



*Empowered lives.
Resilient nations.*

Closing Gender Gaps in Labour and Productive Resources in Africa

Analytical Report



Table of Contents

Introduction	3
1.1. Methodology	4
1.2. Stylized facts on linkages between gender gaps in labor, productive assets and growth	5
2. Root causes of gender inequality in labor and asset ownership	8
2.1. Voices from the field identify structural barriers to gender equality	8
2.2. Gender gaps in labor driven by education, skills, social norms and discrimination	9
2.3. Gender gaps in ownership and control of assets from legal and customary discrimination	12
3. Costing the impact gender gaps in labor and assets	16
3.1. Costing gender gaps in labor participation and productivity	16
3.2. Costing economic costs of inequity in paid and unpaid work	18
3.3. Costing gender gaps in equal rights to productive assets	19
3.4. Costing the gaps in the productivity of women’s assets	21
3.5. Costing gender gaps in financial inclusion	21
4. Benefits of closing gender gaps in labor and assets on achievement of Sustainable Development Goals.	24
4.1. Closing gender gaps in wages and labor force participation to achieve inclusive and sustainable employment (SDG 8)	24
4.2. Closing the gap in labor and access to productive assets for gender equality (SDG5), food security (SDG 2), and inclusive and sustainable employment (SDG 8)	26
5. Key findings	28
6. Recommendations	29
References	31
Appendices	
APPENDIX A: Methodology for quantifying labor productivity gap	36
APPENDIX B: Methodology for quantifying opportunity cost of unpaid care work	37
APPENDIX C: Methodology for quantifying gender gap in agricultural productivity	38
APPENDIX D: Methodology for quantifying labor productivity gap	39
Contacts	40
Report	40
Press	40

List of Figures

Figure 1: Time use patterns	8
Figure 2: Gender gap in labor force participation rates, 1991-2015 (% points)	9
Figure 3: Horizontal and vertical segregation in labor market	10
Figure 4: Distribution of land ownership in Africa, 2000-2012 (%)	14
Figure 5: Relationship between women's labor force participation, education, maternity leave and social norms.	16
Figure 6: Relationship between women's legal rights and control of asset	20
Figure 7: Female account ownership by level of legal barriers to equal access	22
Figure 8: Explaining female-to-male ratios of distribution account holdership	23
Figure 9: Potential economic gains from increased gender equality	25

List of Tables

Table 1: Gains from closing gaps in labor productivity and labor force participation.	18
Table 2: Annual wage opportunity cost of extra unpaid care work	19
Table 3: Gender gaps between male and female agricultural productivity	21
Table 4: Economic impact of closing gaps in labor participation, paid work, employment and productivity	25
Table 5: Benefits of closing gender gaps on achievement of SDGs 2, 5 and 8.	27

List of Boxes

Box 1: Methodology	4
Box 2: Maternity Leave and Child Care Support in Senegal	11
Box 3: Examples of women's unequal care burden	12
Box 4: Land Reforms in Rwanda	15
Box 5: Customary law vs legal rights in Sierra Leone	15

Introduction

Africa's robust economic growth has benefited from sound economic and political governance, social investments and increased attention to human rights and people's freedoms. African governments have widely acknowledged the importance of gender equality and women's rights for economic and social development as evidenced in the African Charter of Human and Peoples Rights (1981) that is ratified by 53 countries and re-affirmed by the Maputo Protocol on the Rights of Women in Africa (2003). Recently, these commitments have taken the form of the global *2030 Agenda for Sustainable Development, Africa's Agenda 2063* as well as national legislative reforms including new constitutions; constitutional amendments; changes to legislation; new laws; and institutional mechanisms for gender equality and women's empowerment (UNDP, 2016: 6, 98). Advancements in gender equality have also been spurred through fiscal policy, including public expenditures and subsidies; legal and regulatory measures; and set-aside programs (ibid: 6).

However, despite significant achievements in social, economic and political spheres, gender inequality persists in Africa. On average, women in sub-Saharan Africa achieve only 87% of the human development outcomes attained by men as demonstrated by the Gender Development Index (GDI) (ibid, 2016: 27, 169). In addition, the economic costs of gender disparities in Africa are substantial, preventing Africa from reaching its full economic potential. For instance, gender gaps in women's labor force participation alone cost sub-Saharan Africa US\$ 95 billion each year between 2010 and 2014 – approximately 6% of GDP (UNDP, 2016: 73). In this regard, the Africa Regional Human Development Report 2016 (AfHDR 2016) on *“Accelerating Gender Equality and Women's Empowerment in Africa”* provided a substantive political economy analysis of gender inequality in Africa, and identifies clear steps for redressing these inequalities.

This report responds to a specific recommendation of the AfHDR 2016 and its Agenda for Action related to “using gender equality as the organizing lens for development planning at macro, sector, national and sub-regional levels in order to promote the adoption of legal reforms, policies and programs that advance gender equality”. This study translates the findings from the qualitative political economy analysis in the AfHDR 2016, *Background Papers and the Interactive Field Study* into quantitative indicators and estimates to inform economic policy and decision making. The study identifies gender gaps in labor and control over productive resources and quantifies the economic costs of these gender gaps. The benefits of closing gender gaps in labor and assets are then linked to the achievement of related goals and indicators of Agenda 2030 in terms of gender equality, labor and productivity. The report showcases concrete examples from country case studies to highlight good practices in gender equality that enhance economic growth and human well-being.

Three key take-aways emerge from this work. First the underlying causes and structural barriers to closing gender gaps in labor and access to productive assets are identified as legal discrimination, gender norms or stereotypes and women's disproportionate care burden. Second, the study costs the impact of gender gaps in labor and productive assets on economic growth and productivity. Finally, the benefits of closing gender gaps in labor productivity and participation are related to relevant SDGs to inform economic policy decision making.

“Macro-economic policies that fail to fully incorporate women's potential as a substantive component of any growth-oriented strategy risks diminishing potential economic growth outcomes.” (UNDP, 2016: 73).

1.1. Methodology

The study identifies structural barriers related to gender equality in employment and access to productive assets in Africa, quantifies the economic benefit of enhancing gender equality and links this to relevant SDGs. This analysis is guided by three over-arching hypotheses. First, women's economic activity is restricted and limited by structural barriers such as legal inequality, gender norms and socio-cultural institutions. Second, low productivity of women's labor, and limited access to productive assets including financing has a negative impact on macroeconomic growth. Finally, that closing gender gaps in women's economic activity would have a strong positive influence on macroeconomic growth and Africa's achievement of the SDGs.

The report begins with stylized facts on the relationship between gender inequality, economic growth and diversification in Africa. This is followed in section two by identification of key structural barriers that contribute to gender inequality in labor and access to productive assets as expressed from field studies carried out by UNDP in Gabon, Sierra Leone, Mali, Niger, Rwanda and Zimbabwe. Section three of the report then quantifies the gender gaps related to labor and productive assets and the impact of gender inequality in these dimensions on economic growth in selected countries. Throughout the report, examples of good practice in enhancing gender equality in policy and practice in each dimension are highlighted. The report concludes in section four with key recommendations for policy-makers in the context of the SDGs. Using the methodology outlined as follows, this report finds considerable economic impacts from gender gaps in women's' labor force participation and control over productive assets. It provides evidence of the contribution of various dimensions of gender equality towards the achievement of sustainable development goals related to economic growth (Goal 8) – through women's employment; increased agricultural productivity (Goal 2) – through more equal access to productive assets; and gender equality (Goal 5) – through redistribution of unpaid care work.

Box 1: Methodology

The report adds to extensive background research carried out by UNDP Africa in nine research papers and a qualitative interactive study on how vested interests block women's progress in work, leadership and freedom from violence that covered Gabon, Niger, Mali, Rwanda, Sierra Leone and Zimbabwe. Quantitative analysis is based on models that explore the relationship between gender inequality in labor participation, labor productivity and access to productive assets to quantify the economic impacts of various dimensions of gender inequality. These models include: a) Costing gender gaps in labor productivity (Annex A); b) Costing opportunity cost of unpaid care work (Annex B); c) Costing gender gap in agricultural productivity – unequal access to inputs, technology, finance (Annex C) and d) Costing gender gap in wages and labor force participation (Annex D).

Estimates of the economic impact of gender gaps in labor and productive asset and the economic benefits of closing these gaps were generated using data from World Bank Global Findex Database; ILOSTAT database; UNDP Gender Inequality Index; OECD Gender, Institutions and Development Database (SIGI); World Bank Gender Statistics database; UN "The World's Women" statistics; World Bank's enterprise surveys; and FAO's Gender Land Rights database.

The analysis also highlighted a substantive lack sex-disaggregated data on labor productivity which limits the scope of some of these findings. In particular, data for hourly pay for worker (6 countries), data on productivity per worker (6 countries), and ownership of agricultural land (24 countries). In order to address these shortcomings in the data, proxies are used where possible. Weighted averages have also been calculated in order to make the findings more applicable across African countries.

Further research is required outside the scope of this report related to the influence of governance structures and institutions including crisis or post-conflict scenarios on gender equality in Africa. In addition, the substantive lack of sex-disaggregated production data for many African economies limits both the scope of the analysis and the key findings.

1.2. Stylized facts on linkages between gender gaps in labor, productive assets and growth

Empirical studies indicate that there could be significant macroeconomic gains from more equal participation in the labor market and educational attainment. Cuberes and Teigner (2014) estimate that for 28 African countries included in their sample, the gap in women's participation in the labor market of 15.9 percentage points costs an average loss of up to 8.5% in income per capita. Klasan and Lamanna (2009) point out that in order to realize potential macroeconomic gains, there must be a dual emphasis on closing gender gaps in labor and education. Using an extended time period (1960-2000), they claim the combined "costs" of education and employment gaps in the Middle East and North Africa (MENA) and South Asia amount to 0.9–1.7 and 0.1–1.6 percentage point differences in growth respectively compared to East Asia. Their research mirrors findings in the AfHDR 2016 that indicates that growth in MENA, South Asia and Sub-Saharan Africa is slower due to slow growth in female employment.

Similarly, Thévenon et al. (2012) indicate a positive and potentially significant impact of the increase in women's educational attainment relative to men on output per capita growth—as measured by GDP per capita—using cross-country/time series data covering 30 OECD countries from 1960 to 2008. Citing the example of 21 EU countries, where GDP per capita is projected to grow by an annual average of 1.9%, gains can be expected from an increase in female labor force participation and, therefore, from a convergence between male and female rates. In fact, the projected gain from a 50% decrease in gender gap is a 0.3 percentage point increase in the average annual growth rate in GDP per capita, and 0.6 percentage points if female labor force participation converges fully towards male rates (similar to the gains expected on average among the OECD countries).

There is a reciprocal relationship between promoting women's participation in the workforce and advancing economic development. Recent publications by Kochlar et al. (2016) go even further to indicate that women's participation in the labor market represents an important driver of growth. Similarly, Elborgh-Woytek et al (2013) reviewed evidence and supported findings from Loko and Diouf, 2009; Dollar and Gatti, 1999 Cuberes and Teignier, 2012 and Aguirre and others (2012) in terms of GDP per capita losses and expected gains attributable to gender gaps in the labor market. Aguirre et al (2012) estimate that raising the female labor force participation rate to the level for males would boost GDP by 34 per cent in Egypt and 12 per cent in the United Arab Emirates, for instance.

There is ample evidence that when women are able to fulfill their full labor market potential, broad and significant macroeconomic gains can follow – yet the reverse may not be true. Kabeer and Natali (2013) argue that the relationship between gender equality and economic growth is an asymmetrical one. The evidence that gender equality, particularly in education and employment, contributes to economic growth is far more consistent and robust than the relationship that economic growth contributes to gender equality in terms of health, wellbeing and rights. From a growth perspective, therefore, the promotion of certain dimensions of gender equality may appear to offer a win-win solution but from a gender equity perspective, there is no guarantee that growth on its own will address critical dimensions of gender equality. Kabeer and Natali (2013) note that growth strategies and policies need to be reformulated to be more inclusive in their impacts and redistributive measures need to be put in place to ensure that men and women benefit more equally from growth.

Scholars have also analyzed the nature of the relationship between gender equality and economic diversification. Recent publications indicate how economies that have advanced women's inclusion are in fact more diversified and outperform those that have not (Lemmon and Vogelstein, 2017). Kazandjian et al (2016) demonstrate that inequality of opportunities and lower female labor force participation are associated with lower economic diversification, which is characterized by a number of different revenue streams and types of exports. They indicate that gender inequality decreases the variety of goods countries produce and export, particularly in low-income and developing countries. This happens through at least two channels: to start with, gender gaps in opportunity,

such as lower educational enrollment rates for girls than for boys, harm diversification by constraining the potential pool of human capital available in an economy. Secondly, gender gaps in the labor market impede the development of new ideas by decreasing the efficiency of the labor force.

Some scholars caution however, that even though gender equality has a positive bearing on economic diversification, under certain social, economic and political settings, economic diversification can have an adverse impact on some spheres of gender equality. For instance, findings from an ethnographic study in northern Tanzania from 2006–2009 by Manzanera-Ruiz et al (2016) indicate that the shift to a market economy influenced the nature of production relations, deepening inequalities in gender relations and the position of women. Here, discrimination against women in cash crop production has been a result of the dominance of patriarchal ideologies that have influenced their status in production over a prolonged period. Women have seen their workload increase as increasingly commercial agricultural production uses more male manual labor which has reduced men's share of household tasks. In addition, recent market liberalization has reduced men's capacity to generate income and forced women to compensate by working more outside the home individually and collectively through women economic groups that own and manage assets. This leads to changing distribution of work between women and men and potential conflicts.

Notwithstanding the consensus among experts that gender equality can contribute to improved economic outcomes, current research does not go far enough to account for the multidimensional nature of gender inequality (i.e. in educational, employment, political, and religious spheres) and analyzes the relative impact of such dimensions on economic growth. For Mitra, Bang, and Biswas (2015), studying gender equality in education or employment without controlling for other facets of equality can lead to biased estimates and erroneous conclusions. Mitra, Bang, and Biswas (2015) use exploratory factor analysis to identify two key dimensions of gender equality: equality of economic opportunities and equality in economic and political outcomes. Based on regression analysis conducted on 101 countries (taken over non-overlapping five-year periods from 1990 to 2000) they indicate that a standard deviation improvement in equality in economic opportunity increases growth by 1.3 percentage points and a corresponding improvement in participatory equality improves growth by an average of about 1.2 percentage points. However, this impact is contingent on a country's stage of development: while developing economies experience significant improvements in growth from greater equality in opportunity, developed societies see significant improvements resulting from greater equality in outcomes.

Along those lines, Moorhouse (2017) contends that the real challenge in gender gap analysis is to develop a better understanding of how various aspects of gender equality contribute to economic performance and explores how education, economic and religious practices affect economic growth through their influence on gender equality. Based on a sample of 64 countries from 2000-2011 and an endogenous growth model shows that countries that protect the economic rights of women experience higher real GDP per capita growth rates. Furthermore, after controlling for a country's religious affiliation, the importance of religion to the lives of people living in a country had a negative influence on economic growth; meaning, intensely held religious beliefs are strongly correlated with gender inequitable views. Moorhouse (2017) claims these attitudes might serve as an important channel through which gender biases are institutionalized in economic practices and act to slow economic growth. Moreover, belief systems that act to limit the contributions of girls and women have the potential to reduce living standards and economic opportunities for all.

Unequal ownership and control over productive assets remain a pressing issue in the gender empowerment discourse and even more so in the context of Sustainable Development Goals (SDGs) related to ending poverty in all its forms everywhere (Goal 1), sustained, inclusive and sustainable economic growth (Goal 8), achieving gender equality (Goal 5) and reducing inequality (Goal 10). Ayanwale et al (2017) claim that asset accumulation is a precondition for economic empowerment, and sustainable accumulation of assets is key to upward mobility beyond survival, and towards economic empowerment. In this logic, economic empowerment involves movements and transitions out of poverty, with asset building thresholds in terms of physical, human, social, financial and ecological capital. Hence, economic empowerment can only happen when women are able to accumulate and sustain assets in relation to income, consumption and production. Research links lack of ownership and control rights to productive assets to negative development outcomes, especially in relation to gender equality and women's empowerment. Accordingly, Kelkar (2011) goes on to show a positive correlation between women's ownership of specific assets and access to productivity increasing technologies.

Building on this theoretical work, this report examines the negative effect of gaps in female labor productivity, gender inequality in the labor market and in ownership over productive assets and finds considerable economic impacts from closing gender gaps in women's labor force participation and control over productive assets. These are comparable to figures obtained from studies in Africa (Teigner, 2014) and other developed and developing regions by Aguirre et al (2012), Klasan and Lammana (2009) and Thévenon et al. (2012). This report however adds to the literature by quantifying specific structural barriers to gender equality and analyzing the differentiated economic impacts of closing gender gaps in labor force participation and control over productive assets on economic growth, labor and agricultural productivity according to various stages of human development.

2. Root causes of gender inequality in labor and asset ownership

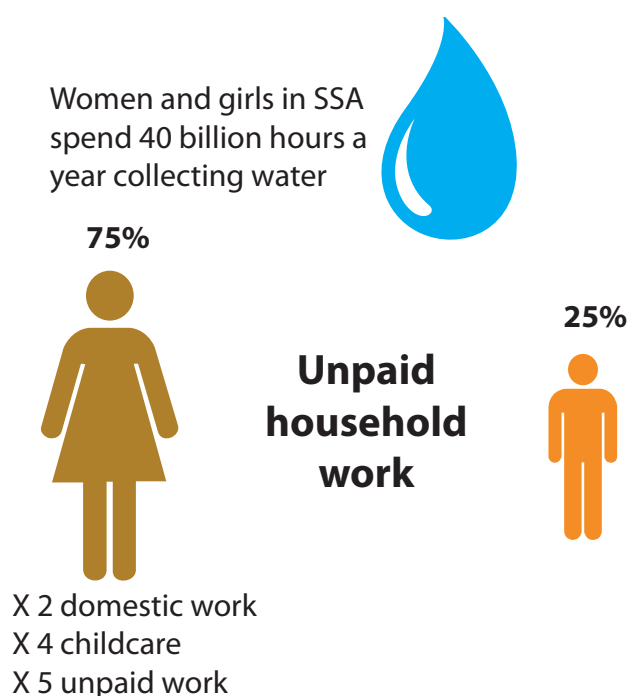
This section explores the underlying and root causes of existing gender gaps in two specific dimensions that have a significant impact on Africa's economic and social transformation and the achievement of the SDGs – paid or unpaid work and access to productive assets.

2.1 Voices from the field identify structural barriers to gender equality

Despite progress, gender inequality in employment and access to productive assets remains pervasive across Africa driven by key structural barriers. The first of these structural barriers is legal discrimination as a result of legislation gaps, implementation gaps, and customary law. The interactive study conducted in Sierra Leone, for example, found that: “institutional and normative structures such as family systems, infrastructure, gender ideologies, socio-cultural ideologies, etc. affect women’s empowerment and gender equality in varied ways” (IGR, 2016: 13). Cultural values are also reflected within laws, as evinced by the discriminatory clauses (section 27, clauses 4d and e) enshrined within the constitution that allows for discrimination based on tradition.

The second key structural barrier to gender equality in the workplace is inequitable gender norms and gender stereotyping. In recent attitude surveys in Malawi and Kenya, 48% of women and 43% of men in Malawi agreed that, in general, it is better for a family if a woman has the main responsibility for taking care of the home and children rather than a man. In Kenya, 46% of the women agreed compared to 43% men (Afrobarometer, 2017). In each country there were more rural residents and those with less education who agreed with the statement. This is corroborated by the AfHDR 2016 interactive study in Niger where some religious leaders assert that religious texts stipulate that women should stay at home and not work. This is also the case in Zimbabwe, where the main concern expressed among focus group respondents was about “churches recommending that men take many wives, including girls, who were then not able to attend school and work” (UNDP, 2015b: 18).

Figure 1: Time use patterns



The third key structural barrier to gender equality is women’s disproportionate care burden that prevents their full and equal participation in social and economic life. This is most starkly evident in patterns of time use (Blackden and Wodon, 2006: 1), as shown in Figure 1. In Mali, where rural women “spend an estimated 17 times the amount of time that men spend on work that is not counted in System of National Account (SNA) measurements”, this “reduces their income, access to credit, and freedom to participate in community-based initiatives, agricultural trainings and capacity buildings” (UNECA 2012: 31). In Malawi, 97% of rural women are involved in subsistence agriculture – coupled with their care responsibilities, which leads to a “16-hour work day for the average Malawian woman” (World Bank, 2003). As a result, they are “twice as likely to be time poor as men, restricting their ability to diversify and enter into paid activities or access the benefits of development initiatives” (Blackden and Wodon 2006: 114).

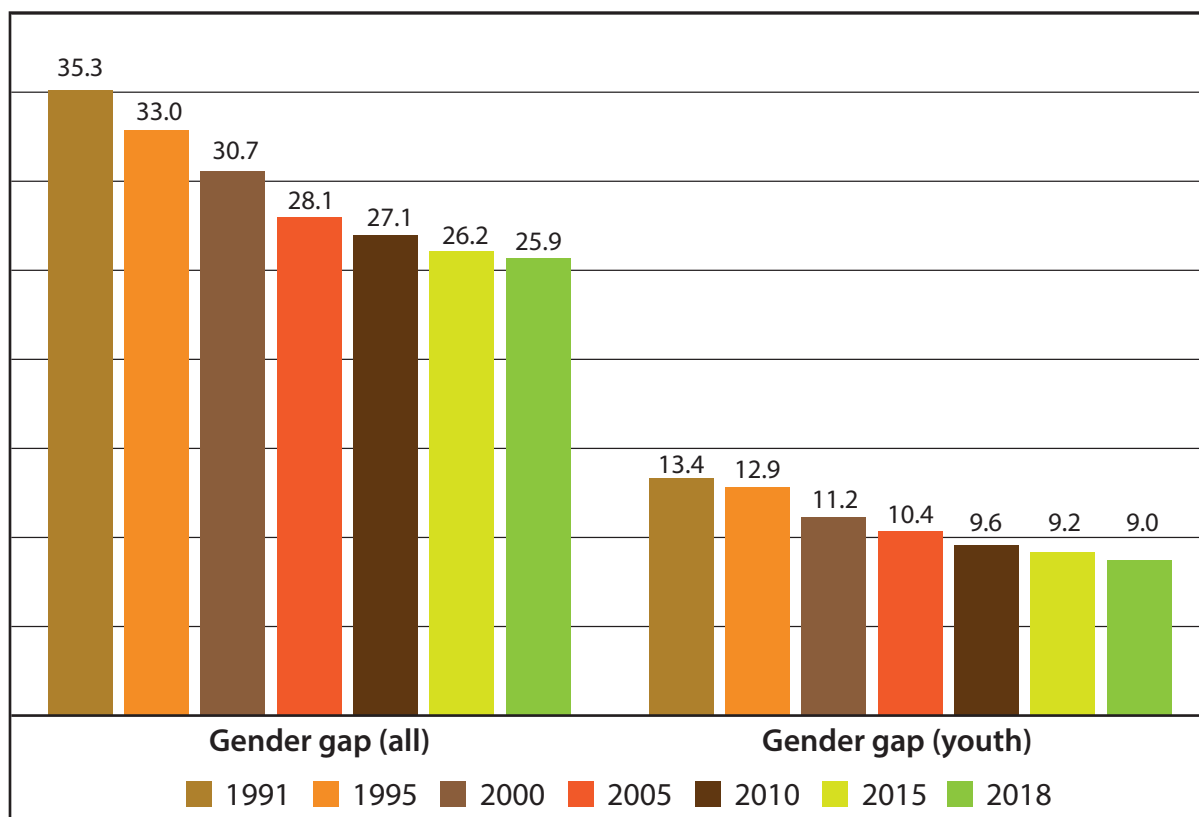
Source: UNDP, 2016; Budlender, 2008.

On average, women spend twice as much time as men on labor-intensive domestic work – child and elderly care, cooking, cleaning, and fetching water and wood (UNDP, 2016: 4). In certain countries, such as Tanzania, women spend over five times more than men on domestic work (Budlender, 2008), while in Ghana, Tanzania and Zambia, they spend three times the time on transport activities (Blackden and Wodon 2006: 8). This is due to the higher burden of household tasks and the gender norms which mean that “women lack access to rudimentary transportation, like bicycles, let alone motorized transport” (Bibler and Zuckerman, 2013). Studying four sub-Saharan African countries, Kes and Swaminathan (2006: 18-19) found that women worked an average of 467 minutes a day, compared to 371 minutes for men.

2.2 Gender gaps in labor driven by education, skills, social norms and discrimination

Africa’s gender gaps in labor force participation have narrowed over time but remain significant and intersect with age and informality. The gender gap in labor force participation for women and men has fallen to 26 percentage points in 2018, while the gap between young women and men’s labor force participation is only 9 percentage points as illustrated in Figure 2 (ILO, 2018). African labor markets are “heavily gender-segregated” with women largely concentrated in low-paying occupations – whether in the formal or informal sector. Although women’s labor force participation in Africa is among the highest in the world – at an average of 65% in Sub-Saharan Africa and 22% in Northern Africa, compared with 56% in North America, and 51% in Europe and 46% in Asia and the Pacific – most women in Africa are engaged in informal self-employment (ILO, 2018), i.e. low-paid, low-productivity work.

Figure 2: Gender gap in labor force participation rates, 1991-2015 (% points)



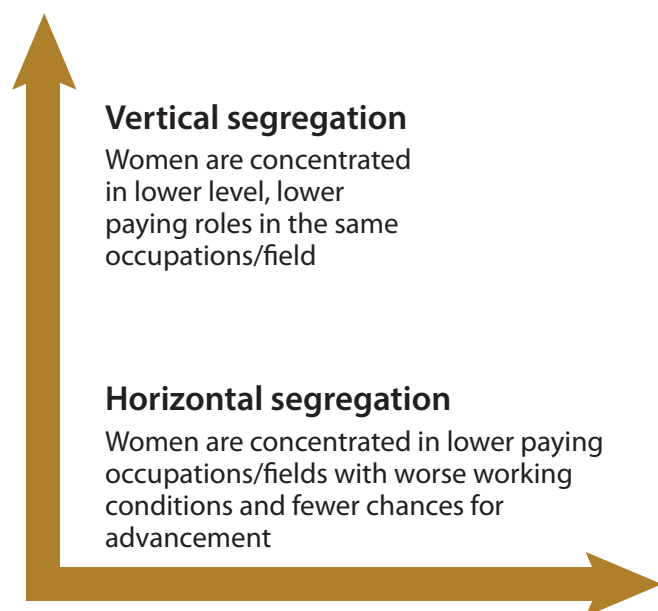
Source: ILO, 2018

There are four key features of gender inequality in the African labor market:

1. Concentration of women workers in the informal sector. The gender gap in vulnerable employment has widened – in 1991, 79.8% of women and 62.9% of men were in vulnerable employment; in 2017, these figures stood at 75.9% and 58.4% (ILO, 2018). Survey data for 2010-2016 suggests that the average share of non-agricultural employment outside the formal sector in 12 countries¹ in sub-Saharan Africa is about 67 per cent of all employment (ILO, 2018). Of which female employment outside the formal non-agricultural sector is 76% compared to 59% for men.

2. Horizontal and vertical segregation. Women across Africa are “concentrated in lower paying occupations, with worse prospects for advancement and with poorer working conditions” (Kabeer, 2012). They are under-represented in scientific or technological fields, like engineering and information and communications technology. Instead, women tend to be clustered in low paid occupations like manual labor (UNDP, 2016: 62) and in “export-oriented industries” like textiles, food processing. In the services sector, they are concentrated in nursing, teaching, clerical work and secretarial jobs (Wekwete, 2014: i104). See Figure 3

Figure 3: Horizontal and vertical segregation in labor market



Source: Author's own elaboration based on UNDP, 2015b

3. Substantive wage disparities between women and men. The unadjusted gender pay gap is estimated at 30% (UNDP, 2016: 4). On average, the African Development Bank (2015: 18) finds that the “male-to-female earnings ratio is 2.8 among individuals with no education, but is close to parity among individuals with tertiary education.”

4. Low female ownership of businesses. Only eight of 40 sub-Saharan countries have “a gender balance in SME ownership or a situation favorable to women” (World Bank, 2016). In the rest, women are a minority in terms of SME ownership, and in many countries less than 20% of SMEs have any level of female ownership (UNDP, 2016: 70). Women entrepreneurs are concentrated in the informal sector, and “tend to be entrepreneurs of necessity, rather than opportunity, driven into small business by the lack of alternatives” (AFDB, 2015: 10).

The underlying and root causes of these disparities in the labor market that disadvantage women – particularly their concentration in the informal sector, wage disparities and low ownership of businesses – are clustered around gaps in education and skills, overt and implicit legal and normative discrimination; pervasive gender stereotypes and inequitable gender norms; and the associated unequal burden of care borne by women. With regard to the **education and skills gap**, the Focus Group in Niger interviewed as part of UNDP’s Interactive Vested Interests Study noted that girls are often “driven to choose subjects [in education] which provide narrower options for later employment than boys”, and discouraged from pursuing potentially more lucrative paths such as business, thus contributing to horizontal segregation in the workplace (UNDP, 2015b: 2). Simply put, the critical gap in skills between men and women means that when women do enter the labor market, they are often confined to low paying jobs or informal employment.

¹ Angola, Benin, Ghana, Gambia, Liberia, Madagascar, Mali, Namibia, Niger, Tanzania, Uganda, South Africa

In terms of *legal discrimination*, only two countries – Angola and Côte d'Ivoire – have passed laws allowing employees with young children to have flexible or part-time work hours (UNDP, 2016: 125) while Senegal is implementing a progressive maternity leave policy. (See Box 2). A mere 15 African countries have laws against gender discrimination in hiring (AFDB, 2015) and only 15 have explicit legislation on equal remuneration for work of equal value (UNDP, 2016: 125). In some countries women face legal discrimination concerning their employment. For instance, women are restricted from working at night in Madagascar, prohibited from working in mining in Cameroon, or in factories in Benin (OECD, 2016; World Bank, 2016).

Box 2: Maternity Leave and Child Care Support in Senegal

Senegal is one of only 18 countries across Africa where “governments provide child support services for children below primary school-going age” (UNDP, 2016: 66; World Bank, 2016a). Under the Senegalese Labor Code, women are entitled to a mandatory minimum of 14 weeks (98 days) paid maternity leave at 100% of wages. The rate of 100% is “applied to the daily wage received on the last pay day, including allowances directly related to the nature of the work” (ILO, 2014: 16-17). The government is responsible for paying maternity leave benefits. The country is also one of only 29 globally which have introduced an absolute prohibition against the dismissal of a worker during maternity leave, for any reason. The ILO (1998) notes that, “if the protection against dismissal is to be effective, it must also cover the period following the employee's return to work.” Worldwide, the period of protection varies from just covering the nursing period to a global high of 15 months in Senegal and Mali (ibid). It is one of 35 countries globally which have accepted the ILO Social Security (Minimum Standards) Convention, 1952 (No. 102), which includes maternity health care and cash benefits under Part VIII of the Convention (ILO, 2014: 2, 5). It is also one of only nine countries – of a total of 51 countries surveyed by the ILO in Africa – which met the parameters of ILO's Maternity Protection Convention (No. 183) (ibid: 31).

In relation to *gender norms and stereotypes*, attitudes to women's work – and the positions they occupy – these vary greatly depending on economic status and other factors. For example, in Rwanda, one woman in a focus group of business owners suggested that “if as a business woman you earn more than your husband, he will be happy to have the money! I just bring home presents from Dubai”. In contrast, in a focus group in Zimbabwe respondents were all concerned about the attitudes of their partners to their work responsibilities. “What will my husband say if I'm coming home late?” (UNDP, 2015b: 19). This demonstrates the importance of exploring gender inequality in an intersectional manner, and not assuming universal experiences for all African women.

The causes of this disproportionate burden of care work are rooted in social norms and gender roles. As opposed to men, who are “generally able to focus on a single productive role, and play their multiple roles sequentially, women [...] play these roles simultaneously and must balance simultaneous competing claims on limited time for each of them” (Blackden and Wodon, 2006: 1).

In Niger, Focus Group participants for the Vested Interests Study noted that “parents often overruled girls' choices for apprenticeships” or insisted on “traditionally” female occupations like tailoring (UNDP, 2015b: 5). Similarly, nationwide trends can follow suit, such as Nigeria's self-perception of being a country “producing good wives and mothers to build the nation” (Odejide, 2014). In Niger, men whose wives hold positions of responsibility are called “Mijin haija” (the husband of Madame) and his community will think he has upset the gender balance (UNDP, 2015b). In Zimbabwe, even though women with resources are able to hire outside help, or rely on extended families for care, this is only useful to a certain extent. Husbands often want to be taken care of specifically by their wives. “He will say ‘I don't want to eat food the maid cooks’” (ibid). This underscores that the issue is not only about needing work to be done, it is rather about women's specific obligations to demonstrate that they are fulfilling their family's expectations.

Finally, a key root cause of pervasive gender gaps in labor is the **unequal care burden** that falls on women rooted in social norms and gender roles as illustrated in Box 3. In Africa, as in other regions, social contexts, norms, values, and attitudes give rise to historical gender roles. These dictate the kinds of work – paid and unpaid – typically assigned to women and men, which lead to “markedly different opportunities and outcomes for human development” (UNDP, 2016: 65). Social reproduction – “the process that makes it possible for individuals, families, and society itself to continue” – depends in large part on the “care economy”. That is, the “unpaid care work performed mainly by women [and girls] for sustaining families, households and societies on a daily and generational basis” (Randriamaro, 2013).

Box 3: Examples of women’s unequal care burden

Care work includes the direct care of persons – children, the elderly, and other members of a household – as well as other tasks required for caregiving (Blackden and Wodon, 2006: 5), such as “subsistence food production, transportation, fuel and water collection” (Bibler and Zuckerman, 2013: 3), as well as cooking and cleaning (UNDP 2016: 4). Although such work may be paid, the “vast majority of care work is carried out by unpaid wives, mothers, sisters, and daughters” (Bibler and Zuckerman, 2013: 4). While it is vital for human development, care work often remains invisible, ignored or under-represented in national accounts (ibid, 2013) and unaccounted for in GDP (Elborgh-Woytek et al., 2013: 8). Bundlender (2008) estimates that the monetary value of unpaid care work could make up 10-39% of a country’s GDP. Time poverty is endemic among women in sub-Saharan Africa, particularly affecting rural or impoverished women (AFDB, 2015). Many African women “face a double workday – at least 50% longer than men’s—making them chronically time-poor” (ibid: 14).

“Despite women settling down into families their schedules are still maintained as those of single women, with no contingency for emergencies that they face while addressing sick children and reduction of work-loads to allow for family time.” – Respondent, AFHDR 2016 Survey. Care responsibilities have a particular bearing on women’s ability and desire to take on paid work. As they must allocate so much of their time to care work, this ultimately constrains their ability to participate in the labor market, or pursue more lucrative formal job opportunities (Elborgh-Woytek et al., 2013: 8).

Domestic chores like collecting fuel or water are “labor-intensive” and “an obstacle to pursuing other activities such as education, paid work and leisure” (UNDP, 2016: 65). This is compounded by the lack of infrastructure – which places additional burdens on women. For example, Rwanda’s National Gender Policy points out that “poor conditions of feeder roads and long distances from water restrict women’s economic growth” (Bibler and Zuckerman, 2013: 18; Republic of Rwanda Ministry of Gender and Family Promotion, 2010).

Web survey data conducted for UNDP’s Vested Interests Report points to “the inability to combine work and family life” as one of the two main barriers to women’s “effective contribution to the work of the organizations”. This inability, in turn, is attributed to a lack of flexible working conditions, a lack of supportive policies and the limited enforcement of existing policies (UNDP, 2015b: 19).

2.3 Gender gaps in ownership and control of assets from legal and customary discrimination

Women play a central role in the agricultural economy, producing most of Africa’s food and comprising two-thirds of the agricultural labor force (World Bank, 2014: 11). While rates vary across sub-regions and countries, over 60% of all women workers in Africa are engaged in agriculture, and “concentrated in time- and labor- intensive activities, which are unpaid or poorly remunerated” (ILO, 2016a), occupying “strenuous and sometimes dangerous jobs and limited access to health care and sick leave” (UNDP, 2016: 41).

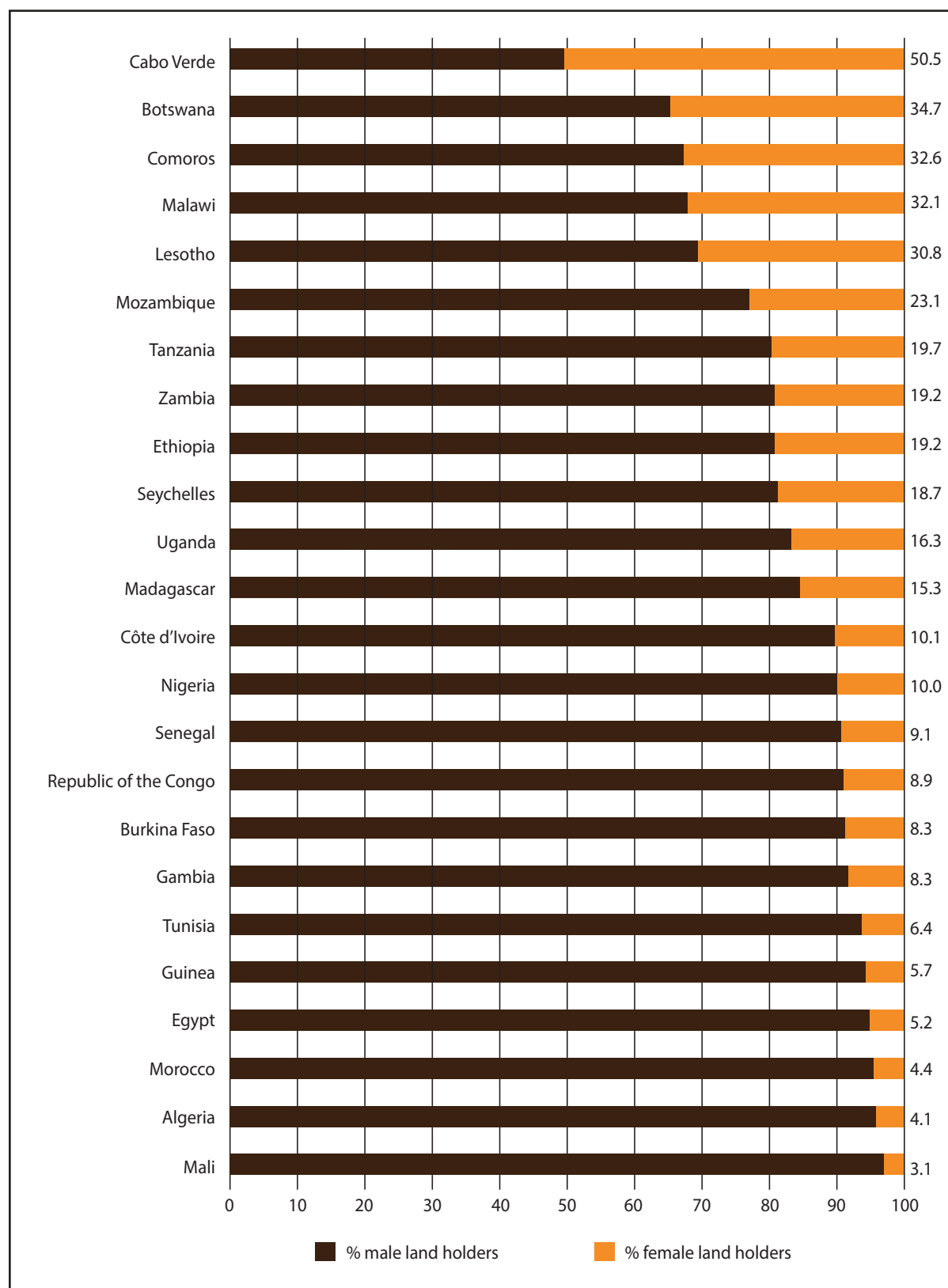
Across the region, gender equality is “hampered by bottlenecks related to land ownership, lack of access to agricultural inputs and extension services and lack of credit facilities in the businesses they run” (Wekwete, 2014: i88). Locking women “out of land ownership, access to credit and productive farm inputs, support from extension services and access to markets” is highly problematic as these factors are “essential to their productivity” (World Bank, 2014: 4). The African Development Bank (2015: 11) directly correlates the fact that women farmers have “less access to essential inputs – land, credit, fertilizers, new technologies and extension services” to the fact that “their yields tend to be significantly lower than men’s.” In Ethiopia women farmers produce, on average, 26% less than male farmers, in Ghana they produce 17% less (ibid: 11), 13% less in Uganda and 25% less in Malawi (World Bank, 2014: 9). Taking a more “refined” measure of these gaps – i.e. “accounting for differences in plot size and geographic factors” – reveals even greater disparities. Between women and men with plots of similar sizes in similar contexts, “the gender gaps range from 23% in Tanzania to a strikingly large 66% in Niger” (ibid).

The bottlenecks which women experience in terms of asset and land ownership – including limited access to inputs, extension services, credit, and markets – and their associated low productivity are grounded in two key structural barriers. These include legal discrimination with respect to land rights and conflicts between statutory provisions and customary laws – both of which ultimately disadvantage women. The Women’s Empowerment in Agriculture Index baseline report finds that access to and decisions on credit had a significant influence on women’s disempowerment. In this study, women in Ghana, Kenya, Liberia, Malawi, Rwanda, Uganda and Zambia who are empowered in agriculture also reported significantly greater decision-making and autonomy. Key aspects blocking women’s empowerment included low levels of group membership and heavy workloads as indicated by women who work more than 10.5 hours a day. Low group membership limits access to social capital and may indicate social or cultural norms that discourage participation in activities outside the home. Limited control over resources was cited as making the third greatest contribution to women’s disempowerment (IFPRI, 2012: 7).

Yet despite women’s contribution, agricultural land holdings in Africa are owned overwhelmingly by men as illustrated in Figure 4. On average just 19% of agricultural land is managed by women and they are four times less likely than men to control the land they work on, demonstrating a striking power imbalance between men and women in the agricultural sector (FAO, 2017). Women predominate in casual agricultural labor, identified as among the “least desirable” kind of work available, laden with stigma as it is viewed “as a last resort and distress-driven job” (Oya, 2010: 27). Even when women do own land, FAO (2010) found their parcels are generally of smaller size and lower quality than men’s. On average, although women’s levels of land ownership are markedly low, they represent the bulk of the agricultural workforce – in Kenya 96% of women in rural areas work in agriculture, in Malawi women comprise 70% of the agricultural workforce. Even in Ghana, which is “perhaps the least unequal”, the value of men’s landholdings in monetary terms is three times greater than that of women (Deere and Doss, 2006). Yet Rwanda provides an example of changing land reform regimes that favor women (see Box 4).

“The vast majority of women in the agricultural sector operate small plots of land, are under-equipped and have limited access to agricultural credit” - Mali Interactive Study Report (UNDP, 2015b).

Figure 4: Distribution of land ownership in Africa, 2000-2012 (%)



Source: FAO's Gender and land rights database (FAO, 2017)

Box 4: Land Reforms in Rwanda

Gender equality is a core component of the land reforms introduced by Rwanda since 1999. These include the Organic Land Law, the Succession Law on the matrimonial and inheritance regime, the Abunzi Law, the Strategic Road Map for Land Tenure Reform, and the National Land Policy (Polavarapu, 2014: 117). These frameworks encompass provisions that “affirmatively ensure gender equality” – i.e. laws which grant women equal rights to own and use land, own marital property and inherit land, as well as programs to raise awareness of women’s land rights. The reforms also involve measures which are geared towards development goals but simultaneously have an impact on gender equality – such as provisions to formalize or clarify land tenure, land use, and dispute resolution (ibid: 118).

As Polavarapu (2014: 118) argues, “under this new framework, Rwandan women have moved closer to equal and effective exercise of land rights.” It is especially significant that, under the Land Tenure Regularization Process “for the first time in Rwandan history, a wife has equal rights of their land and property as that of her husband.” (Kairaba and Daale Simons, 2010: 14). The government is also working to strengthen the rights of women who are not officially married, who can be disadvantaged by current regulations (World Bank, 2014: 45). The World Bank (2014: 45) has hailed the initiative as “an inspiring model for other countries grappling with issues of land insecurity and gender inequality”. The country’s efforts to “reform the land tenure system as well as grant women rights to own and use land on an equal status with men” reflect the many “great strides Rwanda has made in establishing gender equality not just in law, but also in practice” (Polavarapu, 2014: 107).

Structural barriers to women’s control over productive assets are largely concentrated in legal discrimination. For example, legislation requiring equal inheritance between sons and daughters only exists in 26 countries (UNDP, 2016: 6). In five countries – Cameroon, the Republic of the Congo, Congo, Sudan and Zambia – women “have no legal rights to own, administer or manage non-land assets in their own name” (OECD, 2016: 58). In addition to gaps in legislation, customary law is a challenge in many countries. While Liberia’s Constitution and Property Law grant equal land ownership rights for women and men, “customary laws that favor male ownership tend to prevail, nullifying the statutory equality provisions” (ibid: 58).

In a number of customary legal systems as illustrated in the example from Sierra Leone (Box 5), “women’s rights to inherit land are restricted, and they are vulnerable to dispossession on divorce or widowhood” (UNDP and the Huairou Commission, 2014: 7). Unmarried women, or those who are not listed on title deeds, are especially likely to be disadvantaged as a result (UNDP, 2016: 58). As Ndulo (2011: 89) explains, customary law has “a great impact on the lives of the majority of Africans in the area of personal law in regard to matters such as marriage, inheritance, and traditional authority”. In practice its application can be discriminatory, as it “tends to see women as adjuncts to the group to which they belong, such as a clan or tribe, rather than equals.”

Box 5: Customary law vs legal rights in Sierra Leone

The current Constitution of Sierra Leone (1991, amended 2001) provides for equal rights for men and women in Article 27, the principle of non-discrimination does not apply in all areas. While the preamble of the Constitution expresses the equal rights of citizens, a clause under article 27, 4.d makes allowance for discrimination that is culturally rooted, and thus accepts inequality in relation to marriage and other areas, undermining the equality clause in the preamble.

The “Chieftaincy Act of 2005”, which supports discrimination in a clause that allows for the restriction of women to contest for chieftaincy where traditions and culture permit, such as in the north of the country (IGR, 2016).

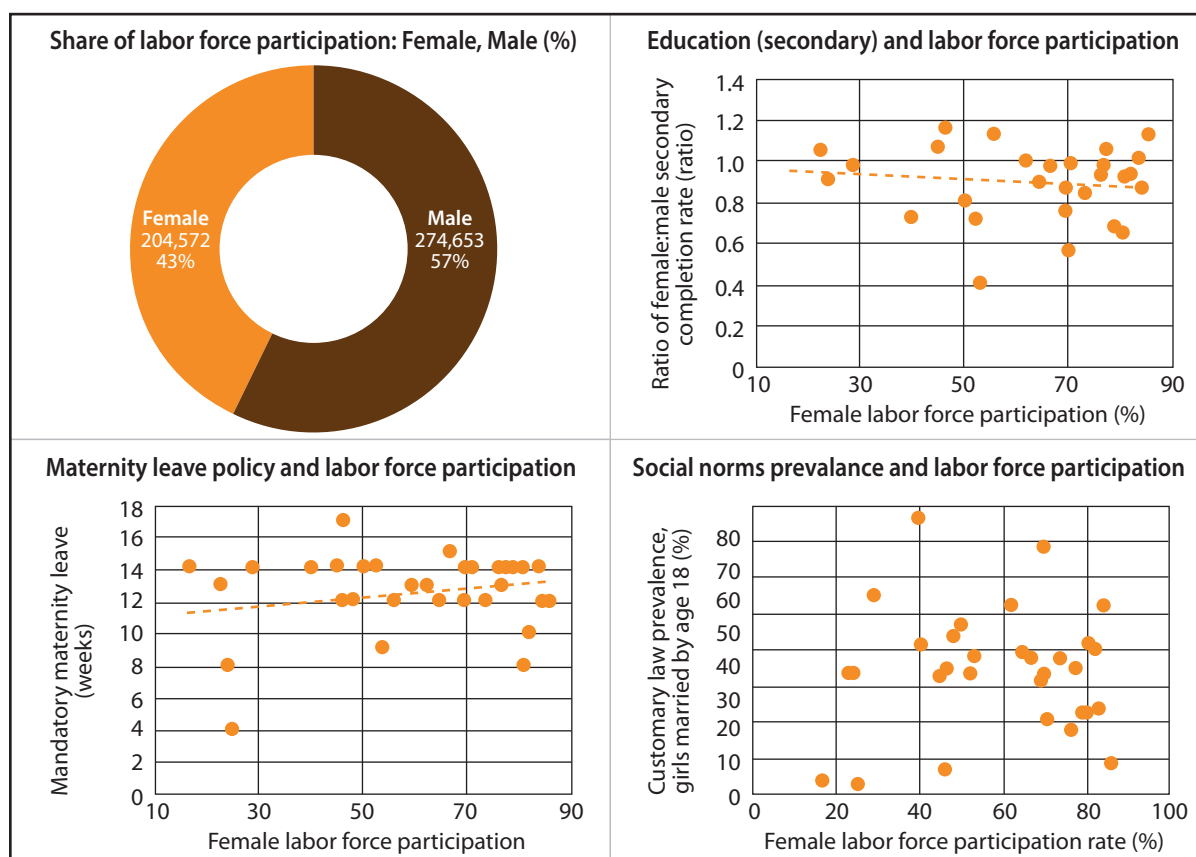
The Sierra Leone’s Devolution of Estates Act (2007) grants women and men equal rights to inheritance from their spouse, it “excludes ‘family property’, which applies to over 80% of land.” Such property “falls under customary law which accords women a smaller share than men” (OECD, 2016: 40).

3. Costing the impact gender gaps in labor and assets

3.1. Costing gender gaps in labor participation and productivity

According to ILO estimates for 2017, 274.65 million men in Africa participate in the labor force, versus 204.57 million women. In order for women's participation rate to become equivalent to men's in 2017, an additional 74.38 million women would need to enter the labor force. The number of women excluded from the labor force is almost equal to the population of the Democratic Republic of Congo (77 million) which is Africa's fifth-largest nation by population. If women who are currently excluded from the workforce were enabled to participate as productive members of the economy at the same rate as men, this could hypothetically result in an overall increase in economic output of \$962 billion. This figure is based on an assumed average annual output per worker in Africa estimated at \$12,933 and a further assumption that there would be additional jobs rather than shifting jobs from men to women laborers (ILO, 2017).

Figure 5: Relationship between women's labor force participation, education, maternity leave and social norms.



Source: ILO (2017), UNICEF (2017)

Gaps in education attainment, maternity leave policies and social norms play a role in women's participation in the workforce. As illustrated in Figure 5, a cross country comparison of gaps in women and men's lower secondary attainment shows that most African countries are below gender parity with a female to male ratio of less than one. In a majority of the countries with low levels of secondary attainment for girls relative to boys there are also high levels of female labor force participation. This may be an indication that girls who are not in school are joining the workforce without the requisite skills to engage in skilled jobs which contributes to their concentration in the informal and low productivity jobs. In relation to maternity leave policies, the evidence is even less conclusive. Most African countries have an average of 13 weeks of mandatory maternity leave. However, there is no clear link between the duration of maternity leave and women's labor force participation. This may be a result of the lower concentration of women in formal jobs where maternity leave policies are applicable.

Finally in relation to social norms such as early marriage, one would expect countries with a high prevalence of early marriage to also have higher rates of female labor force participation as education opportunities are curtailed. This is however, not a clear cut conclusion as there are some countries with low levels of customary law where female labor force participation is also low. This is an indication of the complexity of legal, social and customary factors that contribute to women's labor force participation as discussed in the previous section.

Beyond the gap in women's labor force participation, their over representation in low value jobs leads to overall losses in national productivity from lower output per worker for a significant portion of the working population. In order to quantify the negative impact of gender inequality in the labor force on national productivity we build on a model developed by Cuberes and Teigner (2012). The model shows the negative effects of gender inequality on labor productivity and labor force participation. It should be noted that this model assumes that men and women have exactly the same talent distribution, which may not be accurate for many countries due to education and skill gaps between men and women.

In the application of this model to Africa, the absence of gender disaggregated data on overall labor productivity for many countries is overcome using available gender disaggregated data on agricultural labor productivity. The rationale is that employment in agriculture represents a large proportion of employment in most African countries and factors affecting women's output in agriculture are broadly applicable to other economic sectors as well (such as lower education levels, less access to credit, etc.). As such it is reasonable to assume that the overall productivity gap between female and male workers could mirror the gender productivity gap in agriculture.

The disaggregated model of average productivity per worker (labor productivity) uses data from six countries – Ethiopia, Malawi, Niger, Tanzania, Uganda, and Nigeria – to determine the gender gaps in labor productivity and labor force participation as well as the potential gains from closing these gaps. Data on overall labor productivity (ILO, 2017) is disaggregated using gender gaps in agricultural sector labor productivity (O'Sullivan et al., 2014) as a proxy for gender gaps in overall labor productivity. For the purpose of this analysis, the assumption is that there are constant returns to labor – rather than diminishing returns – and also fixed returns to other factors of production such as capital. We also assume that women and men's labor can be perfectly substituted.

Applying the methodology outlined in Appendix A to the six countries in the dataset, generates the following estimates. If gaps in labor productivity are closed – with female and male workers producing the same output, average labor productivity could increase between 3% and 14%. On the other hand if gender labor productivity gaps were closed and we have the same level of participation in the workforce for both women and men, productivity could increase by an additional 1 – 4 percentage points per country – See Table 1. Due to the absence of gender disaggregated data on output per worker for more countries it was not possible to expand the data set to draw correlations between performance and structural barriers.

Table 1: Gains from closing gaps in labor productivity and labor force participation.

Country	Average output per worker (GDP constant 2011 international \$ in PPP)	Scenario 1: Current productivity and labor force participation gaps		Scenario 2: Only productivity gaps closed	Scenario 3: Both productivity and labor force participation gaps are closed	Potential change in output per worker (%)	
		Output per female worker	Output per male worker	Output per female worker	Output per both female and male workers	% change if only productivity gaps closed	% change if both labor and productivity gaps are closed
Ethiopia	\$3,589	\$3,094	\$4,018	\$4,018	\$4,055	11.9%	13.0%
Malawi	\$1,890	\$1,620	\$2,161	\$2,161	\$2,166*	14.3%	N/A
Niger	\$2,917	\$2,511	\$3,101	\$3,101	\$3,223	6.3%	10.5%
Nigeria	\$17,642	\$14,951	\$19,673	\$19,673	\$20,048	11.5%	13.6%
Tanzania	\$6,273	\$6,068	\$6,455	\$6,455	\$6,467	2.9%	3.1%
Uganda	\$4,088	\$3,795	\$4,363	\$4,363	\$4,372	6.7%	7.0%

Source: Author's calculations based on data from O'Sullivan et al. (2014), ILO STAT (ILO, 2017)

Note: * female/male labor force participation ratio is already > 1

3.2. Costing economic costs of inequity in paid and unpaid work

Adverse impacts on gender equality in the labor market arise from the disproportionate burden of care work on women in Africa that affects both inclusion in the labor force and productivity. Time poverty, indicated by limited time for rest and leisure after accounting for time spent on paid and unpaid work, threatens to render initiatives to increase women's participation in the labor force and in productive initiatives ineffective for most women. As the African Development Bank (2015: 14) warns, "Unless this time poverty is addressed, other measures to boost women's economic empowerment are unlikely to succeed." On average, if women in Africa spent the same amount of time on unpaid work as men, they would gain 1 hour 59 minutes each day. This ranges from 34 minutes in Uganda to 3 hours 30 minutes in Algeria (United Nations, 2015).

Building on the hypothesis that time saved by women from reducing care work can be used in market based care work this analysis explores the impact on GDP of more equitable sharing of such work among men and women, as well as productivity-enhancing inputs such as infrastructure and automation. As noted by the McKinsey Global Institute (2015), substituting non-market work with market-based work—for instance, by a caregiver being employed and earning a wage instead of engaging in unpaid care work—would increase GDP. This is because the current GDP measure does not assign a monetary value to the contribution of household production, but does give a value to market-based production.

This report examines potential wages that could be gained were women able to spend the same amount of time as men in unpaid care work. This means taking a baseline of men's unpaid care work, and reducing women's unpaid care work to that level and shifting the time 'saved' to paid labor. Due to the limited data available on hourly pay for African workers, by gender, across countries, data on mean nominal earnings are used in our analysis. The opportunity cost of women's unpaid work is calculated using data on mean nominal monthly earnings of female employees from the ILO. The selected countries also have data on paid and unpaid work – Rwanda, Ethiopia, Algeria, Uganda, Ghana and South Africa.

Using the model outlined in Annex B, individual country estimates show that women in these countries could earn an extra US\$ 40 to US\$ 640 dollars a year if they spent the same time as men on unpaid care work and were able to shift the time they spend on unpaid work to market based activities. On average, the wage opportunity cost per woman per day, is \$1.10 and the annual wage opportunity cost per woman of US\$ 286.97. If we consider the total number of women in the labor force in 2017 (ILO, 2017) the wage opportunity cost to women in Africa of the extra unpaid work they do, versus men, is US\$ 59.3 billion, or 3% of overall African GDP. See Table 2. However, further research and data is required to ascertain the impact of different distributions of care work on Africa's growth.

Table 2: Annual wage opportunity cost of extra unpaid care work

	Monthly wage (USD)	Hourly wage	Gender Gap in Unpaid Work	Cost of gender gap Wage opportunity cost per day (month)	Annual wage opportunity cost per woman
Algeria	95.33	0.55	3:30	\$1.93	503.50
Ethiopia	95.33	0.55	3:30	\$1.93	503.50
Ghana	95.33	0.55	3:30	\$1.93	503.50
Rwanda	95.33	0.55	3:30	\$1.93	503.50
South Africa	95.33	0.55	3:30	\$1.93	503.50
Uganda	95.33	0.55	3:30	\$1.93	503.50
Average	95.33	0.55	3:30	\$1.93	503.50
	Annual cost of unpaid care work per woman	Women in the labor force	Total cost of unpaid care work	Africa GDP	% of gdp
ALL AFRICA	286.97	204,572,000 (2017)	\$ 59.3 million	\$ 2.41 trillion (2017)	3%

Source: ILO Stat (2017), United Nations (2015) and World Bank (2018)

a. Monthly wage available for Ethiopia (\$44), South Africa (\$200) and Uganda (\$42) – the average used for the rest is 95.33; b. Hourly wage is total monthly wage was divided by 173.4, based on 40 hours per work week; This finding is based on the nominal GDP of Africa in USD Constant 2010 prices, of \$ 2.41 trillion (2017).

3.3. Costing gender gaps in equal rights to productive assets

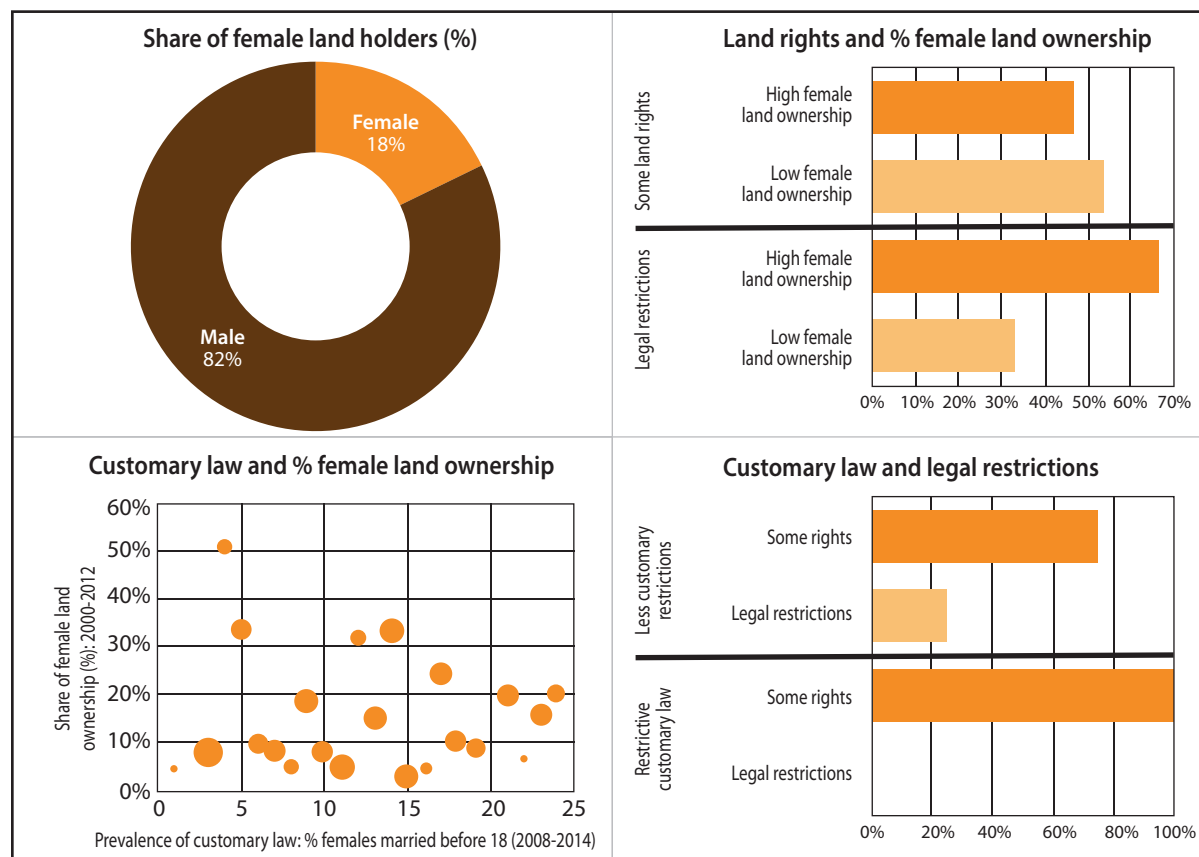
Access to productive assets in agriculture involves several dimensions: (a) ownership of land, livestock or other agricultural resources; (b) management of agricultural resources; (c) the use of financial services and other inputs for agriculture; (d) access to education, knowledge and skills related to agriculture; and (e) participation in agricultural labor activities. Women tend to be disadvantaged in regard to all these dimensions (FAO, 2011). However, more sex-disaggregated data is needed to adequately measure these gaps, particularly in terms of the use of inputs, information technology, agricultural machinery, irrigation and financial services. Statistics are needed on, for example, female users of agricultural credit, female-held agricultural holdings using irrigation, etc. For the purposes of this report, holdership of agricultural land is used as a proxy for control and ownership of land and agricultural assets.

Research to date has identified the importance of legal rights for securing land holdership for women, yet the evidence is that the impact of customary law is equally strong. While the expectation is that countries with the lowest ratio of female to male land holdership are those with high legal restriction to women's control of assets, that is not always the case. As shown in Figure 6, in general, countries with high legal barriers to more equal access to land do not necessarily have the lowest level of women's land ownership as 70% of the countries with high legal restrictions to land still have relatively higher female land ownership. However, in countries with some legal restrictions to land – a majority of African countries – there are slightly more countries with low female land ownership than those with high female land ownership. On the other hand, the relationship between restrictive customary laws and female land ownership is stronger. In this case prevalence of early marriage which has a

negative impact of women’s agency and control over resources is used as a proxy for the application of customary law. It is clear that countries with the higher prevalence of customary laws, there are lower levels of land ownership by women. Yet it is also interesting to note that those countries with restrictive customary laws that disadvantage women also have some rights to land and countries with less restrictive customary laws have more stringent legal restrictions to land rights.

Two preliminary conclusions can be drawn from this disparity between legal equality and low levels of equality in land holdership. First, that there exists an implementation gap between existing legislation which provides land rights and real access to land which results in low female ownership even in cases where restrictions are low. Second, there are other structural barriers to women’s control of land including parallel systems of customary law as well as gender norms and stereotyping. Women’s ownership of productive assets is critical for national productivity and economic growth because women’s weaker property rights and tenure security reduces their “incentives to invest in their land” (GENDERNET, 2012: 13). The World Bank (2014: 36) points to empirical evidence from diverse settings – Ethiopia, Rwanda and Ghana – which establishes “strong links between security of land tenure and the level of investment in that land, such as tree planting, soil conservation, leaving land fallow and the use of hired labor.” Low productivity has particularly detrimental effects on the welfare of families, communities and entire countries (ibid: 36). Therefore, reducing disparities in agriculture assets by facilitating women’s access to land, inputs and technology is key to raising household, community and national well-being.

Figure 6: Relationship between women’s legal rights and control of asset



Source: OECD (2017), FAO (2016), UNICEF (2016)

3.4. Costing the gaps in the productivity of women's assets

Women's unequal access to productive assets such as land is compounded by a gender gap in the productivity of women's land based enterprises such as agriculture. This productivity gap in agricultural land owned by women is the result of lower access to other productive assets such as agricultural inputs, technology, education and financial services. Ultimately this productivity gap results in lower national agricultural output. As per the World Bank (O'Sullivan et al., 2014), women farmers are consistently found to be less productive than male farmers. The gender gap in agricultural productivity – measured by the value of agricultural produce per unit of cultivated land – ranges from 4% to 25%, depending on the country and the crop.

For the three African countries for which data was available on agricultural land holding by gender, we analyze the gap between male and female productivity per hectare to infer the total additional yield and production that would be obtained if women's holdings were as productive as male controlled holdings using the methodology indicated in Annex C. Using data on the share of land controlled by women and the gap in productivity between women and men's agricultural land, this model estimates the additional yield that would be obtained if women's land was as productive as men's land. This is expressed as the yield gap between women and men's land as well as the percentage increase on total yield as summarized in table 3.

Table 3: Gender gaps between male and female agricultural productivity

	ETHIOPIA	MALAWI	NIGERIA
Share of land controlled by women	19.2%	32.10%	10%
Ratio of productivity of women's land relative to men's	77%	75%	76%
Yield gap (percentage points)	23	25	24
% Increase in yield if women and men productivity is equal	4.42%	8.03%	2.4%

Source: Author's calculation based on O'Sullivan et al., 2014 and FAO, 2017

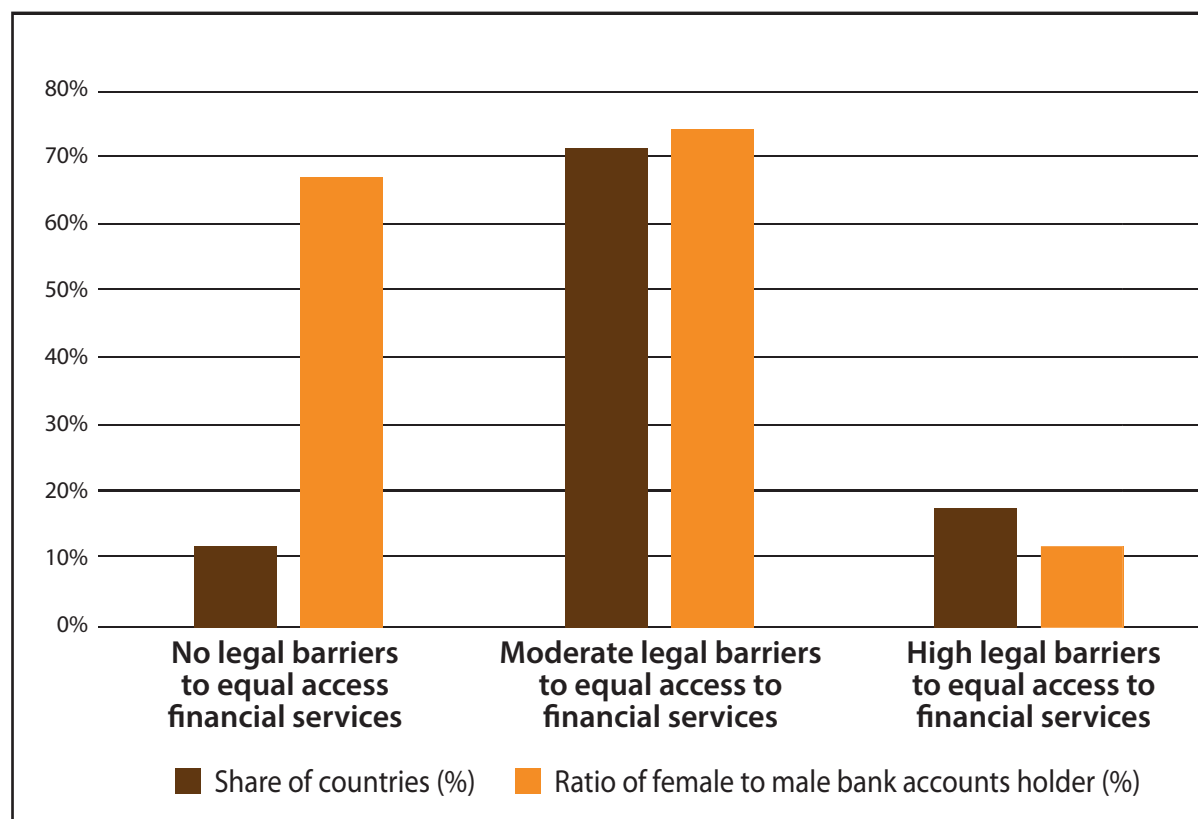
Similar country level analysis of the cost of the gender gap in agricultural productivity in Malawi, Tanzania and Uganda was carried out by UNWOMEN, UNDP and IFAD (UN Women et, 2015) by profiling female farmers and analyzing what the size of this yield gap means relative to GDP and poverty reduction. The estimated monetary value of the gender gap in agricultural productivity expressed as a yield gap amounts to US\$ 100 million in Malawi, US\$ 105 million in Tanzania and US\$ 67 million in Uganda each year (ibid: 3). This study demonstrated that closing the gender productivity gap would result in an annual crop output of 2.1% in Tanzania, 2.8% in Uganda and 7.3% in Malawi. These potential economic gains from reducing the gender gap translate into significant poverty reduction and improved nutrition with the potential to lift 88,000 people in Tanzania out of poverty and reducing the incidence of undernourishment by 0.7%.

3.5. Costing gender gaps in financial inclusion

On average, in 2017, there are more male bank account holders than women account holders, with women making up 42% of all bank account holders compared to 58% for men in the sample. The prevailing literature ties this financial exclusion to legal inequality in access to financial services. However, data for 35 countries reveals that there is no significant relationship between legal equality in access to financial services and the ratio of female to male account holdership as a proxy for the level of financial inclusion – See Figure 7. For instance in countries where the law guarantees the same rights to access formal financial services (e.g. credit, bank account and bank loans) to both women and men there is a lower level of financial inclusion than countries with moderate legal barriers. In the latter, the law guarantees the same rights to access formal financial services to both women and men, but there are some customary, traditional or religious practices that discriminate against women. There are also relatively high levels of financial inclusion in countries where the law does not guarantee the same rights to access formal

financial services to women and men, or women have no legal rights to access financial services. The conclusion is that that focusing on legal reforms in access to financial services alone is unlikely to translate to higher financial inclusion. There should be a corresponding focus on closing gaps in implementation and addressing multi-dimensional barriers to address this gap in women’s access to financial services.

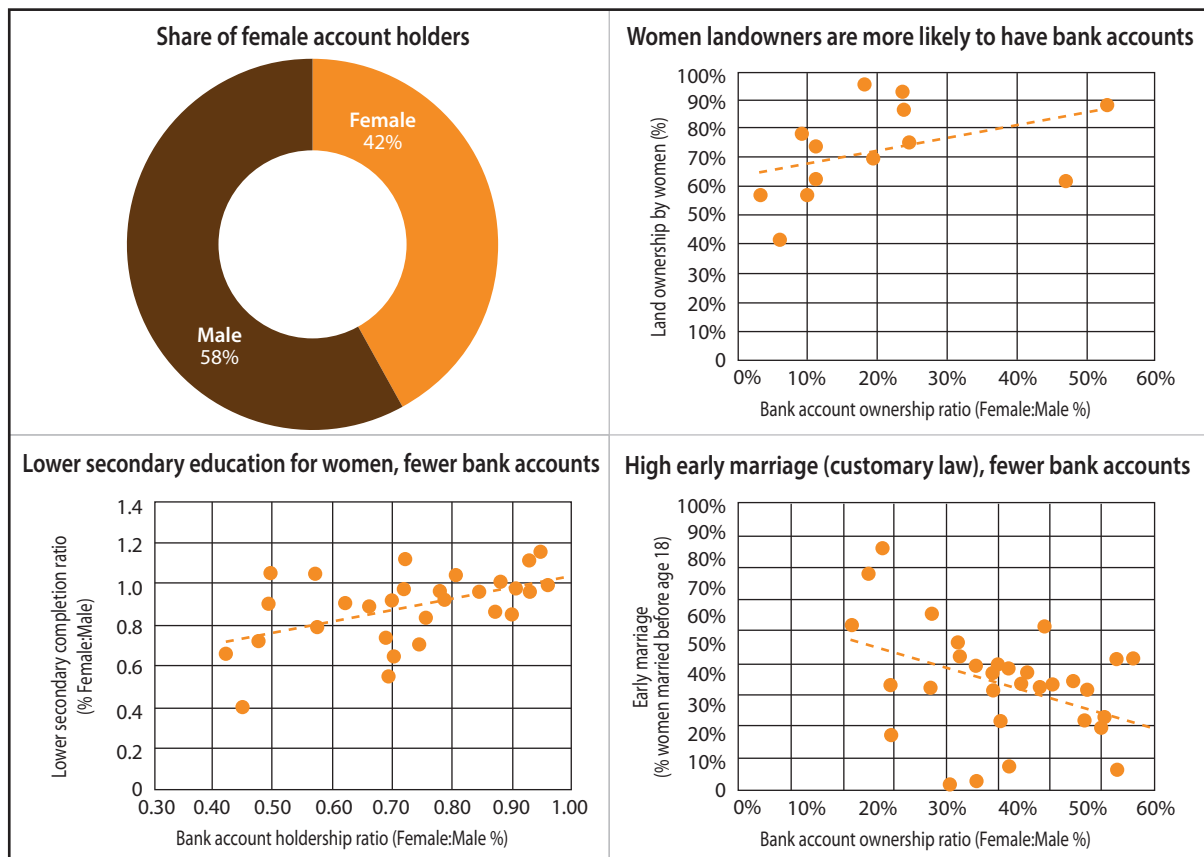
Figure 7: Female account ownership by level of legal barriers to equal access, 2017



Source: OECD’s SIGI database, 2014 (OECD, 2017); World Bank, Global Financial Inclusion, Database (2017)

There is a much stronger correlation between financial inclusion and ownership of land, education and discriminatory social institutions such as early marriage. As the ratio of female to male holdership of agricultural land increases, so too does the ratio of financial inclusion. This may indicate that land acts as a collateral for accessing financial services such as credit. In addition, countries with higher secondary education rates correspond to countries that have higher rates of financial inclusion for women. This may be reflection of the established linkage between education and likelihood of having a bank account. On the other hand, the presence of discriminatory social institutions such as early marriage – which could be linked to lower educational attainment – seems to hamper women’s financial inclusion as countries with a high prevalence of early marriage have lower levels of bank account ownership in general. (See Figure 8)

Figure 8: Explaining female-to-male ratios of distribution account holdership



Source: World Bank, Global Financial Inclusion, Database (2017); UNICEF (2016); FAO (2017); World Bank (2017)

A number of indicators have been established for costing the impact of gender gaps in labor and access to productive assets:

 <p>Labor</p>	 <p>Land</p>	 <p>Financial Inclusion</p>
<ul style="list-style-type: none"> • labor participation gaps • labor productivity gaps • share of informal employment 	<ul style="list-style-type: none"> • land ownership • legal land rights • discriminatory social institutions 	<ul style="list-style-type: none"> • bank account ownership • legal barriers to financial services • customary law • education attainment

4. Benefits of closing gender gaps in labor and assets on achievement of Sustainable Development Goals

Thus far, the report has identified and quantified the economic costs of gender gaps in labor and access to productive assets including financial services. This section begins by exploring the benefits of closing gaps in women's labor force participation, employment, paid work on economic output. These economic benefits are disaggregated by the level of human development. The benefits of closing gender gaps in labor participation, productivity and access to assets are then related to key indicators on labor participation, assets and productivity that are already included in the monitoring framework for the achievement of the Sustainable Development Goals (SDGs).

4.1 Closing gender gaps in wages and labor force participation to achieve inclusive and sustainable employment (SDG 8)

A recent study has explored the impact upon economic growth of gender gaps by building a supply-side model that estimates the economic impact of closing the gender gap in labor markets in 95 countries (McKinsey Global Institute 2015). It is estimated that globally, US\$ 12 trillion could be added to GDP by 2025 by advancing women's equality. We use this model to create scenarios for Africa to incorporate the variables discussed throughout this report in order to present the economic impact of closing the gender gap in labor markets in an African context. This model articulated in Appendix D, calculates the gender disaggregated impact on GDP of closing gaps in labor force participation, paid work employment and productivity using five variables: working-age population; labor-force participation rate; employment rate; full-time equivalent rate; and labor productivity per full-time equivalent employed. These gaps are explored in the context of countries at low, middle and high levels of human development. The results from the simulation exercise are presented in Table 4.

Closing gender gaps in women's labor force participation, paid work, employment and productivity would yield increases in GDP from 3% to 16% with higher gains for high human development countries who have the largest gender gaps in terms of labor force participation for women and men. As illustrated in Figure 9, there are differences across categories with low human development countries making the largest gains in terms of closing gaps related to increasing paid work and improving labor productivity. On the other hand, middle and high income countries make the most gains in closing gaps related to labor force participation and employment rates.

There are extremely high projected figures in scenario 5 where all gaps are closed sequentially rather than simultaneously. In this scenario, first the number of women in the labor force is increased, followed by an increase in their chance of being employed to the same level as men. These two groups of additional women in the workforce – those currently employed and those brought in to ensure that women can perform the same number of paid hours of work as men – are then enabled to increase their productivity to same levels as men.

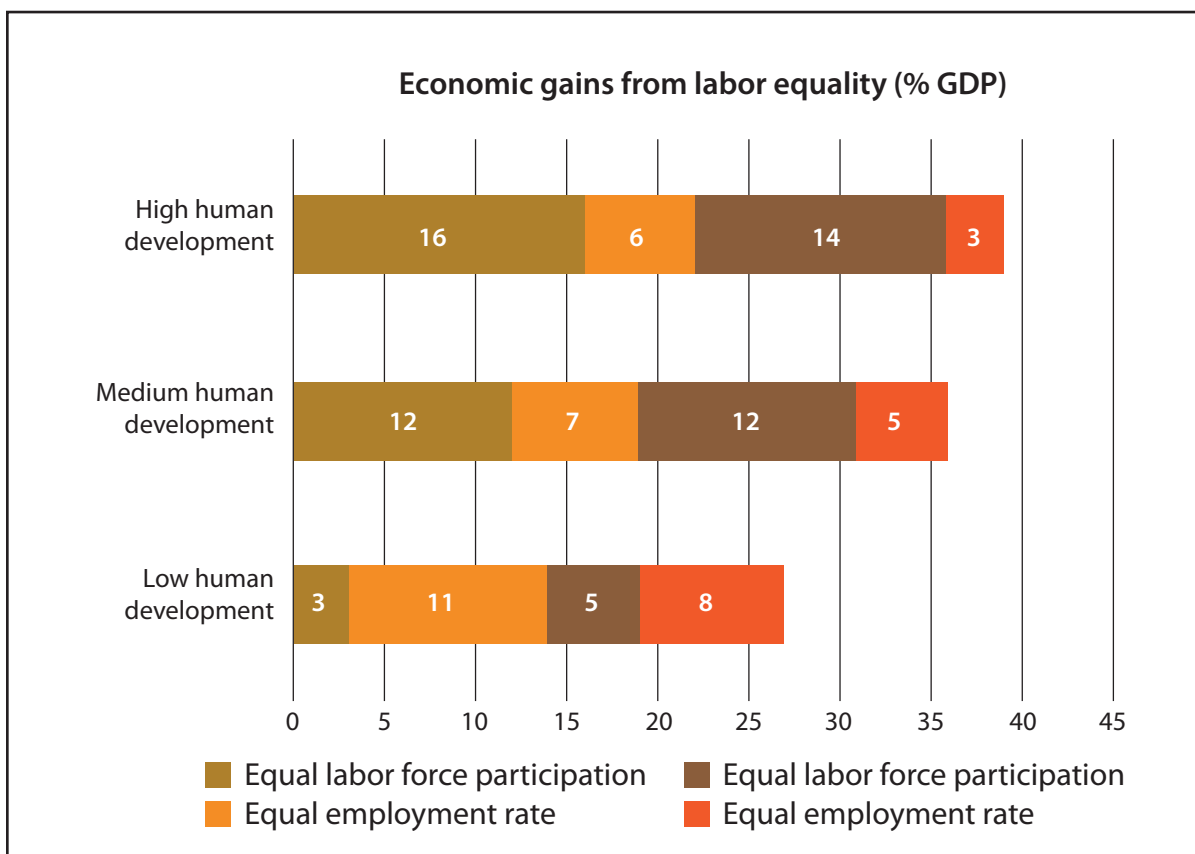
This ideal scenario would yield exponentially high increases, a hypothetical result which may be impossible to fully attain in practice, but which illustrates the immense gender gap in the current African labor market – and the exponential dividends of seeking to fully bridge the gender gap. This huge amount is what could be created, hypothetically, if half of Africa's population were fully allowed to reach their economic potential and were able to be active in the economy. Perhaps counter-intuitively, it is the higher HDI economies which stand to make the biggest gains overall, mainly due to the large disparity in female labor force participation in North Africa which has the highest proportion of high human development countries. As Goldin has argued (1995), the female labor force function is U-shaped. In several high human development countries such as Egypt, Tunisia, Mauritius and Libya, high HDI values exist side-by-side with discriminatory legislation and high gender inequality in income. In these countries the negative effect of the gender gap in income is overcome by more equal distribution in health and education outcomes between women and men (UNDP, 2016: 27).

Table 4: Economic impact of closing gaps in labor participation, paid work, employment and productivity

Scenarios	Increase in GDP (%)	Level of human development	Assumptions
1. Closing the gender gap in labor participation Women's labor force participation rate is equal to men	3	Low	Only no. of women increased, productivity, hours worked, employment rates remain constant
	12	Medium	
	16	High	
2. Close the gender gap in paid hours of work Women who are currently in the labor force work the same number of paid hours as men	11	Low	Only number of paid hours worked by women is increased
	7	Medium	
	6	High	
3. Close the gender gap in employment rates Women are employed at the same rate as men	5	Low	Only rate of employment of women is increased
	12	Medium	
	14	High	
4. Close the gender productivity gap Women are as economically productive as men	8	Low	Increased output per worker of 6-11%
	5	Medium	
	3	High	
5. Close all labor market gaps Gaps in participation, paid work, employment and productivity are closed	36	Low	
	72	Medium	
	101	High	

Source: Author's calculation based on O'Sullivan et al., 2014 and FAO, 2017.

Figure 9: Potential economic gains from increased gender equality



Source: Author's calculation based on data from ILO (2017) and World Bank (2017)

4.2 Closing the gap in labor and access to productive assets for gender equality (SDG5), food security (SDG 2), and inclusive and sustainable employment (SDG 8)

Based on the foregoing qualitative and quantitative analysis, it can be argued that: as a result of the legal discrimination, disproportionate care burden and gender norms and stereotypes, women are less likely than men to participate in the labor force. Gender norms and stereotypes – reflected in gaps in education attainment, horizontal and vertical discrimination in the labor market – means that women are less likely to be employed and more likely to be in informal work. Finally, as a result of the key issues outlined above – legal and customary restrictions to accessing land, lack of access to inputs, financing and technology – they are likely to be less productive than male workers and land holders.

These gender gaps are associated with specific indicators for monitoring progress on SDGs related to inclusive and sustainable growth, full and productive employment and decent work for all as illustrated in Table 5. Linking this analysis to the achievement of specific sustainable development goals provides for more targeted policy recommendations and actions. For instance, addressing women’s disproportionate care burden and ensuring equal access to ownership and control over land contributes to two specific indicators under SDG 5 on achieving gender equality and empowering women and girls. In addition, increasing the productivity of women’s assets contributes to the achievement of a key indicator under SDG 2 on ending hunger, achieving food security and improved nutrition and promoting sustainable agriculture. Finally, closing gender gaps in labor contributes to the achievement of a key indicator under SDG 8 on sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Table 5: Benefits of closing gender gaps on achievement of SDGs 2, 5 and 8.

Goal and Target	Indicator	Benefits of closing gender gap
Sustainable Development Goal 2, End hunger, achieve food security and improved nutrition and promote sustainable agriculture		
2.3 By 2030, double agricultural productivity and incomes of small-scale food producers, in particular women, indigenous people, family farmers, pastoralist and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.	2.3.1 Volume of production per labor unit by class of farming/pastoral/forestry enterprise size.	The gender gap in agricultural productivity (women farmers are less productive) is 23% to 25% in terms of the value of agricultural produce per unit of cultivated land in Ethiopia, Malawi and Nigeria. Annual crop output would increase by 2.4% to 8% if women and male farmers were equally productive in Ethiopia, Malawi, Nigeria, Tanzania, Uganda.
Sustainable Development Goal 5, Achieve gender equality and empower all women and girls		
5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.	5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land by sex. 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control.	On average just 19% of agricultural land is managed by women (24 countries) ranging from 3% in Mali to 51% in Cabo Verde. Only one country – Mauritius – has the same rights to own and or access agricultural land; in 41 countries women have equal legal rights with men to own and access land, but discriminatory practices restrict women's access to and ownership of land in practice, and in 5 countries women have no/few/unequal legal rights to own or administer land or their access is severely restricted by discriminatory practices.
5.4 Recognize value of unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and family as nationally appropriate.	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age, and location.	Women in 7 African countries spend 1 hour 59 minutes more than men each day on unpaid work ² . While men spent 80% of their time in paid work, women only spent 55% on paid work. The wage opportunity cost per woman per day, is US\$1.10 and the annual wage opportunity cost per woman of US\$ 286.97 and the wage opportunity cost to women in Africa of the extra unpaid work they do, versus men, is US\$ 59.3 billion, or 2% of overall African GDP.
Sustainable Development Goal 8, Promote sustained, inclusive, sustainable economic growth, full and productive employment and decent work for all		
8.5 By 2030, achieve full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value.	8.3.1 Proportion of informal employment in non-agriculture employment, by sex. 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities.	Survey data (2010-2016) suggests that average share of non-agricultural employment outside formal sector in 12 countries in SSA is about 67% of all employment (ILOSTAT, 2017). If women's labor force participation rate were equivalent to men's (204.57 million compared to 274.65 million in 2017), an additional 74.38 million women would enter the labor force resulting in an increase in economic output of \$962 billion – based on average annual output per worker in Africa estimated at \$12,933 (ILO, 2017). If gaps in labor productivity are closed – with female and male workers producing the same output, average labor productivity could increase between 3% and 14%. An additional 1-4% per country with the same level of participation in the workforce for both women and men.

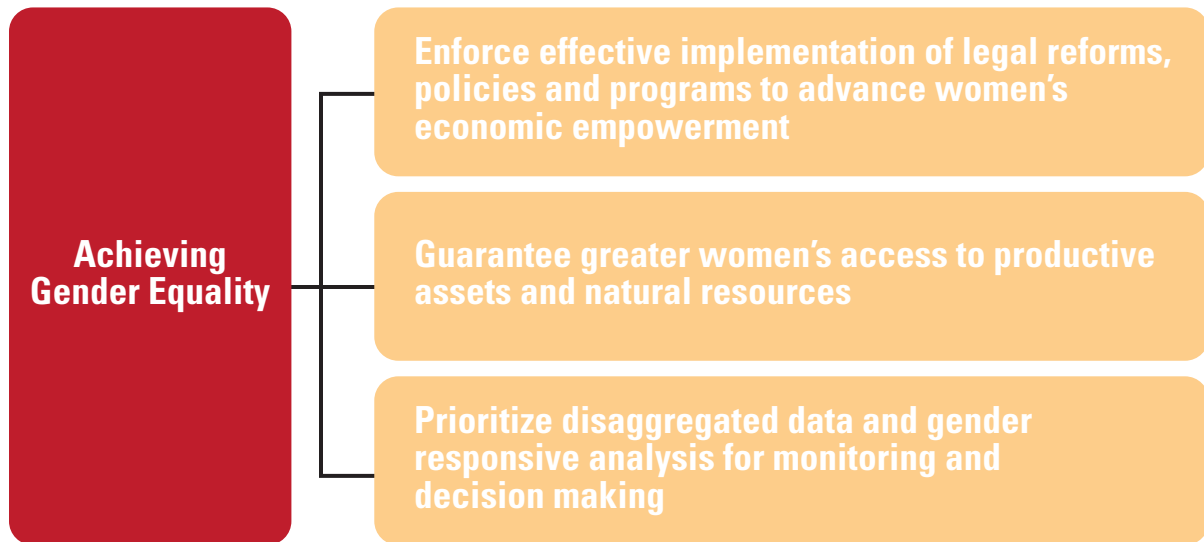
² Evidence from Algeria, Ethiopia, Ghana, Reunion, Rwanda, South Africa, Uganda.

5. Key findings

<p>Gender gaps in labor</p>	<ul style="list-style-type: none"> • African women’s labour force participation is higher than other regions – 65% in sub-Saharan Africa, 56% in North America, 51% in Europe, 46% in Asia and the Pacific • However, most are engaged in informal, low paid and low-productive work. On average, female employment outside the formal non-agricultural sector is 76% compared to 59% for men. • Women could gain 1:59 hours per day if unpaid work is equalised which translates to a wage opportunity cost from extra unpaid work of USD 59.3 billion, or 3% of overall African GDP. • If the 74.38 million women currently excluded from the workforce were enabled to participate as productive members of the economy, this could hypothetically result in an overall increase in economic output of \$962 billion
<p>Gender gaps in asset ownership</p>	<ul style="list-style-type: none"> • Women control, on average, 19% of agricultural plots, versus men’s 81%, all African countries, except Mauritius, have restricted access for women to land, property other than land and to financial services from weak and poorly implemented legal frameworks and customary laws. • An average of 2.8% in additional agricultural output could be generated if plots of land controlled by women were as productive as those held by men. Based on current agricultural output figures for the region, this equates to a value of US\$8.4 billion overall. • Legal equality in itself is not sufficient to guarantee gender equality in land holdership. This suggests that there exists an implementation gap
<p>Financial exclusion</p>	<ul style="list-style-type: none"> • There is no significant correlation between legal equality in access to financial services and female account holdership. So, legal reforms in access to financial services can only translate to higher financial inclusion if corresponding implementation gaps and multi-dimensional barriers to women’s access to financial services are addressed. • On the other hand, there is strong correlation between financial inclusion and ownership of land, education and the discriminatory social institutions such as early marriage which points to the need for the application of integrated data, tools and gender responsive analysis to overcome key barriers.

6. Recommendations

The foregoing analysis presents five overarching recommendations to implement the Action Agenda from the 2016 AfHDR, towards more effective policies and programs to advance women's economic empowerment and achieve gender equality.



<p>Effective implementation of legal, regulatory and policy frameworks</p> <p><i>Use targeted policies to overcome legal discrimination, gender norms and stereotypes, and women's unequal care burden</i></p>	<p>Policy measures to address legal discrimination include:</p> <ul style="list-style-type: none"> Enforce the implementation of existing gender equality legislation, through mechanisms such as the Maputo Protocol and the The Convention on the Elimination of Discrimination against Women and reinforcing gender equality architecture in governments and regional bodies End parallel legal systems which recognize customary law alongside statutory law and undermine advancements towards greater gender equality. <p>Policy measures to address inequitable gender norms and gender stereotyping include:</p> <ul style="list-style-type: none"> Invest in women and girls' literacy, education and skills to counteract the influence of religious and customary leaders with discriminatory attitudes to gender equality Work with communities and traditional leaders to deconstruct negative social norms that block implementation of legal reforms <p>Policy measures to address women's unequal care burden include:</p> <ul style="list-style-type: none"> Provide state-funded childcare and elder care and encourage private sector employers to provide on-site childcare Invest in infrastructure and labor-saving initiatives that reduce the burden of care work including improvements in access to water and energy. Campaign for and incentivize more equitable distribution and male involvement in unpaid care work
---	---

Prioritize disaggregated data and gender responsive analysis for monitoring, decision making

Review data gaps and conduct further research

A key finding from the report is the lack of systematic data on a number of aspects of gender inequality. In order to build on and refine the analysis of this report, the following further data would be required, most notably:

- Data on unpaid hours worked that differentiates between unpaid care work and unpaid contributing family worker labor. There is no data on what proportion of unpaid work is care work, and what is contributing family labor. In order to better quantify gender gaps in social care and reproduction, it would be necessary to obtain more detailed data around the composition of unpaid work in Africa.
- Data on hourly/monthly pay by gender by sector and by country. In the dimension of the labor market, current data on wages and earnings are highly limited. No data is available for African countries on pay by gender.
- Data on number of agricultural plots using inputs such as fertilizer, enhanced seeds, etc. by gender of holder of plot.
- Data on agricultural productivity gender gap for all African countries. At present, data on the productivity gaps between female-controlled and male-controlled agricultural plots is limited to that produced by a World Bank report, *Leveling the field: Improving Opportunities for Women Farmers in Africa*, which profiles six countries: Ethiopia, Malawi, Niger, Nigeria, Tanzania and Uganda. While these countries make up over 40% of the population of sub-Saharan Africa, in order to obtain a more representative picture of gender gaps in agricultural productivity across Africa, profiles of every African country would be desirable.
- Data on productivity/labor output by gender. In order to expand this model to include this, productivity data per gender is required per sector. This could then be weighted to the proportion of people working in each sector by gender.
- Data on the control of land by gender obtained from FAO is also limited, and does not include Niger, for example, cutting the number of countries able to be used in this analysis to five. Further, data from FAO on gross agricultural production was also not available for all countries, reducing the countries used in this analysis to three.

In addition to the gaps in quantitative data, two key themes merit further qualitative and quantitative research:

- First, systematic intersectional analysis of the political economy of gender inequality in Africa is scarce. Throughout this report, diversity between women – across a range of social characteristics – has been highlighted. Women in Africa cannot be considered a homogeneous group. It is vital, therefore, to consider the intersections of their identities – nationality, ethnicity, social class, type of occupation, level of education, level of wealth, marital status, parenthood, age, religious beliefs, etc. These have a bearing on the inequalities they experience, and the human development outcomes they attain. Moreover, the quality of statistical data could be improved by the explicit capturing of further information beyond the social category of “gender” as a homogeneous group.
- Second, little attention has been paid to date to the role of men and masculinities in exploring the political economy of gender inequality in Africa. While a rich tradition of research on African masculinities exists, this is not substantively integrated into current analyses aimed at policy-makers.

References

- Addati, L., Cassirer, N. and Gilchrist, K. 2014. *Maternity and paternity at work: Law and practice across the world*. Geneva: ILO. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_242615.pdf
- AFDB (African Development Bank). 2013. *Financial Inclusion in Africa*. Abidjan: African Development Bank. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Financial_Inclusion_in_Africa.pdf
- AFDB (African Development Bank). 2014. *Investing in Gender Equality for Africa's Transformation*. Abidjan: African Development Bank. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/2014-2018_-_Bank_Group_Gender_Strategy.pdf
- AFDB (African Development Bank). 2015. *Empowering African Women: An Agenda for Action*. Africa Gender Equality Index. Abidjan: African Development Bank. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Gender_Equality_Index_2015-EN.pdf
- Afrobarometer (2017) "In Malawi, gender gaps persist despite popular support for equal opportunity", Afrobarometer Dispatch No. 152 | Happy Mickson Kayuni <http://afrobarometer.org/press/malawi-gender-gaps-persist-despite-popular-support-equal-opportunity>
- Afrobarometer (2017) "Kenyans see gains in gender equality, but support for women's empowerment still uneven", Afrobarometer 8 March 2017, <http://afrobarometer.org/press/kenyans-see-gains-gender-equality-support-womens-empowerment-still-uneven-afrobarometer-survey>
- Ayanwale, A., Adekunle, A., Fatunbi, A., Olarinde, L. and Adekunle, C. (2017). Membership to innovation platforms and gender in ownership of productive assets in the savannas of West Africa. *African Crop Science Journal*, 25(1), 59. <https://www.ajol.info/index.php/acsj/article/view/158172>
- Arbache, J. S., Kolev, A. and Filipiak, E. (Eds.) 2010. *Gender Disparities in Africa's Labor Market*. Washington, DC: Agence Française de Développement/World Bank. <http://www.ffem.net/webdav/site/afd/shared/PUBLICATIONS/RECHERCHE/Scientifiques/Co-editions/Gender-disparities-labour-market.pdf>
- Asuagbor, L. 2016. *Status of Implementation of the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa*. Report presented at the 60th Meeting of the Commission on the Status of Women (18 March 2016, New York). Banjul: African Union. <http://www.peaceau.org/uploads/special-rapporteur-on-rights-of-women-in-africa-presentation-for-csw-implementation.pdf>
- Bibler, S. and E. Zuckerman. 2013. *The Care Connection: The World Bank and Women's Unpaid Care Work in Select Sub-Saharan African Countries*. Helsinki: UNU-WIDER. <http://www.genderaction.org/carereport.pdf>
- Blackden, C. M. and Wodon, Q. 2006. Gender, Time Use, and Poverty: Introduction. In C. M. Blackden and Q. Wodon (Eds.) *Gender, Time Use, and Poverty in Sub-Saharan Africa*. World Bank Working Paper No. 73 (pp. 1-12). Washington, DC: World Bank. http://siteresources.worldbank.org/INTAFRREGTOPGENDER/Resources/gender_time_use_pov.pdf
- Blofield, M. and Martinez Franzoni, J. 2015. Maternalism, Co-responsibility, and Social Equity: A Typology of Work-Family Policies. *Social Politics*, 22(1): 38-59. <https://academic.oup.com/sp/article/22/1/38/1734581>
- Budlender, D. 2008. *The Statistical Evidence on Care and Non-Care Work across Six Countries*. Geneva: United Nations Research Institute for Social Development (UNRISD). [http://www.unrisd.org/80256B3C005BCCF9/\(httpAuxPages\)/F9FEC4EA774573E7C1257560003A96B2/\\$file/BudlenderREV.pdf](http://www.unrisd.org/80256B3C005BCCF9/(httpAuxPages)/F9FEC4EA774573E7C1257560003A96B2/$file/BudlenderREV.pdf)
- Bustelo, M. and Ferguson, L. 2011. *Social protection, reconciliation or co-responsibility? An analysis of contemporary policies on the care economy and unpaid labour*. Paper presented at the 2nd European Conference on Politics and Gender (13-15 January, 2011, Budapest). Madrid: Complutense University of Madrid (UCM).
- CGAP (Consultative Group to Assist the Poor). 2008. *CGAP-MIX Africa Microfinance Analysis and Benchmarking Report*. Washington, DC: CGAP. <http://www.cgap.org/publications/cgap-mix-africa-microfinance-analysis-and-benchmarking-report>
- Chant, S. and Pedwell, C. 2008. *Women, gender and the informal economy: An assessment of ILO research and suggested ways forward*. Geneva: ILO. <http://www.cpahq.org/cpahq/cpadocs/wcms091228.pdf>
- Cheston, S. and Kuhn, L. 2002. *Empowering Women through Microfinance*. New York: UNIFEM. http://www.genfinance.info/documents/Gender%20Impact/ChestonandKuhn_2002.pdf
- Cuberes, D. and Teigner, M. 2012. *Gender Gaps in the Labour Market and Aggregate Productivity*. Sheffield Economic Research Paper, 2012017. Sheffield: Sheffield University. https://www.sheffield.ac.uk/polopoly_fs/1.1866091/file/serps_2012017.pdf
- Daniels, N. 2015. *Women's Financial Inclusion in Africa: Barriers, Costs and Opportunities*. Rosebank, Johannesburg: Open Society Initiative for South Africa. <http://www.osisa.org/openspace/regional/women's-financial-inclusion-africa-barriers-costs-and-opportunities>
- Deere, C. D. and Doss, C. R. 2006. *Gender and the Distribution of Wealth in Developing Countries*. Research Paper No. 2006/115. Washington, DC: UNU-WIDER. <http://ucanr.edu/blogs/food2025/blogfiles/14584.pdf>
- De Henau, J., Himmelweit, S., Lapniewska, Z. and Perrons, D. 2016. *Investing in the Care Economy: A gender analysis of employment stimulus in seven OECD countries*. Brussels: International Trade Union Confederation. https://www.ituc-csi.org/IMG/pdf/care_economy_en.pdf

- DFID (Department for International Development). 2010. *The Turning Point on Poverty, Background paper on gender*. London: DFID. <http://www.oecd.org/dac/gender-development/45249900.pdf>
- Elborgh-Woytek, K., Newiak, M., Kochhar, K., Fabrizio, S., Kpodar, K., Wingender, P., Clements, B. and Schwartz, G. (Eds.) 2013. *Women, Work, and the Economy: Macroeconomic Gains from Gender Equality*. IMF Staff Discussion Note, SDN/13/10. Washington, DC: IMF. <http://www.imf.org/external/pubs/ft/sdn/2013/sdn1310.pdf>
- FAO (Food and Agriculture Organization of the United Nations). 2010. *Gender and Land Rights: Understanding Complexities; Adjusting Policies*. Policy Brief. Rome: FAO. <http://www.fao.org/docrep/012/a1059e/a1059e00.pdf>
- FAO (Food and Agriculture Organization of the United Nations). 2011. *The State of Food and Agriculture, 2010–2011: Women in Agriculture, Closing the Gender Gap for Development*. Geneva: FAO. <http://www.fao.org/docrep/013/i2050e/i2050e.pdf>
- FAO (Food and Agriculture Organization of the United Nations). 2017. *Gender and Land Rights Database*. <http://www.fao.org/gender-landrights-database/en/>
- Finnegan, G. 2015. *Discussion Paper: Strategies for Women's Financial Inclusion in the Commonwealth*. London: Commonwealth Secretariat. <http://thecommonwealth.org/sites/default/files/inline/Women%27s%20Financial%20Inclusion%20Discussion%20Paper%20FINAL.pdf>
- GENDERNET (OECD DAC Network on Gender Equality). 2012. *Women's Economic Empowerment*. Paris: OECD. <https://www.oecd.org/dac/povertyreduction/50157530.pdf>
- Goldin, C. 1995. The U-Shaped Female Labor Force Function in Economic Development and Economic History. In T. P. Schultz (Ed.) *Investment in Women's Human Capital and Economic Development* (pp. 61-90). Chicago: University of Chicago Press.
- Goldman Sachs Global Markets Institute. 2014. *Giving credit where it is due: How closing the gap for women-owned SMEs can drive global growth*. New York: Goldman Sachs. <http://www.goldmansachs.com/our-thinking/investing-in-women/gmi-report-pdf.pdf>
- Hallward-Driemeier, M. and Hasan, T. 2013. *Empowering Women: Legal Rights and Economic Opportunities in Africa*. Africa Development Forum series. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/854741468007857028/pdf/730710PUB0EPI001200pub0date01004012.pdf>
- IFC (International Finance Corporation). 2013. *Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises*. Washington, DC: IFC. <https://www.ifc.org/wps/wcm/connect/4d6e6400416896c09494b79e78015671/Closing+the+Credit+Gap+Report-FinalLatest.pdf?MOD=AJPERES>
- IFPRI (International Food Policy Research Institute). 2012. *Women's Empowerment in Agriculture Index*. Washington, DC: IFPRI. <http://www.ifpri.org/publication/womens-empowerment-agriculture-index>
- IGR (Institute for Governance Reform). 2016. *Interactive Study for Africa Human Development Report, Sierra Leone*. Freetown and New York: Institute for Governance Reform and UNDP Regional Bureau for Africa.
- ILO (International Labour Organization). 1998. More than 120 Nations Provide Paid Maternity Leave. *ILO News Press Release*, 16 February 1998. http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_008009/lang--en/index.htm
- ILO (International Labour Organization). 2007. *Small change, Big changes: Women and Microfinance*. Geneva: ILO. http://www.ilo.org/wcmsp5/groups/public/@dgreports/@gender/documents/meetingdocument/wcms_091581.pdf
- ILO (International Labour Organization). 2010. *Maternity at Work: A Review of National Legislation*. Geneva: ILO. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_124442.pdf
- ILO (International Labour Organization). 2013. *International Global Trends 2013: Recovering from a Second Jobs Dip*. Geneva: ILO. http://ilo.org/global/research/global-reports/global-employment-trends/2013/WCMS_202326/lang--en/index.htm
- ILO (International Labour Organization). 2014. *Maternity and Paternity at Work: Law and Practice across the World*. Geneva: ILO. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_242615.pdf
- ILO (International Labour Organization). 2016. Addressing gender gaps in Africa's labour market. *ILO News Press Release*, 7 March 2016. Addis Ababa: ILO News. http://www.ilo.org/addisababa/media-centre/pr/WCMS_458102/lang--es/index.htm
- ILO (International Labour Organization). 2018. *ILOSTAT Database*. <http://www.ilo.org/ilostat/>
- Iskenderian, M. E. 2015. *Why financial inclusion for women is critical for shared prosperity*. Geneva: World Economic Forum. <https://www.weforum.org/agenda/2015/04/why-financial-inclusion-for-women-is-critical-for-shared-prosperity/>
- ILO (International Labour Organization) and UNDP (United Nations Development Programme). 2009. *Work and Family: Towards New Forms of Reconciliation with Social Co-responsibility*, Santiago, Chile: ILO and UNDP. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_travail_pub_55.pdf
- Jurist. 2016. Gambia and Tanzania outlaw child marriage: Saturday, July 9, 2016: Jurist, Legal News and Research Services, Inc., 2013. <http://www.jurist.org/paperchase/2016/07/gambia-and-tanzania-outlaw-child-marriage-practices.php>

- Kabeer, N. 2012. *Women's Economic Empowerment and Inclusive Growth: Labour Markets and Enterprise Development*. London and Ottawa: Department for International Development (DFID) and the International Development Research Centre (IDRC). <https://www.idrc.ca/sites/default/files/sp/Documents%20EN/NK-WEE-Concept-Paper.pdf>
- Kabeer, N. and Natali, L. (2013). Gender equality and economic growth: is there a win-win? IDS Working Paper, 2013(417), 1-58. <https://www.ids.ac.uk/files/dmfile/Wp417.pdf>
- Kairaba, A. and Daale Simons, J. 2010. *Impact of the Land Reform on the Land Rights and Economic Poverty Reduction of the Majority Rural Especially Women Who Depend on Land for their Livelihood*. Kigali: Rwanda Initiative for Sustainable Development. <http://siteresources.worldbank.org/INTIE/Resources/475495-1302790806106/GOV6Pres3Kairaba2.pdf>
- Kazandjian, R., Kolovich, L., Kochhar, K. and Newiak, M. 2016. *Gender Equality and Economic Diversification*. IMF Working Paper, WP/16/140. Washington, DC: IMF. <https://www.imf.org/external/pubs/ft/wp/2016/wp16140.pdf>
- Kelkar, G. (2011). Gender and productive assets: implications for women's economic security and productivity. *Economic and Political Weekly*, 46(23), 59-68.
- Kes, A. and Swaminathan, H. 2006. Gender, Time Use, and Poverty in Sub-Saharan Africa. In C. M. Blackden and Q. Wodon (Eds.) *Gender, Time Use, and Poverty in Sub-Saharan Africa*. World Bank Working Paper No. 73. (pp. 13-38). Washington, DC: World Bank. http://siteresources.worldbank.org/INTAFRREGTOPGENDER/Resources/gender_time_use_pov.pdf
- Klasen, S., and Lamanna, F. (2009). The Impact of Gender Inequality in Education and Employment on Economic Growth: New Evidence for a Panel of Countries. *Feminist Economics*, 15(3), 91-132. <http://chicagopolicyreview.org/wp-content/uploads/2014/09/Gender-and-Economic-Growth.pdf>
- Kochlar, K., Jain-Chandra, S. and Newiak, M. (Eds.). (2016). Women, work, and economic growth - Levelling the playing field (excerpt). International Monetary Fund (IMF), 3-3. http://www.elibrary.imf.org/doc/IMF071/23146-9781513516103/23146-9781513516103/Other_formats/Source_PDF/23146-9781475579062.pdf
- Lemmon, G. T., & Vogelstein, R. (2017). Building inclusive economies. How women's economic advancement promotes sustainable growth. Council on Foreign Relations, 1-49. https://cfrd8-files.cfr.org/sites/default/files/report_pdf/Discussion_Paper_Lemmon_Vogelstein_Women_Economies_OR.pdf
- Manzanera-Ruiz, R., Lizárraga, C. and Mwaipopo, R. (2016). Gender Inequality, Processes of Adaptation, and Female Local Initiatives in Cash Crop Production in Northern Tanzania. *Rural Sociology*, 81(2), 143-171.
- Mayoux L. 2000. *Microfinance and the Empowerment of Women – Review of Key Issues*. Social Finance Programme Working Paper, No. 23. Geneva: ILO, http://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_117993.pdf
- McKinsey Global Institute. 2015. *The Power of Parity: How advancing women's equality can add \$12 trillion to global growth*. New York: McKinsey & Company. http://www.mckinsey.com/~media/mckinsey/global%20themes/employment%20and%20growth/how%20advancing%20womens%20equality%20can%20add%20%20trillion%20to%20global%20growth/mgi%20power%20of%20parity_full%20report_september%202015.ashx
- Miranda, V. 2011. *Cooking, Caring and Volunteering: Unpaid Work around the World*. OECD Social, Employment and Migration Working Papers, No. 116. Paris: OECD. <https://www.oecd.org/berlin/47258230.pdf>
- Mitra, A., Bang, J. T. and Biswas, A. (2014). Gender Equality and Economic Growth: Is it Equality of Opportunity or Equality of Outcomes? *Feminist Economics*, 21(1), 110-135
- Moorhouse, E. A. (2017). The Many Dimensions of Gender Equality and Their Impact on Economic Growth. *Forum for Social Economics*, 1-21.
- Naidoo, S., Hilton, A. and Melzer, I. 2006. *Access to finance for women entrepreneurs in South Africa: Challenges and opportunities*. Johannesburg: IFC-GEM/Department of Trade and Industry of South Africa. <http://www.ifc.org/wps/wcm/connect/d9b1840048855706bb4cfb6a6515bb18/Access+to+Finance+-+Women+in+South+Africa.pdf?MOD=AJPERES>
- Ndulo, M. 2011 African Customary Law, Customs, and Women's Rights. *Cornell Law Faculty Publications*. Paper 187. <http://scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=1186&context=facpub>
- Newton, A. 2012. How Can Policy Makers Increase Women's Labor Force Participation? *World Bank Blogs*, 23 January 2012. <http://blogs.worldbank.org/psd/how-can-policy-makers-increase-women-s-labour-force-participation>
- O'Sullivan, M., Rao, A., Banerjee, R., Gulati, K. and Vinez, M. 2014. *Levelling the field: Improving opportunities for women farmers in Africa*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/579161468007198488/Levelling-the-field-improving-opportunities-for-women-farmers-in-Africa>
- Odejide, A. 2014. "What Can a Woman Do?" Gender Norms in a Nigerian University. *Open Democracy*, 22 September 2014. <http://www.opendemocracy.net/5050/abiola-odejide/what-can-woman-do-gender-norms-in-nigerian-university>
- OECD (Organization for Economic Co-operation and Development). 2016. *Sub-Saharan Africa: SIGI Regional Report*. Social Institutions and Gender Index (SIGI). Paris: OECD. https://www.oecd.org/dev/development-gender/Mini-Brochure_SIGI_AfriqueSubsaharienne_EN-web.pdf

- OECD (Organization for Economic Co-operation and Development). 2017. Gender, Institutions and Development Database (SIGI). Paris: OECD. <http://www.genderindex.org/>
- OECD/OECD Development Center. 2017. "Gender, Institutions and Development (Edition 2014)", OECD International Development Statistics (database). DOI: <http://dx.doi.org/10.1787/data-00728-en>
- Østby, G., Urdal, H. and Rudolfson, I. 2016. What Is Driving Gender Equality in Secondary Education? Evidence from 57 Developing Countries, 1970–2010. *Education Research International*, Article ID 4587194. <https://www.hindawi.com/journals/edri/2016/4587194/>
- Oya, C. 2010. *Rural inequality, wage employment and labour market formation in Africa: historical and micro-level evidence*. Working Paper No. 97. Geneva: ILO. http://eprints.soas.ac.uk/10308/1/wcms_145084.pdf
- Randriamaro, Z. 2013. *The Hidden Crisis: Women, Social Reproduction and the Political Economy of Care in Africa*. Pambazuka News, 6th March 2013. <http://www.pambazuka.org/gender-minorities/hidden-crisis-women-social-reproduction-and-political-economy-care-africa>
- Reguera-Alvarado, N., Fuentes, P. D., & Laffarga, J. (2015). Does Board Gender Diversity Influence Financial Performance? Evidence from Spain. *Journal of Business Ethics*, 141(2), 337-350.
- Republic of Rwanda Ministry of Gender and Family Promotion. 2010. *National Gender Policy*. Kigali: Ministry of Gender and Family Promotion. <https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/94009/110188/F-1576743982/RWA-94009.pdf>
- SADC (Southern African Development Community). 2014. *SADC Gender Protocol Barometer 2014*. Gabarone: SADC.
- Seguino, S. and Were, M. 2014 Gender, Development and Economic Growth in Sub-Saharan Africa. *Journal of African Economies*, 23(1): i18–i61.
- SIDA (Swedish International Development Cooperation Agency). 2010. *Tool: African Conventions, Declarations and Agreements. Women's Economic Empowerment and Gender-Based Violence*. Stockholm: SIDA. <https://www.oecd.org/dac/gender-development/47566137.pdf>
- Skinner, C. 2008. *Street Trade in Africa: a Review*. Working Paper No. 51. KwaZulu-Natal: School of Development Studies, University of KwaZulu-Natal, South Africa.
- Thévenon, O., Pero, A. S., Adema, W., and Ali, N. (2012). Effects of Reducing Gender Gaps in Education and Labour Force Participation on Economic Growth in the OECD. OECD Social, Employment and Migration Working Papers.
- UNICEF (United Nations Children's Fund). 2016. Monitoring the situation of women and children. New York: UNICEF. <https://data.unicef.org/topic/child-protection/child-marriage/>
- UNICEF (United Nations Children's Fund). 2017. Global Databases [data.unicef.org], Data and Analytics Section; Division of Data, Research and Policy, UNICEF, last updated April 2016 <https://data.unicef.org/topic/education/secondary-education/>
- UN Women. 2015a. *Gender Equality, Child Development and Job Creation: How to Reap the 'Triple Dividend' from Early Childhood Education and Care Services*. Policy Brief, No. 2. New York: UN Women. <http://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2015/unwomen-policybrief02-genderequalitychilddevelopmentand-jobcreation-en.pdf?vs=713>
- UN Women. 2015b. *Transforming Economies, Realizing Rights, Progress of the World's Women 2015-2016*. New York: UN Women. http://progress.unwomen.org/en/2015/pdf/UNW_progressreport.pdf
- UN Women, UNDP, UNEP, and the World Bank Group. 2015. *The Cost of Agricultural Productivity in Malawi, Tanzania and Uganda*. <http://www.unwomen.org/en/digital-library/publications/2015/10/the-cost-of-agricultural-productivity>
- UNDP (United Nations Development Programme). 2011. *Human Development Report 2011: Sustainability and Equity. A Better Future for All*. New York: UNDP. http://hdr.undp.org/sites/default/files/reports/271/hdr_2011_en_complete.pdf
- UNDP (United Nations Development Programme). 2015a. *Human Development Report 2015: Work for Human Development*. New York: UNDP. http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf
- UNDP (United Nations Development Programme). 2015b. *UNDP Interactive Study: How vested interests promote or block gender equality and women's empowerment in terms of work, leadership and personal security*. Prepared by Forcier Consulting. New York: UNDP Regional Bureau for Africa.
- UNDP (United Nations Development Programme). 2016. *Africa Human Development Report 2016: Accelerating Gender Equality and Women's Empowerment in Africa*. New York: UNDP. <http://www.undp.org/content/undp/en/home/librarypage/hdr/2016-africa-human-development-report.html>
- UNDP (United Nations Development Programme). 2017. *Gender Inequality Index*. <http://hdr.undp.org/en/composite/GII>
- UNDP and the Huairou Commission. 2014. *Engendering Access to Justice: Grassroots Women's Approaches to Securing Land Rights*. New York: UNDP/the Huairou Commission. http://www.undp.org/content/undp/en/home/librarypage/democratic-governance/access_to_justiceandruleoflaw/Engendering-access-to-justice.html

- UNECA (United Nations Economic Commission for Africa). 2012. *African Women's Rights Observatory. Introduction to Monitoring Tools: The Convention on the Elimination of Discrimination against Women (CEDAW)*. <http://www1.uneca.org/awro/overview.aspx>
- UNFPA. 2012. *Marrying Too Young: End Child Marriage*. New York: UNFPA. <http://www.unfpa.org/sites/default/files/pub-pdf/MarryingTooYoung.pdf>
- United Nations. 2015. *The World's Women 2015: Trends and Statistics*. New York: United Nations, Department of Economic and Social Affairs, Statistics Division. <https://unstats.un.org/unsd/gender/worldswomen.html>
- Teigner M and Cuberes D. Universitat de Barcelona. 2014. *Aggregate Costs of Gender Gaps in the Labor Market: A Quantitative Estimate*. Barcelona: Universitat de Barcelona. <http://www.ub.edu/ubeeconomics/wp-content/uploads/2014/02/308-Web.pdf>
- Vanek, J., Chen, M., Hussmanns, R. and Carré, F. 2013. *Women and Men in the Informal Economy: A Statistical Picture*. 2nd ed. Geneva: ILO. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_234413.pdf
- Wekwete, N. N. 2014. *Gender and Economic Empowerment in Africa: Evidence and Policy*. *Journal of African Economies*, 23(1): i87-i127.
- World Bank. 2003. *Malawi Strategic Country Gender Assessment*. Washington, DC: World Bank. <http://siteresources.worldbank.org/EXTAFRREGTOPGENDER/Resources/MalawiSCGA.pdf>
- World Bank. 2012. *World Development Indicators, 2012*. Washington, DC: World Bank. <http://data.worldbank.org/data-catalog/world-development-indicators>
- World Bank. 2014. *Levelling the Field: Improving Opportunities for Women Farmers in Africa*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/579161468007198488/Levelling-the-field-improving-opportunities-for-women-farmers-in-Africa>
- World Bank. 2016. *Women, Business and the Law 2016: Getting to Equal*. Washington, DC: World Bank. <http://wbl.worldbank.org/~media/WBG/WBL/Documents/Reports/2016/Women-Business-and-the-Law-2016.pdf>
- World Bank. 2016b. *World Development Indicators*. Washington, DC: World Bank. <http://data.worldbank.org/data-catalog/world-development-indicators>
- World Bank. 2017a. *Enterprise Surveys*. Washington, DC: World Bank. <http://data.worldbank.org/indicator/IC.FRM.FEM0.ZS>
- World Bank. 2017b. *Gender Statistics*. Washington, DC: World Bank. <http://data.worldbank.org/data-catalog/gender-statistics>
- World Bank. 2017c. *Global Financial Inclusion (Global Findex) Database*. Washington, DC: World Bank. http://data.worldbank.org/data-catalog/financial_inclusion
- World Policy Analysis Center and MACHEquity (2014) *Legal Protections against Child Marriage around the World*. Los Angeles and Montreal: World Policy Analysis Center and MACHEquity. http://machequity.com/wp-content/uploads/2015/05/WORLD_Policy_Brief_Legal_Protections_Against_Child_Marriage_2015.pdf

APPENDICES

APPENDIX A: Methodology for quantifying labor productivity gap

Given a production function, where Q is the quantity of output, L is the quantity of labor used, and K is the quantity of capital employed.

$$Q = f(L, K) \quad (\text{A.1})$$

We examine average output per worker as: (A.2)

$$\text{Average Output per Worker} = \frac{\text{total output}}{\text{quantity of labor used}} = \frac{\text{GDP at constant prices}}{\text{Number of persons employed}} = \frac{Q}{L}$$

Such that a country's overall output per worker is equal to the average output of female and male workers, weighted by their respective presence in the labor force.

$$\text{Average output per Worker}_{ALL} = (\text{Share workers}_F \times \text{Average Output}_F) + (\text{Share workers}_M \times \text{Average Output}_M) \quad (\text{A.3})$$

We are able to obtain data on the following from ILOSTAT database (ILO, 2017) for Ethiopia, Malawi, Niger, Nigeria, Tanzania and Uganda.

Average output per worker in constant 2011 international US\$ in PPP (Average Output per Worker)

$$\text{Labor force participation ratios (LFPR)} = \frac{\text{Share workers}_F}{\text{Share workers}_M}$$

$$\text{Average agricultural productivity ratios – proxy for overall productivity (APR)} = \frac{\text{Average Output}_F}{\text{Average Output}_M}$$

Country	Average output per worker (GDP constant 2011 international \$ in PPP)	Labor productivity ratio: female to male output	Labor force participation ratio: female to male
Ethiopia	\$3,589	0.77	0.87
Malawi	\$1,890	0.75	1.00
Niger	\$2,917	0.81	0.45
Nigeria	\$17,642	0.76	0.75
Tanzania	\$6,273	0.94	0.89
Uganda	\$4,088	0.87	0.94

Using the available data, the following formula is applied to generate current output per worker for both females and males:

$$\text{Average Output}_M = \frac{\text{Average Output per Worker}}{\text{Share of Workers}_M (1 + (\text{LFPR} \times \text{APR}))}$$

$$\text{Average Output}_F = \text{APR} \times \text{Average Output}_M \quad (\text{A.4})$$

For the case of Ethiopia, the average output per worker, is US\$ 3,589; the female to male labor force participation is 0.87, and the female to male productivity ratio is 0.77. This implies that for every one male in the workforce, working at 100% relative productivity, there are 0.87 females in the workforce, working at 77% relative productivity. This gives the following results:

$$\begin{aligned} \text{Average Output per Worker} &= \text{US\$ } 3,589 \\ \text{Average Output}_M &= \text{US\$ } 4,018 \\ \text{Average Output}_F &= \text{US\$ } 3,094 \end{aligned}$$

APPENDIX B:

Methodology for quantifying opportunity cost of unpaid care work

The literature (Miranda, 2011) on unpaid work proposes two approaches for assigning a monetary value to the time which household members devote to household production: the opportunity-cost approach and the replacement-cost approach. The opportunity-cost approach values the time devoted to household production at the wage rate that a household member could have earned on the labor market. The underlying assumption is that the household member has foregone some earnings for home production. However, the limitations are that these individuals would not necessarily be able to find a lucrative job on the market based on their current qualifications. It is clearly important to move beyond an opportunity-cost approach and explore the reduction and redistribution of care work across the state, male household members and the community. Ample research endorses the necessity of this co-responsibility approach to care (Bustelo and Ferguson, 2011; Blofield and Martinez Franzoni, 2015; ILO and UNDP, 2009).

This model data uses from ILO on average nominal hourly earnings in selected countries as a proxy for potential wages that could be gained were women able to spend the same amount of time as men in unpaid care work. Data on paid and unpaid work in selected countries is taken from *The World's Women 2015: Trends and Statistics (2015)* for Rwanda, Ethiopia, Algeria, Uganda, Ghana and South Africa.

The methodology takes the hours of men's unpaid care work as the baseline and equalizes women's unpaid care work to that level. The additional care work hours performed by women that are saved are then shifted to paid labor and costed as the opportunity cost of women's unpaid care work. Individual country estimates show that women in these countries could earn an extra US\$ 40 to US\$ 640 dollars a year if they spent the same time as men on unpaid care work and were able to shift the time they spend on unpaid work to market based activities.

On average, the wage opportunity cost per woman per day, is \$1.10 and the annual wage opportunity cost per woman of US\$ 286.97. Extrapolating the average annual opportunity cost per woman to the total number of African women in the labor force in 2017 (ILO, 2017) yields the wage opportunity cost to women in Africa of the extra unpaid work they do, versus men, of US\$ 59.3 billion, or 2% of overall African GDP.

However, further research and data is required to ascertain the impact of different distributions of care work on Africa's growth.

APPENDIX C:

Methodology for quantifying labor productivity gap

For the three African countries for which data was available on agricultural land holding by sex, we analyze the gap between male and female productivity per hectare to infer the total additional yield and production that would be obtained if women's holdings were as productive as male controlled holdings.

Country	Productivity gap: men - women (% points)	Share female land holders	Actual production value (current, USD million)	Potential production with no gender gap (value)	Potential increase (value)	Potential increase (%)
Ethiopia	23	19.2%	12,594	13,176	582	5%
Malawi	25	32.1%	6,796	7,389	593	9%
Nigeria	24	10.0%	66,567	68,204	1,637	2%

Source: O'Sullivan et al., 2014 and FAO, 2017

Using the data on the production yield gap and the actual production value from O'Sullivan et al., 2014 and FAO, 2017, we calculate gross productivity which is less than the potential productivity as women's land is less productive than men's land (yield gap). The potential productivity is calculated by raising the yield on women's land to the same level as men's land.

Current productivity = (share of men land holders * men's land productivity) + (share of female land holders* women's land productivity)

Potential production value = (men's share of land * men's land productivity) + (women's share of land* men's land productivity)

Potential increase = Potential production value – current production value

APPENDIX D:

Methodology for quantifying labor productivity gap

A recent study by the McKinsey Global Institute (2015), which found that, globally, \$12 trillion could be added to GDP by 2025 by advancing women's equality, explored the impact upon economic growth of gender gaps by building a supply-side model that estimates the economic impact of closing the gender gap in labor markets in 95 countries. The model calculates GDP using five inputs, each of which is estimated by gender: $GDP = \text{working-age population} \times \text{labor-force participation rate} \times \text{employment rate} \times \text{full-time equivalent rate} \times \text{labor productivity per full-time equivalent employed}$.

The same model has been used to incorporate the variables discussed throughout this report in order to present the economic impact of closing the gender gap in labor markets in an African context.

For simplicity, this model makes a number of assumptions: it assumes inelasticity of the demand for labor, e.g. it assumes that no wage deflation would occur as a result of an increased labor force. It also assumes that there is employment available for a further 74 million people (according to ILO estimates for 2017, 274.65 million men in Africa participate in the labor force, versus 204.57 million women, meaning that if parity were achieved, an extra 74 million women would have to enter the labor force) and that rising employment for women would not result in a decrease of employment of men. This model also does not account for gender imbalances between economic sectors, e.g. the concentration of women in agricultural work. In order to expand this model to include this, productivity data per sex is required per sector. This could then be weighted to the proportion of people working in each sector by sex. This is a key research area to highlight for the future.

In order to account for the fact that Africa is not one homogeneous region, but instead represents many different economic and developmental realities, it was decided to create three separate models looking at low HDI countries, medium HDI countries and high HDI countries.

Because of the paucity of available data, certain adjustments had to be made in order to develop findings for each of these three bandings of countries.

The six countries for which productivity data by gender has been found in this study (from the World Bank Leveling the Field) are all low human development countries (Niger, Ethiopia, Malawi, Uganda, Nigeria and Tanzania). There is no productivity data by gender available for either medium HDI or high HDI countries.

Data gaps along the other variables meant that only Ethiopia, Malawi and Uganda were suitable for use in this model. The findings from these three low HDI countries were used to represent African low HDI countries overall.

For the medium HDI model, given that there is no productivity data available for medium human development countries, an average of the productivity data taken from the low HDI countries was used as a stand-in. Three African medium HDI countries – Namibia, South Africa and Morocco – were chosen to represent African medium HDI countries overall. The reason for choosing these countries was the availability of data on other variables. As in the low HDI scenario above, the findings from these three medium human development countries were taken to create a “medium human development country” labor model.

For the high HDI model, given that there is no productivity data available for high human development countries, an average of the productivity data taken from the low HDI countries was used as a stand-in. Three high development countries: Libya, Tunisia and Mauritius, were chosen to represent African high HDI countries overall. As above, an average was taken from the findings from these countries to represent high HDI countries overall.

The full-time equivalent rate was based on the average number of paid hours worked per week by women versus the average number of paid hours worked by men from the ILOSTAT (ILO, 2017) database.

Various scenarios were created:

1. A scenario in which women's labor force participation rate is equal to men's but all other factors are equal.
2. A scenario in which women work the same number of paid hours as men.
3. A scenario in which women are employed at the same rate as men.
4. A scenario in which women's productivity rate is equal to that of men.
5. A scenario in which all gender gaps in the labor market are closed.

Contacts

Report	Ayodele Odusola (ayodele.odusola@undp.org) Chief Economist and Head Strategy and Analysis Team UNDP Africa, New York Angela Lusigi (angela.lusigi@undp.org) Strategic Advisor UNDP Africa, New York
Press	Lamine Bal (lamine.bal@undp.org) Communications UNDP Africa, New York

About UNDP:

UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in nearly 170 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations. This report contributes to the existing qualitative and quantitative literature to articulate other ways of approaching macroeconomic growth that incorporate the political economy of gender inequality. It is hoped that this analysis can be expanded upon through further research on the key dimensions addressed in this report, as highlighted in the recommendations.

Acknowledgments:

This analytical report on “Closing gender gaps in labor and control over productive resources in Africa” was commissioned by the Regional Bureau for Africa of the United Nations Development Programme (UNDP Africa) with generous support of the Open Society Initiative – West Africa. The report was produced under the guidance of the Chief Economist, Ayodele Odusola by Ms. Angela Lusigi, Strategic Advisor in collaboration with Ms. Lucy Ferguson with research support from Ahmadou Mboup, Eleanor Wragg and Ruya Leghari. The views expressed in this publication are those of the author and do not necessarily represent those of UNDP. The paper received support from a group of internal experts and practitioners that provided guidance and reviewed the drafts. The review committee comprised of UNDP Senior Economists: Becaye Diara (Mali), Alka Bhati (Malawi), Ginette Camara (Benin), Amarakoon Bandara (Zimbabwe) and Glenda Gallardo (Angola).

Cover Design: Beat Studios Inc., Ottawa ON Canada

Copyright © April 2017

United Nations Development Programme
Regional Bureau for Africa
One United Nations Plaza
New York, NY 10017, USA



*Empowered lives.
Resilient nations.*

United Nations Development Programme
Regional Bureau for Africa
New York, NY 10017

www.undp.org

