-of-pocket household expenses, rather than meeting their own personal needs (FAO 2011a).

[4] The data is from the FAOStat database (https://www.fao.org/faostat/en/#data) and is continually updated.

[5]The evidence is found in the World Development Indicators of the World Bank, which are continuously updated, and which are available at https://databank.worldbank.org/source/world-development-indicators.

[6]The data is from the World Profitability Dashboard (https://dbasu.shinyapps.io/World-Profitability/) and is continuously updated.

Given that poverty remains rooted in the countryside in Malawi, agriculture in general, and farming and crop production in particular, is especially important for Malawi's peoples and their livelihoods. In Malawi, 85 per cent of the population resides in the countryside and 70 per cent of employment is rural.[7] The bulk of this employment—some 66 per cent of it—is as own-account workers, primarily on subsistence-oriented (*mlimi*), small-scale petty commodity producing farms that continue to indicate the importance of the farm economy in supporting livelihoods. Some of the remainder of rural employment is as waged labor on tobacco and sugar plantations, where typically men significantly outnumber women. By way of contrast, rural women are more likely than rural men to supplement their incomes by performing casual seasonal part-time, low-paid rural waged labor *(ganyu*) (FAO 2011a). Nonetheless, small-scale petty commodity production is the single most important source of income in Malawi.

However, rural on- and off-farm work is an inadequate indicator of the gendered character of work patterns in the countryside. If attention is paid to both productive work on the farm or for cash wages and the reproductive labor of social reproduction, it was estimated some years ago that women worked on average 10 hours a week more than men, and that rural women were twice as likely to be time-poor as rural men (Blackden and Wodon 2006: 104). This is largely because 82 percent of all unpaid care and domestic work is performed by women, as opposed to 18 percent being performed by men (Republic of Malawi 2012: 94). Indeed, as the climate breakdown worsens, women's unpaid reproductive labor responsibilities are becoming more stringent, as women are forced to walk longer distances for water and firewood, limiting their time for agricultural and food production (Government of Malawi 2015). The driver of women's disproportionate responsibility for reproductive labor are of course gendered normative ideals, which result in women having less time to engage in productive activities such as farming or waged labor. At the same time, one estimate suggests that women are responsible for performing between 50 and 70 per cent of all agricultural tasks and as a result produced 70 per cent of the food that is consumed locally (Future Climate for Africa n.d.). In this light, it is reasonably clear that Malawi's rural economy must be approached as a gendered structure.

[7]The data is from the International Labor Organization's ILOStat, which is continuously updated, and which is available at https://ilostat.ilo.org/.

Gendered rural dynamics and poverty prevalence in Malawi affects and is affected by other dimensions of gender inequality. Customary norms governing land rights mean only a third of agricultural holdings in Malawi are held by women (Future Climate for Africa n.d.). Women's farms are smaller than those held by men; for male-headed households, the average size of a farm is around 1.7 hectares, while female-headed households operate farms that are, on average, less than half that size (Republic of Malawi 2012). At the same time, women are more likely to operate more marginal land and are far less likely to have irrigated land. Similarly, women's access to other resources, most notably livestock, are also limited; where women do have control of livestock their herds are smaller than those of men (FAO 2011b). Moreover, with women having lower levels of education,[8] which has implications for skill development and access to productive work in the labor force, their capacity to adopt climate-responsive improved labor-saving production practices and technologies is constrained even if they were able to access the farm inputs, including improved seeds, crop health and plant protection measures, and ploughing equipment that require cash they typically do not have. In this regard, a lack of adequate access to financial resources, on manageable terms and conditions, further hampers women's subsistence production (FAO 2011b). This is a consequence of a lack of collateral as well as a lack of education (International Labour Organization n.d.). With rural women also having lesser access to agricultural extension services, a range of structural and institutional factors can serve to reinforce and be reinforced by gender-based social norms, sustaining gendered disadvantage.

3.2 Sources of Quantitative Data and Methods

Production data for the estimates of the gender yield gap in agricultural crop productivity for Malawi (UN Women, Poverty-Environment Initiative Africa and the World Bank 2015) was collected as part of the World Bank–supported Integrated Surveys of Agriculture done across the eastern and southern African regions. These surveys are nationally and sub-nationally representative.[9] The data are disaggregated at the plot level and contain information on which

[8]The data is from UNESCO's UIS.Stat, which is continuously updated, and which is available at http://data.uis.unesco.org/.

[9]This does not mean that the surveys are problem-free. Integrated Surveys of Agriculture have been argued to fail to capture important aspects of the role of labor markets and waged labor in household reproduction, as well as the impact of migration (Akram-Lodhi 2010). Moreover, Integrated Surveys of Agriculture can also only provide

member of the household makes agricultural decisions on each of the plots cultivated by the household. For comparative purposes, women plot managers are set beside a combination of both men plot managers and plots jointly managed by spouses, on the assumption that on many if not most jointly managed plots men may have a disproportionate role in final decision-making. The data used here comes from the third Integrated Household Survey collected in 2010/11 and consists of 16,192 plots of land, of which 26 per cent of plots are managed by women and of which 76 per cent of those women-managed plots were owned by women

Following the approach presented by Aguilar et al. (2014), estimating the agricultural crop productivity[10] of women and men plot managers required converting the agricultural crop output produced by women and men farmers on the plots they manage into monetary values by multiplying the crop output obtained per unit of land with the median unit and crop-specific price in the enumeration area, which ideally was local but which in some instances was at a higher level of aggregation. Aggregating the total value of all crops per unit of land associated with women and men, any difference in the value between women's and men's plots constitutes the unconditional gender yield gap in agricultural crop productivity. A conditional estimate of the gender yield gap in agricultural crop productivity was also undertaken, which considered the expectation that women plot managers operated smaller-sized plots of land of poorer quality. Next, the fraction of all land cultivated by women and men was calculated. Combining this fraction with the estimated gender yield gap in agricultural crop productivity, the percentage difference between harvested value of crop output was estimated for two alternative scenarios. In the first scenario, it was assumed that there was no difference between men's and women's agricultural crop output—that is, there was no gender yield gap and the agricultural crop productivity of women's plots of land was equal to that of plots of land cultivated by men. In the

data for questions that are asked; if important questions are not asked, the resulting data may not provide an adequate evidentiary basis upon which to undertake an analysis. It should be noted that a geographically disaggregated analysis would be richer, but space precludes such an analysis. It should also be noted that crop productivity is but one element of a rural petty commodity producer's overall productivity. Notwithstanding their shortcomings, it is disappointing that the Integrated Surveys of Agriculture have not been used as extensively as they could, and that they have been discontinued.

[10]Obviously, agricultural crop productivity is different from labor productivity, which is a superior measure. However, in the absence of farm-level labor productivity data it can be suggested that agricultural crop productivity can provide important insights into constraints on rural petty commodity production if used carefully.

second scenario the actual crop productivity estimates for women's and men's plots of land was used to calculate the value of crop output obtained from women's plots in the presence of the gender yield gap. The difference between the “no gender gap” scenario and the “gender gap” scenario provided the additional crop output value that would have been produced by eliminating the gender yield gap in productivity. Finally, the size of the gender yield gap relative to GDP was estimated. To do this, the share of agricultural GDP that came from crop production was estimated, as was the share of agricultural GDP in overall GDP.

Once the value of the gender yield gap was estimated, a Kitagawa–Oaxaca–Blinder decomposition analysis (Kitagawa 1955; Oaxaca 1973; Blinder 1973) was used to better understand the statistical sources of differential crop productivity.[11] The decomposition analysis identified endowment effects—differences in the levels of inputs going into farm production—and structural effects—differences in the returns to those inputs—as proximate statistical causes of the gender yield gap in agricultural crop productivity.

3.3 The Gender Yield Gap in Agricultural Crop Productivity[12]

Based on the data sub-sample, on average, the land farmed by women plot managers was, at 0.36 hectares in total, 10 per cent smaller than the total amount of land managed by men. Men plot managers used more family labor—labor completed by men, women, and children—on their plots of land than women plot managers; at the same time, significantly less men's labor from within the household was used on women-managed plots compared to men-managed plots, and indeed only 44 per cent of women plot managers used any men's labor at all from within the household. It is notable that, in terms of days per hectare, women family members working on women-managed plots worked far more than men family members working on plots of land managed by men. In terms of non-land, non-labor inputs, women plot managers had lower utilization levels, although the differences, while statistically significant, were small. An exception to this was manufactured inorganic fertilizers. Manufactured inorganic fertilizer was

[11]Feminist economics has levelled serious critiques of the Kitagawa – Oaxaca – Blinder decomposition approach (Small 2024), but it is used here because estimates of gender-based differences in agricultural crop productivity seem to only use this approach.

[12] This sub-section relies on data reported in UN Women, Poverty-Environment Initiative Africa and the World Bank (2015).

used on about 64 per cent of all plots, but the incidence of utilization was significantly lower on women-managed plots. Women plot managers were less likely to grow cash crops than men, but women plot managers grew a greater variety of crops. Men plot managers were far more likely to grow export crops than women plot managers. Women managers were also less likely to get access to an agricultural extension service and therefore missed out on possible ways by which to improve agricultural production.

Women plot managers were significantly less wealthy than men plot managers. Women plot managers were also on average five years older than men, had lower levels of education than men plot managers, were, at 70 per cent of all women plot managers, far more likely to be divorced, widowed, or separated (suggesting that there were fewer men family members), and had smaller average family sizes. All these descriptive findings were statistically significant.

Women plot managers in Malawi achieve lower output per hectare of land. Thus, the unconditional gender gap in agricultural productivity in Malawi estimated from the 2010/2011 Integrated Household Survey was 28.4 per cent and was strongly statistically significant. Closing this gender gap in agricultural productivity might result in a one-off increase of gross crop production of 7.3 percent, a one-off increase of $90 million in agricultural GDP, and a one-off increase of $100 million in total GDP. Such an increase had the potential to lift 238,000 people a year out of poverty, for a ten-year total of 2,380,000, a result that may be conservative because women were more likely than men to spend their limited amounts of cash on household consumption goods, which may have additional benefits in terms of poverty reduction. For comparative purposes, the conditional gender gap in agricultural productivity in Malawi was estimated to be 31.2 per cent and was strongly statistically significant. Some 94 per cent of the unconditional gender gap in agricultural productivity in Malawi was explained by the endowment effect: gender-based differences in access to productive inputs. Only 6 per cent of the gender gap in agricultural productivity in Malawi was explained by structural effects: gender-based differences in the returns that accrue to factors of production. At the same time, some elements of the endowment effect only had a small impact on the overall size of the gender gap in agricultural productivity.

Therefore, combining the endowment and structural effects the most important proximate statistical drivers of the unconditional gender gap in agricultural productivity in Malawi are displayed in Table 1. These included the inability of women plot managers to use men's labor from within the household, which accounted for 45.2 per cent of the gap and US$45.1 million in "lost" GDP;[13] the production of export crops by men plot managers, which in Malawi's case consist of tobacco and sugar, and account for 28.4 per cent of the gap and $28.4 million in 'lost' GDP; and men's ownership, and hence use, of many more agricultural implements and equipment, which accounted for 17.8 per cent of the gap and $17.7 million in "lost" GDP. Agricultural implements in this instance and in what follows are based upon an index constructed using principal component analysis, and in Malawi gender-based differences in the ownership of agricultural implements and machinery is pronounced for almost all of the variables included in the index; women plot managers own fewer tools and equipment than men plot managers. All the results were statistically significant.

Table 1. Proximate Drivers of the Unconditional Gender Gap in Agricultural Productivity in Malawi

Determinant	*Percentage of gap*	*'Lost' GDP, millions of US$*
Quantity of men's labor from within the household working on women's plots (in days per hectare)	45.2	45.1
Production of export crops	28.4	28.4
Ownership of agricultural implements	17.8	17.7
(all results statistically significant; percentages need not sum to 100)		

Undoubtedly, class-based distinctions between rural capital and rural labor in Malawi's countryside are increasing, but this is not the only driver of social differentiation. Applying Bernstein's (2010) four questions to the statistical analysis demonstrates a clear pattern of

[13]"Lost" in the sense that GDP would be higher were there no gender yield gap.

gender-based differentiation among small-scale petty commodity producers in Tanzania. Women managed significantly smaller plots of land than men plot managers and were far less likely to own that land. Women plot managers also had lesser quantities of non-land agricultural assets. Thus, there were clear gender-based differences in who owns what. In terms of who does what, women plot managers relied much more heavily on using a larger number of working days from women's labor; they did not have access to adequate amounts of men's labor from within the household for their plots. In terms of who gets what, the data on income flows is not available but it is known that plots managed by men were significantly more likely to grow cash crops than plots managed by women, which implies that men had higher incomes than women. Finally, in terms of what do they do with it, the data on expenditure or consumption was not available but plots managed by men were significantly more likely to have a higher level of wealth than plots managed by women, albeit at low levels of total wealth. Cumulatively, Bernstein's four questions uncover important mechanisms of gender-based social differentiation in rural Malawi. However, the data only allow the analysis of work in production. Work in the reproductive labor of social reproduction, and its implications for work in production, is missing.

4. REPRODUCTIVE LABOR AND THE GENDER YIELD GAP

4.1 Sources of Qualitative Data and Methods

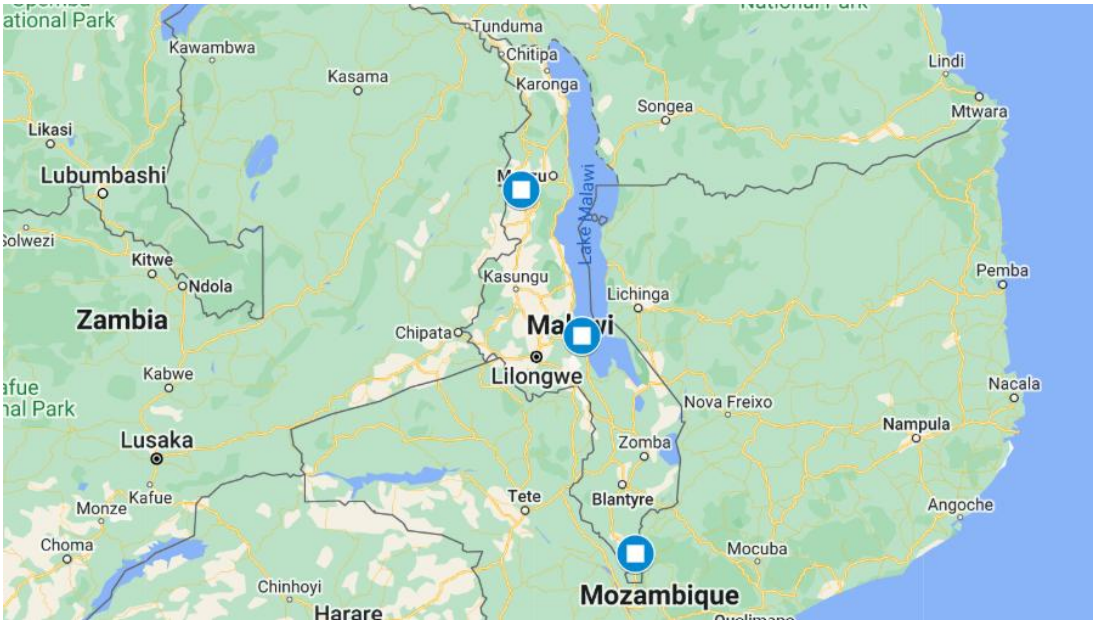
In order to understand whether reproductive labor impacted the work of production and the gender yield gaps in agricultural crop productivity associated with the work of production, qualitative data was collected. Qualitative data collection sites were purposefully selected to represent three different agro-ecological zones in Malawi. Efforts were made to ensure that the qualitative data collection sites were reasonably typical of a geographical and environmental cross-section of the rural areas of Malawi, and in so doing, heterogeneity was built into the qualitative data collection. However, within heterogeneity there were strong elements of homogeneity.

The central methodology governing the acquisition of data was the use of purposive non-probabilistic "common sense" sampling (Naryan 1996) that employed semi-structured informal

surveys and consultative discussions in community meetings, focus groups and with key informants. Focus group meetings also included women-only groups. The informal semi-structured research protocols were designed to mimic those of a typical farm management survey. Thus, questions were asked about structural constraints such as climate and the macro environment, assets, crop selection, inputs, production outcomes, marketing decisions, incomes, spending, access to finance and access to agricultural extension and training. In addition, questions were asked about non-crop agricultural activities and about non-agricultural activities, particularly those that generated incomes. The women-only focus groups were also asked extensive questions about reproductive labor and gender-based violence. Typically, community meetings and focus group discussions lasted between 90 and 120 minutes.

Data collection took place in October 2017 in the northern region, represented by the Mzimba district; the central region, represented by the Salima district; and the southern region, represented by the Nsanje district. The three districts are identified in Figure 1. In each district, three villages were visited during the fieldwork, for a total of 9 village visits, encompassing 4,730 farming households. Across the nine villages 273 people took part in the joint men and women focus group discussions; from this group, a subset of 146 women took part in the women-only focus group discussions.

Figure 1. Research Sites in Malawi



4.2 The Context in the Districts

In all three districts crop production and the keeping of livestock were the key economic activities supporting people's livelihoods. The bulk of agricultural production came from somewhat stratified subsistence-oriented small-scale petty commodity producers, who are significantly constrained in their productive activities. Plot sizes ranged from 0.2 to 4.0 hectares across the districts, and farms were fragmented. Crops raised included maize, sweet potato, tobacco, sugar cane, cassava, groundnut, sorghum, rice and legumes.

In all three districts, polygamous marriage practices and patriarchal asset ownership predominated, although Salima had matrilineal communities. In Mzimba and Nsanje, women did not bring resources other than their labor into the family and thus relied upon their husband or their husband's family for any land on which they worked. That land was under customary tenure but held by senior men within households over the generations; men said that they "owned" the land, even though they usually did not have formal title to it. When women marry in Salima's matrilineal communities, they bring land into the marriage and the husband relies on their wives or their wives' families for any land on which they worked. However, although the land was customarily held by women, the wife's brother ultimately controlled its allocation and utilization. Thus, even in matrilineal societies, men still "owned" the land. Moreover, men made most decisions about land issues.

Cultivation across the three districts followed labor-intensive tillage practices, with most farmers using hoes and machetes to clear land and plant and weed their crops. Only very few used ox-drawn ploughs and ridgers, and modern machinery was virtually absent. Most men and women plot operators used locally-bred varieties of seed for planting, although improved varieties of maize were used on a few farms in all districts, along with improved varieties of sorghum and millet in Nsanje. There was some use of irrigation across the districts, but rainfed cultivation dominated production. Chemical fertilizers were used in the districts, but most farmers tended to rely on local manures alone. Pesticides were more widely used, with 34 per cent of farming families in Mzimba using pesticides according to district officials, and Nsanje respondents reported widespread use of pesticides for plant protection. Hired labor was used to supplement family labor at critical points of the cropping cycle, but to different degrees across the three

districts, and in any event, to a limited extent.

Farming in the three districts produced cash crops for sale, subsistence crops for a household's own use and flexible ("flex") crops that can either be used for food or sold. Some crops—which tended to be either cash or flex—were grown only by men on the plots they managed. Although women took principal responsibility to produce food crops for household subsistence, they also produced some flex and cash crops.

Post-harvesting handling processes, inadequate transport, and a lack of access to reliable markets reduced the monetary value of agricultural surpluses. The result was relatively low cash revenues from crop and livestock marketing. In most cases, husbands made marketing decisions about livestock, cash crops, and flex crops. Money earned from marketing by husbands was not equitably shared with their wives; although the wife might receive a fraction of the money earned from marketing, the husband controlled the money and decided how it was used.

Low revenues from agricultural activities were accentuated by farming-induced soil erosion and the variable rains arising from climate change, which together drive the environmental degradation and climate breakdown witnessed in the three districts. Mzimba's district council identified eight climate-related disasters between 2007 and 2017 that affected over 2,000 households and placed a significant strain on district resources. Cumulatively, environmental degradation and climate breakdown contributed to low crop yields and food insecurity in the three districts.

In their planning documents, all district councils noted the specific and unique characteristics of women farmers. However, only Mzimba's socioeconomic profile details some of the disadvantages women farmers faced, notably:

- women spent 10 times as much time as men on housework;
- on average, women slept two hours fewer than men; and
- women had five minutes of leisure per day, compared to two hours for men.

This highlights the disproportionate burden of the reproductive labor of unpaid care and domestic work performed by women and the implications of such work for women's ability to work on their plots of land.

4.3 Drivers of the Gender Gap in Agricultural Productivity

Table 2 summarizes the most important drivers of the gender gap in Malawi's agricultural productivity, as identified by women respondents across the nine villages visited. The following subsections expand on these findings.

Table 2. Drivers of the Gender Gap in Agricultural Productivity in Malawi		
	Driver	Reason
Most important 1st driver	Women's reproductive labor responsibilities	9 of 9 villages identified it as the 1st most important driver
Most important 2nd driver	Economic effects of gender-based violence	6 of 9 villages identified it as 2nd or 3rd most important driver
Most important 3rd driver	Women's unpaid family farm labor responsibilities	5 of 9 villages identified it as 2nd or 3rd most important driver

4.3.1 Women's Unpaid Care and Domestic Work Responsibilities

In the three districts and nine villages, women's responsibilities to provide the reproductive labor of unpaid care and domestic work was by far the most significant constraint on their time that was identified. Unpaid care and domestic work had to be done at specific times and in specific locations. At the beginning of the day, it was necessary to prepare household members for the work or school day, while at the end of the afternoon and early evening it was necessary to prepare the evening meal and undertake a range of household chores. Women were also responsible for collecting firewood—a time-consuming activity in the three districts, and a task that had been made more demanding by climate breakdown. The collection of water had been made easier in most villages because of the installation of boreholes but was still the principal responsibility of women. Consequently, the reproductive labor of unpaid care and domestic work

could easily absorb five hours of a woman's working day, acting as an important constraint upon her ability to work on her plots of land.

Due to the gender-specific assignment of intra-household and on-farm tasks, any change affecting the household, the farm or the environment had different implications for how women and men used time. For example, an unexpected illness in a household means that a woman would devote often a substantive amount of time to care for the sick family member. As one key informant put it, "Women don't have time; they are always working."

4.3.2 Economic Consequences of Gender-Based Violence

The women-only discussion groups in the three districts unequivocally indicated that if women did not meet the household maintenance needs required of them, if they did not obey their husbands or if they were not prepared to have intimate relations with them, the result was gender-based violence. In six of the nine villages, women identified gender-based violence as the second or third most important reason as to why their on-farm productivity was lower than that of men, being deployed by some men to ensure that their choices and their decisions were enforced within the household.

Men who used violence could take control of cash and non-cash resources generated by women, including savings women held in village savings and loan groups. Thus, in all three districts some women noted that husbands stole the food stores maintained by their wives, selling it for cash to socialize with their friends. When women resisted such theft, they could be subjected to violence or the threat of violence. One woman noted, "Men take the money that women earn when they sell and then tell the women to work harder." Moreover, men used violence to enforce labor allocation decisions they made regarding the use of their wives' labor on their farm plots. Men also coercively disciplined women when they returned from collecting firewood or water or from marketing their crops.

In all instances when violence was used, the social power of husbands over wives was asserted. In polygamous marriages, that power was greater, but in monogamous marriages that power was still ever-present. Surprisingly, that power was even present in the matrilineal households in

Salima. The women-only focus group there explained that husbands retained the power to exit the marriage, placing women in a subordinate position. Thus, a significant number of men used violence, or the threat of it, to enforce their intra-household power.

Gender-based violence helps explain gender gaps in agricultural productivity. The women's-only focus groups noted that, because of violence, women might be less able or unable to work for periods of time—whether in unpaid care and domestic work, on plots of land or in casual waged labor or petty trading—because of injuries they may have suffered such as broken hands. When women were less able to work on plots of land, less labor was available for farm work, which could have implications for agricultural productivity, depending on the period in the crop cycle in which the violence took place. When women were not able to undertake casual waged labor or petty trading because of gender-based violence, less income was available for household maintenance needs—which could trigger more violence from men.

With some husbands using violence to seize cash and non-cash resources produced by their wives, there was a disincentive on the part of wives to save such resources. Further, the use of violence by some husbands served as a deterrent for wives to invest in improving the productivity of the plots of land that they operated. It also affected the ability to hire casual men's labor to work on women's plots. All of these had economic consequences for agricultural productivity, while limiting households' ability to meet food security objectives, improve nutrition, and ameliorate the poverty they might face.

Gender-based violence is thus connected with the lower productivity of women Malawian small-scale petty commodity producers. It is not being suggested that the elimination of violence would lead to an equalization of agricultural productivity, but the social norms and values that render violence acceptable to some community members needs to be addressed if the productivity of women's plots is to be improved. Having said that, the experience of gender-based violence should not be reduced to an issue of the denial of economic rights.

4.3.3 Women's Responsibilities to Provide Unpaid Family Farm Labor on Men's Plots

In monogamous marriages, husbands and wives worked together, but often performed different

tasks. Women often worked more than their husbands on jointly owned plots; one woman in a focus group described men as “lazy” because they worked less than three hours a day. Some men did not work at all, relying on the labor of women to produce food, flex, and cash crops. Regardless, husbands controlled the crops produced and decided when production was surplus to household requirements, when and where the crop would be disposed of, and how cash generated by crop disposal would be used. Women might have received a fraction of that cash, but they did not know how much that was relative to the total amount because their husbands did not tell them.

In polygamous marriages, senior wives were assigned plots of land by their husband, who usually resided with the most junior wife. This was also true in Salima, despite it being a matrilineal society. Thus, polygamous marriages had two types of farm plots: those controlled by husbands—which were commonly, if misleadingly, referred to as joint plots—and those controlled by wives, which tended to be inferior in terms of land quantity and quality. The plots of land controlled by wives were used to provide food for the wives’ household, including the husband when he chose to eat with them.

A neglected aspect of farming practices in Malawi is that, in polygamous marriages, senior wives are expected to work on their husband’s plots before being able to work on their own plots of land and can work on their own plots of land only when their tasks on their husband’s plots are completed. In five of the nine villages across the three districts, women stated that the expectation that they perform unpaid work on their husband's plots of land reduced the amount of time that they could devote to their own plots of land and in so doing reduced their agricultural productivity. Moreover, for senior wives, work on their husbands’ plots constituted a significant claim on their time. This time had an opportunity cost: when working on her husband’s plot the wife was unable to work on her own plot of land. This reduced labor availability for women’s plots at specific times of the crop cycle when more effective climate-responsive agricultural practices could be followed, such as land preparation early harrowing, early planting and early weeding, and soil fertility management practices, exacerbating women’s vulnerability to climate breakdown.

Women's focus groups consistently said that men over-reported their labor contribution on their plots and consistently under-reported the labor contribution of their wives. At the same time, husbands were not willing to work on the land that their senior wives controlled, which reduced the total labor available to work on women's plots of land. With senior wives expected to work on their husband's plots before working on their own plots, and with women respondents in all but one instance stating that men worked less than they claimed to be working on their plots of land, rather than conceptualizing the household as a resource pooling mechanism it is far more useful to understand husbands as using the household's structure and the social norms attached to it to effectively act not as co-workers but as managers of their wives' labor. In this light, polygamous marriages may be seen as a form of labor regime: husbands use marriage as a means of mobilizing women's labor to work on their land. The money earned by the labor of wives accrued not to them, but to the husbands. With the cash secured from their wives' work, men sometimes invested in a new junior wife, thereby increasing the labor pool for their own land. Moreover, once the crop was sold husbands did not share their incomes with their wives. In this light, if husbands are managers of their wives' labor, this is done to increase the income accumulated by the husbands.[14]

5. RECONCILING THE QUANTITATIVE AND QUALITATIVE ANALYSIS OF THE GENDER YIELD GAP IN AGRICULTURAL PRODUCTIVITY

Although it may not seem self-evident, the qualitative results, in fact, largely confirm the quantitative findings but do so in ways that add significant explanatory depth to the numerical findings. Simply put, the gendered work of production cannot be understood without understanding the gendered work of reproductive labor, and vice versa, in rural Malawi. This is demonstrated in Table 3.

[14]As John Harriss noted when discussing the findings for Tanzania, this helps explain why so many recently widowed rural men rapidly remarry: they require the labor.

Table 3. Reconciling Quantitative and Qualitative Findings					
2015 quantitative findings	2017 qualitative findings	The 2015 and 2017 findings are a result of ...	... which are materially a consequence of ...	... which results in ...	... that is enforced by ...
Lesser quantity of men's labor	Women's responsibilities for unpaid care and domestic work	Social norms around: - women's reproductive labor roles and responsibilities -men's productive labor roles and responsibilities	Unequal bargaining power derived from lesser: - assets - incomes - social support networks	- Time poverty, constraining wives' capacity to work on their plots; therefore, lesser labor inputs on their plots; and thus lower agricultural productivity - gender-biased distribution of time spent in labor and non-labor - gender-biased distribution of use values necessary for household reproduction	(the threat of) gender-based violence, which has economic consequences that impact upon agricultural productivity
Men produce higher-value crops	Economic consequences of gender-based violence	Social norms around: -men's roles and responsibilities -the enforcement by men of women's roles and responsibilities			
Men use superior agrarian technologies	Women's responsibility to provide unpaid labor on men's plots	Social norms around: - women's and men's productive roles and responsibilities -men's management of women's labor			(the threat of) gender-based violence, which has economic consequences that impact upon agricultural productivity

As Table 3 restates, the most important quantitative finding was that women's plots were unable to access adequate quantities of men's labor from the household. It was the qualitative data that suggested why this was the case, demonstrating that in monogamous households women were

expected to work on their husband's plots before undertaking any work on the plots of land that they managed. This was so even though husbands made decisions around crop selection and controlled crop output, without equitably sharing the proceeds from crop production. The inability to secure men's labor from the household to work on plots managed by women was even starker in polygamous households, where the qualitative data demonstrated that husbands were not willing to work on the plots of land they assigned to their senior wives and moreover expected their senior wives to work on their plots of land before any other on-farm operations are carried out. Thus, in both polygamous and monogamous households, men's unwillingness to work on plots of land managed by women is a reflection of the fact that husbands were effectively managing their wives' labor. This allowed men to have shorter, or no, working days on the farm than women and focus on managing their own or on joint plots, from which they control marketing decisions and the cash income that is generated.

The second finding of the quantitative analysis was that men's plots were more likely to produce higher-value crops. This is a function of gendered social norms, with men being expected to produce crops for sale but women's roles on the farm and in the household being enforced with gender-based violence. Thus, social norms explain both findings. The third finding of the quantitative analysis was that men's plots used superior agrarian technologies, as set out in Table 3. The qualitative findings explained why. Women working on their husband's plots would be using these superior technologies, and women did this work because of social expectations that they work on men's plots of land before they do any work on their own plots of land.

The quantitative findings thus reflect social norms and values that generate the expectation that the meeting of the needs of husbands and households are the first and foremost responsibility of women. It is these social norms and values that result in a gender-biased distribution of the reproductive labor of unpaid care and domestic work that was demonstrated in the qualitative data, and which is noted in Table 3. This, along with the expectation that senior wives work on their husband's plots or jointly managed plots where men control decisions and production, produced the time poverty that reduced women's agricultural crop productivity. Moreover, these social norms and values were enforced, in two ways. First, through a lack of women's education, as demonstrated in the quantitative data, which significantly detracted from their productivity.

Second, through the use by some men of gender-based violence, which was strongly noted in the qualitative data, and which had economic consequences: reducing women's labor availability and cash incomes, acting as a strong disincentive to save or invest, and affecting expenditure—all of which impacted the agricultural productivity of women's plots of land.

The qualitative data thus suggest that the reproductive labor of social reproduction and its enforcement structure produce the mechanisms of gender-based social differentiation in rural Malawi that can be identified in the quantitative data using Bernstein's (2010) four questions. Bernstein's framework itself, however, does not allow an exploration of how this operates, but Seiz's bargaining approach does. It is clear that women within households do not control adequate amounts of assets, and especially land, where they control any assets at all. What is clear is that while women do undertake wage income, such activity is a function of social expectations that they will assume principal responsibility for household consumption and in any event, wage income is less than that required to impact upon intrahousehold bargains. Finally, women do have access to support networks within their villages, but these support networks are significantly resource-constrained. Men’s management of women’s labor and the potential for gender-based violence accentuate these disadvantages, diminishing agency and access to community-based interventions through social networks. In other words, women within households are materially disadvantaged in the bargaining process when compared to men. This disadvantage structures the division of labor within the household among various tasks, with women taking principal responsibility for the reproductive labor of unpaid care and domestic work and men using their wives for income-generating cash crop production, the flows from which they control. The division of time between labor and non-labor clearly favors men, with women subject to time poverty. Finally, the distribution of use values needed for the reproduction of the household is asymmetrical because men within the household disproportionately control the income and wealth of the household. The pooling of income and wealth is at best very limited and at worst not present. Reinforcing these material phenomena socially constructed social norms and values shape the legitimacy of the bargaining objectives of women, men, and children, and, in doing so, in a mutually constitutive way, the material determinants of intrahousehold bargaining. Cumulatively, women's bargaining position and agency is significantly weaker than that of men.

Embedding Seiz's bargaining approach within Bernstein's four questions unpacks the mutually constitutive character of gender and class relations within and between households enmeshed within a spectrum of rural petty commodity-producing household systems. It makes clear that gender and class relations can be inextricably entwined and the deep and intricate level of interconnection between them cannot be separated or disentangled easily. Social norms and values shape both the perceptions and the reality of the extent of women's freedom, their responsibilities, and the scope of their decision-making authority, cumulatively resulting in women being "trapped inside a world of labor."[15] While production takes place within the market imperatives of the commodity system and reproductive labor operates outside the commodity system reproductive labor is a necessary prerequisite for accumulation or dimunition to take place. Not withstanding asymmetrical structural positions in production and reproductive labor within the household, women, men, and children can share a common class location beyond the household when the rural petty commodity-producing household system is relatively more egalitarian and intrahousehold mechanisms of redistribution established through bargaining lead to a pooling of wealth, output and incomes. However, this need not be the case, and clearly is often not, as the evidence from Malawi suggests; gendered agents within the household do not necessarily have the same class status beyond the household precisely because of the fact that women, men and children have asymmetrical structural positions in production and reproductive labor within the household.

6. CONCLUSIONS

This paper has examined how an analysis of the work of rural production can be limited even if it incorporates gender into its analysis. The provision of quantitative estimates of the gender yield gap in agricultural crop productivity among petty commodity producers in Malawi demonstrated that gender-based social differentiation was evident in the data. However, socially constructed norms and values shape the legitimacy of the bargaining objectives of women, men, and children, as well as, in a mutually constitutive way, the material determinants of the relative

[15] Chumbawamba (1986) "Dutiful servants and political masters." *Pictures of Starving Children Sell Records* (LP17571 | 75). London: Agit-Prop Records.

positions of women, men, and children over positions in gendered divisions of productive and reproductive labor. Thus, the gender yield gap in agricultural crop productivity cannot be understood without examining how the reproductive labor of unpaid care and domestic work limits the time for productive activities available to women who have day-to-day managerial control over plots of land. It can also not be understood unless consideration is paid to the expectation that women work on their husband's plots of land before their own, and in so doing contribute to the accumulation of their husbands. The requirement that women perform the reproductive labor of social reproduction may be reinforced through the use, by some men, of gender-based violence. Finally, in seeking to integrate an analysis that digs into both the work of production and reproductive labor a reconsideration of Henry Bernstein's four key questions of agrarian political economy was offered. Intrahousehold bargaining, as depicted by Seiz, structures the mechanisms of redistribution within the household, and thus the extent of wealth and income pooling or lack thereof, and so the extent to which the rural petty commodity-producing household system is more or less patriarchal or more or less egalitarian. Patriarchal or egalitarian household structures in turn shape and are shaped by the extent to which class locations within households are shared by individuals or are different across individuals. The evidence demonstrated that, in Malawi, households are patriarchal structures.

The empirical findings contained within this paper substantiate the proposition that it cannot be assumed that women, men and children share the same class location when the work of production and the reproductive labor of social reproduction is so strongly differentiated between them and when marriage acts as a means of mobilizing labor for accumulation by men. It cannot be assumed that the rural household acts as a single unit that allocates resources to maximize the welfare of all its members. Agrarian political economy must take this seriously. It is time for rhetorical pieties about gender to stop. It is time for agrarian political economy to demonstrably and consistently incorporate feminist theories and methodologies into its analysis and embrace feminist agrarian political economy.

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