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Qualitative evidence on barriers to and facilitators of women's participation in higher or growing productivity and male-dominated labour market sectors in low- and middle-income countries

SYSTEMATIC REVIEW, APRIL 2019

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EXECUTIVE SUMMARY

KEY FINDINGS

This review is based on 18 studies exploring the barriers to and facilitors of women's participation in commercial agriculture, trade and mining. Most of the studies focused on women who were very disadvantaged and struggling to meet a subsistence level. The studies were conducted in a wide range of countries, predominantly in sub-Saharan Africa.

The review found gender norms established by religious beliefs, tribal governance structures, and the history of communities create significant barriers to women's economic empowerment and labour force participation in low- and middle-income countries, especially in higher productivity, male-dominated sectors. Lack of social networks, infrastructure, technology, education and training; laws and gender norms that restrict women's access to resources; and gender discrimination can hold women back. Conversely, infrastructure, technology, cooperatives and social networks, training opportunities, rescinding restrictive laws, and prohibiting discrimination are recognised as conducive to women's economic empowerment. Global macroeconomic forces and external events like war, conflict and environmental crises can operate as both barriers and facilitators – in some cases hurting women's economic empowerment, but in others opening opportunities for women.

ABOUT THIS SYSTEMATIC REVIEW

This systematic review, funded by the UK Department for International Development (DfID), synthesises qualitative evidence on barriers to and facilitators of women's participation in higher or growing productivity and male-dominated labour market sectors in low- and middle-income countries. We systematically reviewed qualitative research to address the following key question: ***what are the main barriers to, and facilitators of, women's employment in male-dominated sectors with higher or growing productivity in low- and middle-income countries?*** A better understanding of these barriers and facilitators can inform efforts to increase women's economic empowerment.

By focusing on qualitative research, which is deeply contextual, this systematic review speaks to aspects of social and economic experiences that cannot be fully captured in quantitative analysis. For example, we describe more nuanced barriers to supporting women through cooperatives and networks. This work complements a related quantitative systematic review commissioned by DfiD (Langer et al. 2017, 2018), which focused on interventions designed to increase women's labour force participation. Our review is based on 18 studies focused on three sectors. Most studies focused on women who were very disadvantaged and struggling to barely meet a subsistence level, and the sectors that were included were most relevant to this population – formal and informal work in commercial agriculture, trade and mining. Our review highlights how the context and gender norms of a

woman's environment can facilitate or hinder economic empowerment, including wage labour participation, self-employment/business ownership and upward job mobility.

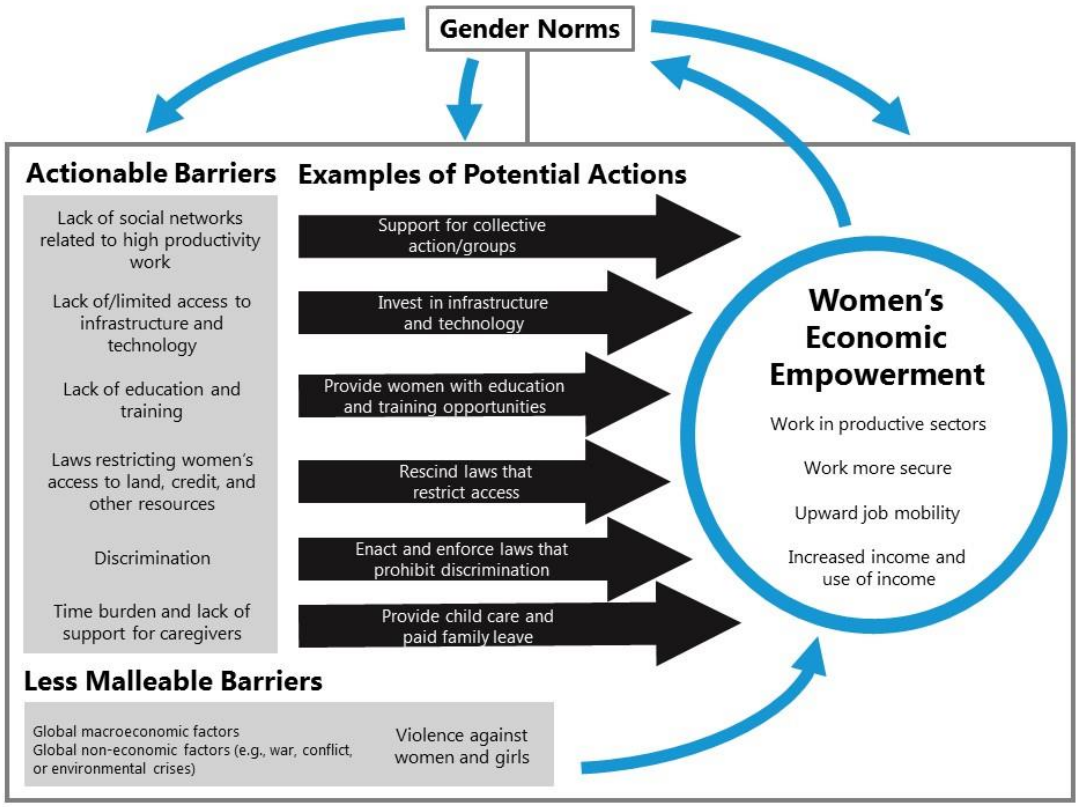
REVIEW APPROACH

We conducted our systematic review in two stages. In the first stage, we mapped the scale and nature of the relevant literature. In the second stage, we synthesised a defined set of studies and judged the quality of those studies and the strength of the findings.

Our search identified 5,521 potentially relevant studies derived from both academic databases and grey literature sources. Based on preliminary screening of abstracts, we retrieved the full texts of 216 studies for mapping. Of these, we excluded 198 studies; 176 did not meet the inclusion criteria (related to study design, population, language, publication date, geography, focus, and sectors) and after excluding based on the inclusion criteria, an additional 22 did not meet quality criteria (related to rigour in sampling, data collection, data analysis, and whether findings are supported by the data). This left 18 studies for the final systematic review. The vast majority of these studies were from sub-Saharan Africa (n=16), followed by East Asia (n=3), South Asia (n=1) and Latin America (n=1). The studies focused on three sectors: commercial agriculture (n=11), trade (n=12), and mining (n=4).

SUMMARY OF EVIDENCE

The conceptual framework presented below summarises the broad findings of our review.



This emergent framework, which builds on our prior work (Peters et al. 2016), differentiates between "actionable barriers" that are easier to change through policies and programmes and "less malleable barriers" that may be slower to change with respect to women's economic empowerment. These changes could be driven by state intervention or other mechanisms, such as NGOs or community action. Drawing from the qualitative studies we reviewed, we included illustrative examples of potential actions that could overcome barriers and increase women's economic empowerment. The framework also highlights the overarching role of gender norms – established by religious beliefs, tribal governance structures, and the history of communities – that was described in the vast majority of studies we reviewed.

REVIEW FINDINGS

Using a framework synthesis, we identified six analytic themes that were derived from 18 a priori and emergent descriptive themes that came from coding the studies. These six analytic themes include: (1) gender norms, culture, and laws; (2) access to resources; (3) networks and organisations; (4) technology, skills, and education; (5) global macro factors (economic and non-economic); and (6) unpaid care and women's time poverty. Three secondary themes were identified: (1) socioeconomic status; (2) corruption; and (3) transportation.

Gender Norms, Culture and Laws

Evidence about the importance of gender norms, culture, and laws was provided by 15 studies: eight high-quality and seven medium-quality studies. These studies were from 17 countries in sub-Saharan Africa, East Asia, South Asia and Latin America, and they were related to commercial agriculture, trade and mining industries.

One of the strongest and most consistent findings was the importance of considering the influence of social norms about gender. These gender norms, established by religious beliefs, tribal governance structures, and the history of communities, emerged in most of the reviewed studies as an important underlying factor in nearly all the barriers and facilitators that women experience. Gender norms influence social acceptability and perceptions about the roles that men and women should play in society, in the economic sphere, and at home.

These gender norms can restrict women's economic opportunities by limiting their access to information and networks, sectors and jobs, and assets. In addition, gender norms justify a gendered occupational segregation that tends to relegate women to jobs that are deemed less valuable, and thus pay lower wages. Gender norms are also cited to justify violence toward women and sexual harassment. In some cases, laws to protect women either do not exist or are not enforced. The literature we reviewed also identified cases where gender roles are changing, sometimes in response to an external event that requires women to take on roles previously held by men. This can create a feedback loop whereby when women take on non-traditional roles, it can increase the social acceptability of that outcome.

Access to Resources

Evidence about the importance of access to resources was provided by 14 studies: seven high-quality and seven medium-quality studies. These studies were from 17 countries in sub-Saharan Africa, East Asia, South Asia, and Latin America, and they were related to commercial agriculture, trade and mining industries.

Access to resources such as credit, capital and land are impediments to women earning more, deploying their time more efficiently, growing their businesses, negotiating prices more effectively, and by extension, advancing their economic empowerment. Sectoral differences are apparent in this set of facilitators/barriers, as entry and growth for different sectors requires different types of assets. Additionally, gendered social norms – such as those governing inheritance, ownership, and decision-making – are among the most pervasive barriers to resources.

Networks and Organisations

Evidence about the importance of networks and organisations was provided by 14 studies: seven high-quality and seven medium-quality studies. These studies were from 17 countries in sub-Saharan Africa, East Asia, South Asia, and Latin America, and they were related to commercial agriculture, trade and mining industries.

Formal cooperatives, unions, governments and government-related organisations, employers, and social and kinship networks, help reduce barriers to market entry and business improvement. This occurs by educating individuals in business practices and leadership, connecting them to networks of buyers and sellers, facilitating access to credit and capital, and helping individuals navigate various market environments or access government-supported programmes. Challenges to effectively supporting women's needs through formal networks include gender norms that discourage women from participating, lack of time for women to participate given the expectations around their gender roles, and poor management.

Technology, Skills and Education

Evidence about the importance of technology, skills and education was provided by 11 studies: five high-quality and six medium-quality studies. These studies were from 15 countries in sub-Saharan Africa, East Asia, South Asia, and Latin America, and they were related to commercial agriculture, trade and mining industries.

Technology, technical, business and management skills facilitate women's participation in economic activities and enhance their existing activities in ways that support their productivity and balancing of paid and unpaid work responsibilities. Some facilitative technologies (for example, agricultural technologies or mobile phones that are important in the trade sector) vary by sector. Women are impeded in accessing and developing technical, business and management skills by illiteracy and low education, time limitations (for

example, conflicting household roles and lack of technology), and gendered norms about the capacity of women to learn these kinds of skills.

Networks and cooperatives sometimes served as a means for gaining information and developing these skills. In the studies we reviewed, agricultural extension agents, who travel around providing the latest industry information to farmers, were also a means of learning new skills and techniques. However, access to these services varied by country, community, and was sometimes based on social, cultural and religious norms, for example, when women are prohibited from meeting with male extension agents who are not family members.

Global Macro Factors (Economic and Non-Economic)

Evidence about the importance of global macro factors – both economic and non-economic – was provided by 12 studies: five high-quality and seven medium-quality studies. These studies were from 14 countries in sub-Saharan Africa, East Asia, South Asia, and Latin America, and they were related to commercial agriculture, trade and mining industries.

The types of global factors discussed in these studies include non-gender-related macroeconomic factors, such as multinational investors, transnational corporations, international markets, economic liberalisation, male employment patterns, conflict and environmental degradation. Discussion of this theme focuses on a mix of facilitators and constraints on women's economic empowerment. On the one hand, trade liberalisation and other macroeconomic changes can create new opportunities – some that support women specifically, and some that indirectly create new employment opportunities for women due to men shifting to other work. At the same time, these shifts in opportunities sometimes create more burdens on women. For example, women may be left to perform the jobs that men used to do and to continue their previous duties, or formalisation driven by trade liberalisation may force women – who are concentred in informal sectors – out of work.

Environmental degradation is a global force that works in much the same way except in the opposite direction. The degradation decreases opportunities available in natural resources such as land needed for farming or bodies of water for fishing. As the more profitable areas that men were working in become degraded, they move to take over the less profitable areas where women were previously working. In turn, the women are pushed to even less profitable and more time intensive areas.

Unpaid Care and Women's Time Poverty

Evidence about the importance of unpaid care and women's time poverty was provided by 11 studies: six high-quality and five medium-quality studies. These studies were from 15 countries in sub-Saharan Africa, East Asia, South Asia and Latin America, and they were related to commercial agriculture, trade and mining industries. Types of factors included here relate to unpaid care, time poverty, physical demands and health needs.

Collectively, issues of unpaid care and time poverty repeatedly emerge as impediments to women's economic empowerment throughout the studies. Social norms are strong in

assigning women roles for cooking, child rearing, and other household tasks, and gender-assigned tasks are rarely adjusted when women take on work roles. These pressures can create practical, psychological and physical challenges for women burdened by extra work. Studies examining women's involvement in the mining industry noted discrimination against women for taking maternity leave and the need for mothers to leave their children with extended family and kin since the mines are often found in remote locations far from the village where the family lives.

Other: Socioeconomic Status, Corruption and Transportation

Evidence about the importance of these other factors is provided by 10 studies: four high quality and six medium quality studies. These studies were from 13 countries in sub-Saharan Africa, East Asia, South Asia and Latin America and they were related to commercial agriculture, trade and mining industries. Types of factors included here relate to socioeconomic status of individuals in four studies, government corruption in five studies, and transportation in three studies. The studies we examined identified corruption and the lack of safe, accessible transportation as potential barriers to women's economic empowerment. For example, government officials may fail to enforce laws in ways that hinder women's ability to work, or they may subject women to abuse. Further, women face safety risks that limit freedom of movement needed to get to work or travel for trade.

Some of the studies also suggested that coming from a higher socioeconomic status family may facilitate women's economic empowerment by providing resources to overcome some of the barriers described above. In addition, when working increases the socioeconomic status of women, this may create a virtuous feedback loop, promoting women's empowerment by helping to change entrenched social norms which will further support women's ability to participate in high productivity secors of the economy.

RESEARCH GAPS

Following a comprehensive search strategy, of the 216 studies that appeared possibly relevant from their titles and abstracts, on further inspection of the full reports, 37 provided no detail on labour market outcomes in high growth or male dominated sectors. Those that did focused on commercial agriculture (49%), trade (31%), business administration services (17%), energy including mining (16%), accommodation and food (11%), finance (6%), and transportation (3%). Other studies were unable to contribute to answering the review question because they did not address low or lower-middle income countries (38), and or were not qualitative studies (101) and therefore were unable to provide explanations about barriers or facilitators. A further 22 were excluded because they were not of high nor medium quality. This allowed the synthesis effort to be focused on the 18 studies that both fell within the review's scope and used research methods with high or medium rigour to elicit participants' experiences.

The 18 studies in this review focus on the roles and experiences of women working in agriculture, trade and mining, most of whom are self-employed. None of the studies are

direct evaluations of particular initiatives or interventions, but half examine the experiences of women in relation to a particular policy instrument or public service, including trade liberalisation, land reform, corporate social responsibility, cooperative participation and support, producer's supports and access to mobile phones.

Although the studies are situated in 18 countries, they are focused on women in particular communities engaging in particular sectors without the intention of being representative. Thus, they provide important insights into facilitators and barriers to women's economic empowerment that women in primarily poor, rural areas experience. However, this research does not allow us to compare the efficacy of facilitators or the relative difficulty of barriers either for the women in this study or women in other contexts. Instead, it provides a grounding for future research and considerations for policy. The strongest evidence emerges about the importance of considering the influence of gender norms in either further supporting a facilitator or constraining access to, participation in, or efficacy of strategies that would otherwise be facilitators. More research is needed, both to understand comparative differences in facilitators and contextual differences in barriers and to understand what drives social norms about gender.

CONCLUSIONS

We highlight four broad policy-relevant lessons from the findings described above.

1. ***Social norms about gender create important barriers to women's economic empowerment.*** Gender norms often dictate the kind of work women can do, and they block women's access to the supports that facilitate economic empowerment, including technology, training, land, credit, social networks and cooperatives. Gender norms can also undermine specific policy actions when women's rights laws are not enforced or widely known, perpetuating the status quo. But there is some evidence that these norms can be changed over time. Several studies suggest a feedback loop where strategies to increase women's ability to participate in the labour market and earn income can change gender relations, thus enhancing women's economic empowerment and subsequently changing gender norms and relations even more.

2. ***Global macroeconomic forces and other external factors that affect the economy can have positive and negative effects on women's economic empowerment.*** External forces can open up opportunities for women and help liberalise gender norms, especially if appropriate supports (such as cooperatives and access to technology) are in place. For example, when men move to the cities for better economic opportunities, they may leave farmland for women. However, market and trade liberalisation does not always lead to liberalisation of social norms—rather, it can further exacerbate the precarious situation of those who are most vulnerable, in particular, women. In addition, some studies suggested that women are often the most vulnerable to the negative consequences of external events like climate change or conflict. These macro factors are less malleable to intervention. Nonetheless, it is important for policymakers to identify and understand the potential impacts of these factors.

3. ***Barriers to women's labour market participation can be broadly categorised as either actionable or less malleable barriers.*** Actionable barriers are easier to change through policies and programmes. Our framework and findings highlight examples of potential actionable policies that we identify from our synthesis of the 18 qualitative studies. Each of these examples was included in multiple studies and related to multiple contexts. Because these studies are not experimental or quasi-experimental impact analyses, the results cannot be interpreted as causal. Rather, the studies illustrate the ways in which different policy interventions can operate differently across regions, sectors and other contexts. Specific examples, as shown in our conceptual framework above, include:

    - Supporting collective action/groups
    - Investing in infrastructure and technology
    - Providing women with education and training opportunities
    - Rescinding laws that restrict women's access to key resources
    - Enacting and enforcing anti-discrimination laws
    - Providing child care and paid family leave

4. ***The degree of women's economic empowerment and the ways in which external events and internal investments affect opportunities for women vary by study, country, and region.*** There is heterogeneity both in the levels of women's economic empowerment and the ways in which changes in women's economic empowerment respond to external events and internal investments. For example, countries have unique historical and cultural differences that affect women's empowerment. The story for many countries in Africa seems to be one where there are many historic barriers to women's empowerment, compared to East Asia – that is, barriers rooted in the social, cultural, religious, economic, demographic, political or conflict history of a country. Women's empowerment also seems to differ by sector, with more barriers (both legal and social) for mining compared to trade and commercial agriculture. Women's empowerment also varies by socioeconomic status (SES), with higher SES women having the resources to overcome many of the barriers to women's empowerment such as the time burden of caregiving and access to education and training.

Our review of 18 qualitative studies of the facilitators and barriers to women's economic empowerment in low and middle-income countries adds to findings from a recent quantitative systematic review (Langer et al. 2018) and a previous non-systematic review of the same topic (Peters et al. 2016). Gender norms and access to credit are themes in each of these studies. Our review's theme on technical, business, and management skills aligns with Langer et al.'s (2018) review of interventions. Similarly, our review highlights the critical role of macroeconomic factors in shaping women's access to economic opportunities and finds that most literature and policy interventions focus on women's horizontal movement into better paying jobs rather than upward mobility within a career trajectory.

By focusing on both actionable factors and less malleable factors, this review and the accompanying framework provide policymakers with a guide on how to think about policies, interventions, and investments that could enhance women's economic empowerment. The

study highlights the importance of understanding how interventions might be more or less likely to work in different contexts and the importance of social norms as a barrier that could undermine the success of specific interventions. This information could help inform the design and implementation of policies and interventions intended to increase women's economic empowerment and success in the labour market.

CONTENTS

1 BACKGROUND

1.1 AIMS AND RATIONALES FOR CURRENT REVIEW

Despite significant global progress toward gender equality across several key indicators in the economic, social, political and legal realms, a substantial difference persists in labour force participation rates between men and women in low- and middle-income countries (ILO 2013). Women are twice as likely to work in part-time employment than men and are more likely, in general, to be in vulnerable employment. Furthermore, labour markets continue to be gender-segregated, with women being overrepresented in public administration, community, social, and other services (ILO 2012) and underrepresented in sectors where productivity is high or growing such as commercial agriculture, energy, trade, transportation, accommodation and food, and business administration services (ILO 2010; ILO 2012; UCL 2016).

Even with some decline in occupational segregation globally through the mid-1990s, both horizontal segregation (overrepresentation of women in certain occupations) and vertical segregation (also known as the 'glass ceiling', or less pay and responsibility for women than men for the same job irrespective of the skill level or experience) have shown no improvement since that time (ILO 2012). Reducing these persistent differences between men and women in the labour market will not only increase women's access to economic and social opportunities but can also promote economic growth, increase economic output and reduce poverty (ILO 2016).

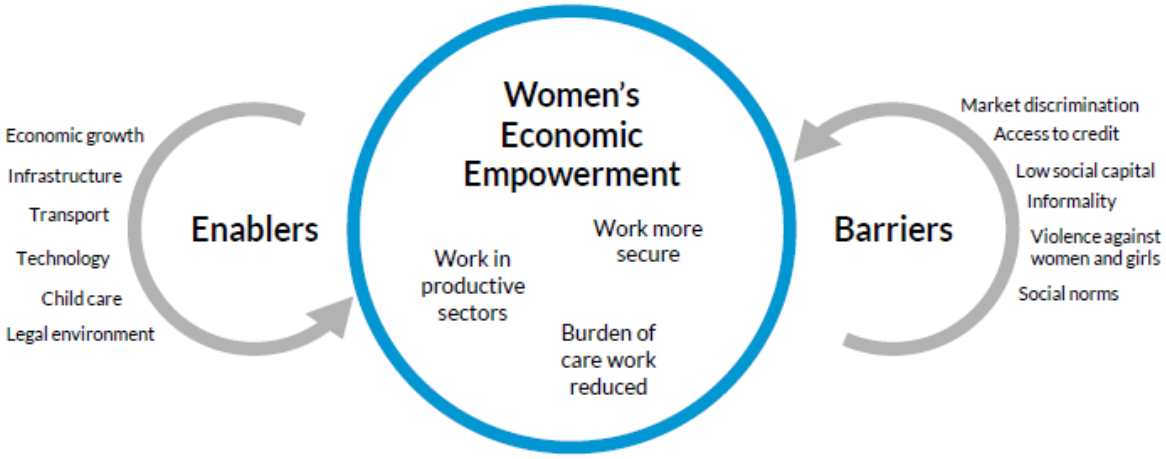
The current review advances knowledge of women's economic empowerment by systematically reviewing qualitative literature to address the following key question: **What are the main barriers to, and facilitators of, women's employment in male-dominated sectors with higher or growing productivity in low- and middle-income countries?**

1.2 DEFINITIONAL AND CONCEPTUAL ISSUES

In Figure 1, we illustrate the conceptual model that guided our recent literature review on women's economic empowerment (Peters et al. 2016). We developed this framework through an iterative process involving research team members identifying enablers and barriers from reviewing the literature. A group of research and policy experts provided feedback on earlier versions of the draft until all relevant barriers and facilitators were incorporated appropriately. One important aspect of women's economic empowerment, as can be seen in the figure, is women's work in more productive sectors, which is the foundation of this review.

In the current systematic review, early decisions about scoping the literature were informed by the facilitators and barriers identified in this framework. But after completing our framework synthesis analysis, we updated it in light of new findings and present the new version in the discussion (section 4, see Figure 5).

Figure 1. Preliminary Conceptual Framework



Source: Peters et al. (2016) *Women's Economic Empowerment: A Review of Evidence on Enablers and Barriers.*

At the outset of this review and based on our previous work (Peters et al. 2016), we envisioned facilitators (also referred to interchangeably as enablers, as in our prior work) as factors or policies benefiting broader society (for example, economic growth or infrastructure) or those focused on women (for example, child care or safer transport). Similarly, barriers include both deeply embedded, and thus slower to change, traditional norms regarding women's role in society and more actionable problems (for example, access to credit). These enablers and barriers, detailed in Peters et al. (2016), are described in greater detail below. As the review progressed, we assessed these factors specifically in promoting women's participation in higher-productivity and male-dominated sectors, a narrower target than their role in promotion of women's labour force participation in general. From our earlier work (Peters et al. 2016), we distilled the following key enablers and barriers:

Enablers

- *Economic growth:* This results in growing demand for labour, which creates incentives for employers to hire more female workers. This is particularly true in markets where high male employment reduces the size of the available male talent pool.
- *Infrastructure:* Investments and resulting improvements in public service delivery, such as rural electrification, reduce burdens on women's time, freeing them up for leisure and more economically productive activities.
- *Transportation:* Accessible and safe transport, particularly for women in urban areas, is essential both to their participation in the labour market and ensuring they can work at times of their choice.
- *Technology:* Diffusion increases women's access to education and training (for example, online instruction) and political involvement (social media) and it provides greater market

access, particularly given the growth of the gig economy. Technology can also reduce women's time burden through labour-saving appliances and infrastructure.

- *Child care:* Provision of child care is an important enabler of women's economic empowerment; reducing the time women need to spend providing care increases their ability to join and thrive within the labour market.
- *Legal environment:* Protections for women's rights, such as land ownership and greater control over assets, facilitate entrepreneurship and create enabling conditions for women to progress into higher-productivity jobs.

Barriers

- *Market discrimination:* gender-based discrimination, both implicit and explicit, limits the opportunities available for women to fully participate in all sectors of the economy.
- *Access to credit:* For women, access to credit is limited by lack of control over bankable assets, which prevents women-owned businesses from growing or lending being a source of social protection at critical junctures.
- *Low social capital:* For low-income people, social capital is often their primary social protection mechanism, particularly in times of crises such as loss of job or property. Women's social networks are often limited and thus less likely to serve this purpose.
- *Informality:* In low- and middle-income countries, women's jobs are often concentrated in the informal economy, particularly as home-based and domestic workers. These jobs are unregulated and underpaid, making women more susceptible to abuse. Informality also restricts firms' ability to grow, in part due to their inability to lend from formal credit channels or to enter into legal agreements with business partners.
- *Violence against women and girls:* Experienced violence or the threat of victimisation at home or in public or workplaces causes absenteeism and prevents women from participating in the labour market, resulting in tangible economic loses.
- *Social norms:* Prevailing norms regarding women's role in society (for example, primary responsibility for household chores and care duties; appropriateness of particular occupations for women) severely restrict their access to economic opportunity.

Occupational segregation is central to the question of women's access to high-productivity jobs. This topic is well researched in the economics and sociology literature, which includes clear evidence of a greater concentration of women in industries and occupations paying less than those dominated by men (Anker 1997; Oostendorp 2009; World Bank 2011). It is important to understand and differentiate between the demand side (why employers are less likely to hire women in high-productivity jobs) from the supply side (why women may self-select out of occupations that they are qualified for but may not pursue because of gendered stereotypes).

This self-selection is an outcome of a complex interplay of several social, and economic factors. For example, Salinas and Romani (2014) emphasise the pivotal role of gender norms and

accompanying conceptualising of what constitutes 'women's work' and 'men's work' in the context of recruiting women for mining jobs. Thus gender differences in concentration of occupations, industries and productivity levels are due, in part, to self-selection. However, other constraints, on both the supply and demand side can also affect occupational segregation by gender. For example, women may have different social and information networks that affect their knowledge about the work that is available (Contreras et al. 2007). In addition, there are factors imposed by others such as firms with discriminatory hiring and promotion practices (Abbas et al. 2011) and laws and customs that protect existing workers from new entrants, including women (Razavi et al. 2012).

High-Productivity Sectors and the Informal Economy

In simple conceptual terms, productivity is defined as output per worker. Hence, in high-productivity sectors such as finance or software engineering, workers require advanced technical and problem-solving skills that command higher salaries. These are the opposite of low-skilled employment, such as brick laying or home moving services, which do not require higher education and thus do not command high salaries in the labour market. By targeting our searches on higher-productivity sectors such as commercial agriculture, energy, trade, transportation, and business administration services, we were able to uncover more specific barriers, along with facilitators and accompanying and actionable policy ideas.

Our review is concerned with barriers to and facilitators of both formal and informal wage labour outcomes, as applicable to high-productivity sectors. The informal economy includes income-generating activities that are not covered, or insufficiently covered, by formal arrangements (ILO 2002). Informal wage labour takes place outside the recognised system; it is not taxed, regulated, or monitored by government. Its inclusion in this review is important because the informal sector is a large share of employment in the developing world, accounting for an estimated 50 percent of GDP in developing economies in 2010 and employing as much as 40 to 80 percent of the working population (Charmes 2012; ILO 2004).

Women and youth are disproportionately represented in the informal economy and are often the most marginalised, particularly in high-productivity sectors (ILO 2013). Operating outside state protective systems can leave women vulnerable to poverty, exploitation and abuse. Most workers in the informal economy are low-income. Nevertheless, informal work is an important part of economic life in the developing world and can provide meaningful economic opportunity (Darbi et al. 2018). Additionally, this sector is diverse – for example, the informal economy includes successful enterprises that operate outside the formal sector, in part to avoid taxes or regulations (ILO 2013). Consistent with most literature on the informal economy, and given the focus on women's empowerment, we exclude businesses that focus on illegal criminal activity (Losby et al. 2002).

Women in low- and middle-income countries tend not only to be underrepresented in wage employment (horizontal segregation) but also concentrated in lower-status, lower-earning positions with less decision-making authority (vertical segregation) (ILO 2016). To more fully address economic empowerment within the context of wage labour employment, our review included research on outcomes associated with career progression, entrepreneurial success and vertical segregation (upward job mobility).

Higher-Productivity Sectors that are Male Dominated

This systematic review sought studies focused on women's participation in higher or growing productivity sectors that are male-dominated (UCL 2016). These sectors were consistent with our scoping review on sectors that tend to be male-dominated and have been identified as higher or growing productivity (Peters et al. 2016, UCL 2016). We also tested search terms and listed sectors relevant to low and middle-income countries (LMICs), which include:

- Accommodation and food
- Business administration services
- Commercial agriculture
- Energy (that is, mining and quarrying, electricity, gas and water supply)
- Finance
- Trade
- Transportation

After applying all inclusion criteria, as described in section 2 below, studies in our final review focused on commercial agriculture, trade and mining.

1.3 POLICY AND RESEARCH BACKGROUND

Policymakers have implemented programmes, policies and other strategies to redress economic inequities not only to protect women's basic human rights, but also to achieve the gains in economic growth and productivity that women's full participation in the labour market can provide (Duflo 2012). A recent systematic review (Langer et al. 2018) identified evidence that certain interventions were effective in increasing women's participation in high-productivity sectors in low- and middle-income countries. In particular, the analysis found sufficient evidence to conclude that combined job training and job placement interventions effectively improve women's wage labour employment and income.

To accompany that review of programmatic interventions, this study seeks a more nuanced understanding of the barriers to and facilitators of women's participation in higher productivity and higher paying sectors. Women's economic empowerment is now widely recognised in the international development community as a frontier challenge. This resulted in the formation of

a UN High-Level Panel on Women's Economic Empowerment and prominence within the 2030 Agenda for Sustainable Development.[1]

A wide range of factors hinder women's participation in the labour market, especially in higher productivity sectors that are male-dominated. Many countries around the world, either with international donor support or in response to domestic economic policy compulsions, are changing laws, regulations and policies to address these barriers. A trans-disciplinary literature has emerged in recent years that reflects on barriers to women's participation in high-productivity and/or male-dominated sectors, which is the specific focus of this study. It includes factors such as harassment and discrimination in the workplace; institutional discrimination in the market; access to land, credit and capital; lack of technical and business skills to assume senior positions; social norms; and behavioural biases (Devi 2015, Duvvury et al. 2013, Eftimie et al. 2009, ILO 2016, Kabeer 2012, Kahnemann 2011, Peters et al. 2016, Pronyk et al. 2006, Ribero and Sánchez 2004, Sabia et al. 2013, Samman et al. 2016, Thaler and Sunstein 2008, UN 2013).

Although this literature has contributed to policy interventions for overcoming barriers, there is a clear need to synthesise this knowledge and identify knowledge gaps. Our review addresses this systematically by summarising the state of qualitative research on barriers to and facilitators of women's participation in higher productivity market sectors that are male-dominated and on how these factors operate to support or deter women's participation in these sectors. We deliberately focus on studies using only qualitative methods.

To improve potential for greater policy impact of this review, in our updated conceptual framework (presented in section 4 below) we highlight barriers that could be overcome in the short- to medium-term by policies or programmes (for example, through government, NGOs, or other organisations). These are clearly distinguishable from critical and overarching, albeit much harder and slower to surmount, barriers such as social norms and macroeconomic factors, which are more difficult to influence through direct action.

Our focus on qualitative research adds to findings from a recent systematic review on this topic focused on quantitative methods (Langer et al. 2018). Many interventions have been undertaken to bring more women into the higher-productivity jobs, which is expected to ultimately improve their economic empowerment. The Langer et al. (2018) review is focused on distilling evidence on interventions, focusing on experimental and quasi-experimental studies.

[1] See https://sustainabledevelopment.un.org/content/documents/9783ESCWA_2030%20Agenda%20for%20Sustainable%20Development-Gender%20Equality.pdf

While Langer et al. (2018) focus only on interventions, our review complements that study by attempting to uncover a broader set of logical pathways from actions to impacts. Qualitative reviews can be central to exploring aspects of social and economic experiences that cannot be fully captured in quantitative analysis. Growing interest in qualitative reviews reflects an understanding that they can add to knowledge gained from quantitative syntheses and generate new knowledge inaccessible through quantitative methods (Gough 2015; Seers 2015).

The current review features both less malleable and slow-changing barriers to women's economic empowerment, such as gender norms, and more actionable facilitators, such as changing legal frameworks, facilitating the development of cooperatives and developing training programmes for women. The latter include both gender-neutral measures, such as improving infrastructure and public services, and women-specific measures, such as rescinding discriminatory laws.

1.4 REVIEW OBJECTIVES

The current review advances understanding of the issues described above by systematically reviewing qualitative literature to address the following key question: ***What are the main barriers to, and facilitators of, women's employment in sectors with higher or growing productivity that are male-dominated in low- and middle-income countries?***

This review has several objectives:

1. Identify the number and scale of qualitative studies on the barriers to and facilitators of women's participation in male-dominated higher or growing productivity labour market sectors in low- and middle-income countries;
2. Assess the quality of this literature;
3. Summarise the findings of research in this area—limiting our review to high- or high- and medium-quality studies—describing factors that are barriers to and facilitators of women's participation and how these factors operate to influence women's participation; and
4. Show how findings differ for key sub-groups of women, including but not limited to those defined by women's age and stage in the life course, education, and residence in urban or rural settings.

As part of objective 4, we sought to identify differences for key sub-groups of women. Ultimately, our ability to draw conclusions about specific groups was limited by the nature of

studies meeting all eligibility criteria and included in our final in-depth review. Consequently, our findings focus primarily on variation associated with countries, regions, and sectors.

1.5 REVIEW TEAM

This review was co-led by Drs. H Elizabeth Peters (Urban Institute) and Dorothy L Espelage (University of Florida). Urban Institute researchers Edward Mohr, Tyler Woods, Emily Reimal, Micaela Lipman, Carol Tripp, Janet Malzahn, Erica Undeland and Gayane Baghdasaryan as well as University of Florida researchers Alberto Valido, Joseph Fuhrmeister, America el Sheikh and Alexandra Montesion supported the screening and coding activities under the senior review of Drs. Yasemin Irvin-Erickson (George Mason University), Ammar A Malik (Harvard Kennedy School of Government) and Shirley Adelstein (Urban Institute). Urban Institute's information scientist Rachel Lewin helped optimise search strategies. Dr. Teresa Derrick-Mills served as senior advisor on rating the quality of studies and synthesis. Drs. Sandy Oliver and Mukdarut Bangpan (EPPI-Centre, University College London) served as senior advisors for all aspects of the review.

2 METHODS

Our review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidance (Moher et al. 2009) provided in Appendix 1 and followed the advice on the logic and processes of systematic reviewing for systematic reviews by Gough et al. (2017). In this section, we describe in detail the following:

- key stages of the review;
- study inclusion criteria;
- search strategy;
- data extraction methods;
- quality appraisal methods; and
- data synthesis methods.

2.1 TYPE OF REVIEW

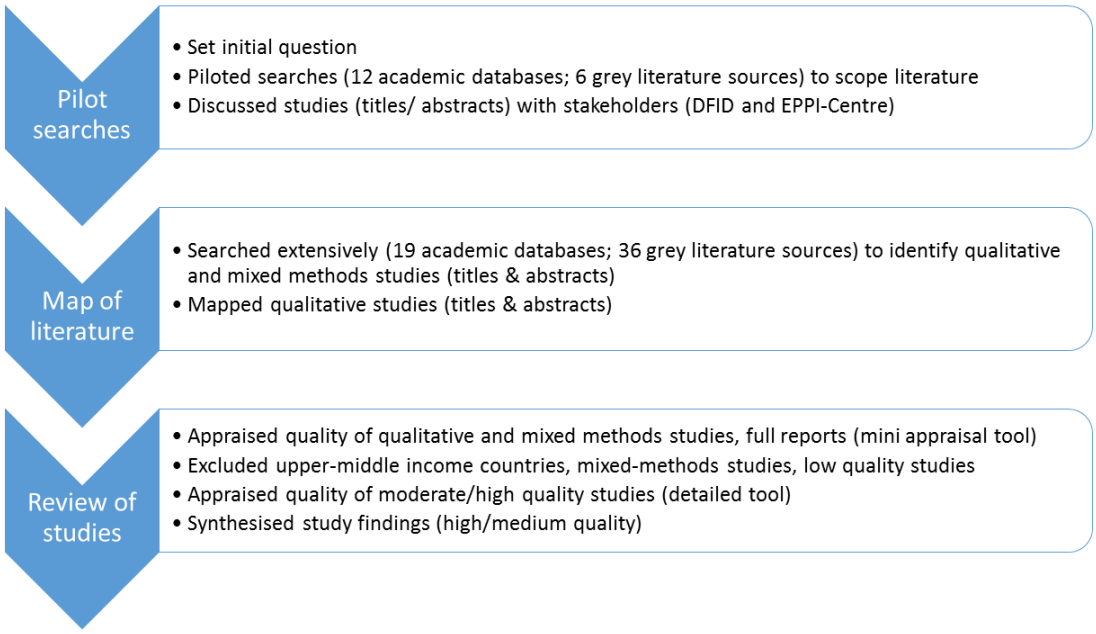
We conducted a systemic review of qualitative evidence on barriers to and facilitators of women's participation in higher and growing productivity, male-dominated sectors. Systematic reviews are rigorous ways of synthesising results from primary studies to provide answers to important policy and practice questions. Although systematic reviews of quantitative evidence are prominent in a variety of fields, undertaking systematic reviews of qualitative evidence is a rapidly growing practice in the field of international development among others.

Decisions on the interventions and practices in different fields require the consideration of best available evidence, including but not limited to quantitative evidence. Systematic reviews of quantitative studies provide summaries of results from studies (mostly randomised controlled trials) on interventions, programmes and practices with high-level evidence on the impact of these (Cochrane 2018). However, there is an increasing agreement in different fields of study that qualitative evidence, and synthesis of qualitative evidence, is critical in informing decisions, especially for complex programmes and interventions. This includes understanding "the values that people attach to different outcomes, effects of an intervention on health and social outcomes, acceptability and feasibility of the intervention, resource use and cost effectiveness, equity impacts, ethics, and implementation and scale-up considerations" (Lewin et al. 2015).

The methods for reviewing qualitative evidence have been well developed in the past ten years. Similar to systematic reviews of quantitative evidence, reviews of qualitative evidence also follow a rigorous, transparent and systematic method including critical appraisal of the quality of the studies included in the review. We followed a systematic review protocol to ensure rigour and transparency of methods (see Peters et al. 2018 for our initial protocol and section 2 below for details of our final methodology).

We conducted our review in two stages: a first stage consisting of a map to estimate the scale and nature of the relevant literature available, and a second stage with the full systematic review to synthesise the findings of a defined set of studies and judge the quality of those studies and the strength of the synthesised findings. Our design is summarised in Figure 2.

Figure 2. Review Design



Our work began with pilot searches to further familiarise ourselves with the research topic and search terms. Through these pilot searches, we examined the number and breadth of studies identified to develop a more refined search strategy.

We mapped the evidence captured in two stages: first using the outputs of pilot searches (mapping) and second using the outputs of the final search (full review). At each stage we coded the title and abstract of each relevant study identified by our search strategy to describe these studies and to produce a map of the relevant literature (see Appendix 2 for mapping keywords and section 2.2 for the study inclusion criteria). Through this initial coding, we captured key information on the (1) topic focus, (2) geographic location, (3) study design, (4) sector focus, and (5) outcome of the included studies. This mapping exercise informed our review in two ways:

- identifying what kind of research has been conducted on our review topic; and
- identifying likely gaps in the evidence on our review topic.

Following discussion of our mapping with DFID and the EPPI-Centre at UCL (hereafter UCL), we conducted a full systematic review of qualitative studies addressing specified sectors in low and lower-middle income countries. Appendix 7 details our mapping process and the findings of our systematic search resulting in the final 18 included studies.

2.2 CRITERIA FOR INCLUSION OF STUDIES IN THE MAP

Studies needed to meet the six eligibility criteria detailed in this section to be included in the review. These criteria for stage 1 (mapping exercise) and stage 2 (full systematic review) were slightly different, with revisions made to narrow the scope of eligibility after the completion of stage 1 and after discussions with DFID and the EPPI-Centre. Sections 2.2.1 through 2.2.6 describe our stage 1 inclusion criteria, and section 2.2.7 describes revisions made to narrow the scope for the stage 2 full systematic review.

2.2.1 STUDY DESIGN

We included studies that reported qualitative data on the barriers to and facilitators of women's participation in the sectors of interest in our review. To operationalise barriers and facilitators, we drew on our preliminary conceptual framework articulated in Peters et al. (2016) and shown in Figure 1 above. Key terms related to these a priori framework elements were included as search terms (see Appendix 5). These studies initially included both qualitative and mixed-methods studies as described below:

Qualitative studies: All qualitative study designs were considered for inclusion. These designs included action research and thematic approaches to qualitative data analysis, case studies, ethnographic research, grounded theory, content analyses, and phenomenological studies.

Mixed-methods studies: All mixed-methods studies where the qualitative component(s) comprised a substantial feature of the study and contribute substantively to the findings were considered for inclusion.

We excluded all studies that did not have a qualitative data analysis component. We further excluded from our analysis studies that did not have a clear methods section and results section, as well as products such as editorials and opinion pieces. Additional quality appraisal methods are described below.

2.2.2 POPULATION

To be included in the review, the studies had to meet the following population criteria:

Gender: A study was included in the review if the study sample was majority women 15 years and older (51% or more). The two exceptions to this condition were as follows: (1) the sample was not majority women, but the study explicitly focused on male-female differences in outcomes and separated out a discussion of women; and (2) the study sample was not majority adult, but the study results were disaggregated by age.

Geography: A study was included in the review if the geographic setting was either a low- or a middle-income country as classified by the World Bank at the time of data collection for each study (see Appendix 4).

2.2.3 LANGUAGE

Only studies published in English were included in our review.

2.2.4 PUBLICATION DATE

Only studies from 2000 to the present were included in our review.[2]

2.2.5 FOCUS

To be included in our systematic review, studies must have focused on participation in formal or informal wage labour employment (including self-employment) in higher or growing productivity sectors that are male-dominated. To more fully address economic empowerment within the context of wage labour employment, research on outcomes associated with career

[2] This year coincides with the United Nations Millennium Declaration that was signed in 2000 to commit world leaders for eight development goals, including combating discrimination against women.

progression, entrepreneurial success, and vertical segregation within these sectors were also considered as part of the first-stage mapping review.

2.2.6 SECTORS

As indicated in section 1, we only included studies in our searches that focused on women's labour force participation in at least one of the below sectors:

- Accommodation and food
- Business administration services
- Commercial agriculture
- Energy (that is, mining and quarrying, electricity, gas and water supply)
- Finance
- Trade
- Transportation

2.2.7 STAGE 2 (FULL SYSTEMATIC REVIEW) ADDITIONAL CRITERIA

The criteria above were applied during our stage 1 mapping exercise. After mapping the evidence available, and before embarking on the stage 2 full systematic review, we excluded studies based on three further criteria (see Appendix 7 for details):

1. mixed-method studies;
2. studies conducted in upper middle-income countries; and
3. studies with low quality based on an initial quality screening (see section 2.4).

2.3 SEARCH STRATEGY FOR IDENTIFICATION OF RELEVANT STUDIES

We used a comprehensive search strategy to search the international research literature for relevant studies. The aim was to identify evidence related to the review question. We used a wide range of sources to capture both academic and grey literatures. Our search strategy consisted of (1) a formal search of academic databases using search strings based on Boolean operators, and (2) a formal search of grey literature using keyword searches and applying a modified search string in Google searches with Boolean operators.

2.3.1 SEARCH OF ACADEMIC DATABASES

We conducted searches to identify the articles for inclusion in this systematic review using the following databases:

- Academic Search Complete
- ASSIA
- Australian Education Index
- Canadian Research Index
- CBCA: Education
- CBCA: Social Sciences
- EconLit (EBSCOhost)
- Education Full Text (H.W. Wilson)
- International Bibliography of the Social Sciences (IBSS)
- ERIC (EBSCOhost)
- ProQuest Dissertations and Theses
- ProQuest Education Journals
- ProQuest Social Science Journals
- PsycInfo
- PubMed (Medline)
- Social Science Abstracts (H.W. Wilson)
- Sociological Abstracts
- Web of Science
- Wiley Online

The general key concepts we used for the search query in databases are presented below. These concepts are informed by our inclusion and exclusion criteria (described in section 2.2 above) and the outcome framework presented in this section. We combined search terms related to the key concepts using the following Boolean combination: 1 AND 2 AND 3 AND 4 AND 5 (see Appendix 5 for a detailed list of search terms).

1. Low- and middle-income countries (including lower-middle and upper-middle)
2. Women
3. Type of study
4. Outcome
5. Sector

2.3.2 SEARCH OF GREY LITERATURE

We consulted existing reviews and evidence syntheses produced by the World Bank, the Overseas Development Institution (ODI), the United Nations (UN), and the International Labour Organization (ILO). We also assembled a list of the major funders of research in this area and searched their websites (these organisations are included in the below list). In addition, we searched the grey literature extensively, following the suggestions of Hammerstrøm et al. (2010), and included the following open-source databases we have identified based on other systematic reviews and consultation with subject matter experts:

- Abdul Latif Jameel Poverty Action Lab (J-PAL) Evaluation and Publication Database
- African Development Bank Evaluation Reports
- Asian Development Bank Evaluation Resources
- BRAC
- Campbell Collaborative Library
- Centre for Global Development
- CORDIS Library
- Database of Systematic Reviews (3ie)
- DFID Repository
- ELDIS
- enGENDER IMPACT
- EPPI-Centre Systematic Reviews
- Grey Literature Database (Canada)
- Harvard Women and Public Policy Program
- Hewlett Foundation
- Innovations for Poverty Action Database
- Institute of Development Studies
- Institute of Labour Economics (IZA)
- Inter-American Development Bank Office of Evaluation and Oversight
- International Centre for Research on Women
- International Growth Centre
- Labordoc (ILO)
- National Bureau of Economic Research
- Overseas Development Institute
- Oxfam
- Poverty and Economic Development Research Network
- Register of Impact Evaluations Published Studies
- RePEc
- Research for Development

- UN Women Economic Empowerment
- UNDP International Policy Centre for Inclusive Growth
- USAID Development Experiences Clearinghouse
- Social Care Online (UK)
- Social Science Research Network eLibrary
- World Bank Independent Evaluation Group
- World Bank Open Knowledge

2.3.3 MANAGING AND DOCUMENTING THE SEARCH AND SELECTION PROCESS

We used EPPI-Reviewer 4 software developed by Thomas et al. (2010) to store and analyse the systematic review data. All potentially relevant items identified through the academic database search were exported to EPPI-Reviewer and then manually screened for eligibility, with EPPI-Reviewer being used to keep track of decisions made about each citation.

Search hits from organisational repositories that were deemed relevant for the map, plus those over which there was some doubt, were transferred to EPPI-Reviewer. Upon screening against the selection criteria, a record of all decisions taken was kept in EPPI-Reviewer.

2.3.4 STUDY INCLUSION

We screened studies for inclusion after importing all the hits from academic databases, along with all potentially relevant items from the grey literature searches, to EPPI-Reviewer 4 Database. The study inclusion criteria described in section 2.2. were piloted by pairs of two screeners (one junior screener and one senior reviewer) who screened 50 search hits independently, then compared and discussed their assessments. Discrepancies were resolved by further examination of the respective titles and abstracts by these pairs of screeners.

If the screeners in each pair could not reach a final decision, a third reviewer was asked to reconcile differences. This process was repeated until consistency in application of the selection criteria was achieved. After our team was confident that all screeners were consistent in their study inclusion decisions, the remaining studies were split between the screeners who worked through the inclusion criteria independently.

2.3.4.1. STAGE 1: SCREENING FOR THE MAPPING EXERCISE

During the first stage mapping exercise, studies were screened on the eligibility criteria as detailed in section 2.2: study design, population, focus, sectors, language and year. As described at the end of section 2.2 and in section 3.1, after the scoping review, in consultation with DFID and UCL, the criteria for in-depth review, data extraction, and synthesis were revisited to narrow the scope of the review.

At this first stage, we applied the eligibility criteria to the titles and abstracts of all studies. However, at the beginning of this stage, as an additional quality assurance step, we looked at a sample (approximately 2%) of the full texts of studies. The rationale for this decision was two-fold. First, we wanted to recognise the different ways in which papers that fell within the scope were described in titles and abstracts. Second, we wanted to ensure that the team members were able to consistently apply the eligibility criteria against the additional information in the full text to revisit inclusion decisions. This helped us have earlier discussions within the review team to identify the challenges against applying the criteria; refine definitions and interpretations of these criteria as necessary; and screen the studies more efficiently.

2.3.4.2. STAGE 2: SCREENING FOR THE IN-DEPTH REVIEW DURING FULL SYSTEMATIC REVIEW

We screened all studies included in the second stage (in-depth review) using full texts. The screening criteria for the in-depth review were finalised after conferring with DFID and UCL at the end of the mapping exercise update (this process is described in section 3 below). To avoid the risk of reviewing studies with few relevant findings, we included only studies where the main focus of the paper was on the sectors and populations of interest (excluding those where findings from the sectors or populations of interest are only available as part of a much bigger picture). Studies were also appraised using clear quality appraisal criteria (see section 2.4).

2.4 APPRAISAL OF QUALITY OF STUDIES

All included papers were appraised for methodological quality before inclusion in the review. As described in section 3, quality appraisal was conducted in two phases: an abridged appraisal at the mapping stage and a more extensive appraisal at the full review stage. Appendix 6 shows our appraisal tool, adapted from Bangpan et al. (2017), with shaded portions indicating the parts used for the abridged review.

At the mapping exercise stage:

The first phase appraised articles were screened for inclusion based on eligibility criteria outlined in our protocol. Drawing from Bangpan et al. (2017), and in consultation with a qualitative methods expert at the Urban Institute and staff at UCL, the research team adopted a six-criteria quality assessment focused on basic elements of qualitative research quality including clear descriptions of sampling, analysis techniques, and appropriateness of findings in relation to these described techniques. For each criterion, an article received a value of 0 (did not meet), 0.5 (partially met), or 1 (fully met). Additionally, as an extra quality check, each article was screened again for relevance based on our original inclusion and exclusion criteria before receiving a quality score. This process allowed the research team to screen a large number of articles to quickly exclude the many that did not meet the most basic quality standards.

The tool was piloted by the research team through iterative rounds of application to individual articles to achieve consensus on the guidelines associated with each rating and criterion. A senior qualitative methods advisor was consulted to inform decisions about ensuring alignment across coders. Each article was then independently appraised by two researchers, one junior and one senior. After these initial independent appraisals, the senior coder in each pair reviewed any studies where the junior and senior quality score diverged by more than 1 point and determined the final rating for each criterion. If the senior coder had any doubt about the appropriate rating, the full research team was consulted. Finally, the unrounded junior and senior coder scores were averaged to a create a summary quality score for each article, which ranged from 0 to 6.

The list of articles was subsequently limited to those receiving a score of 3 or greater—that is, the article met at least half the essential quality criteria included in the initial appraisal. These articles were then shared with the team's qualitative research methods advisor for full quality appraisal and risk of bias assessment.

At the full review stage:

The full quality appraisal and risk assessment utilised the remaining portions of the Bangpan et al. (2017) assessment instrument, maintaining the scoring method from the abridged tool application (0, 0.5, or 1). The final tool included a total of 10 criteria in four areas:

1. Rigour in sampling
2. Rigour in data collection
3. Rigour in data analysis
4. Findings supported by the data

Each article received a final quality score ranging from 0 to 10 (with scores 8 or above considered "high," scores below 8 but greater than or equal to 3 considered "medium," and scores below 3 considered "low"). In addition, the full appraisal included a descriptive assessment of biases in sampling, data collection, analysis, and whether findings were supported by the data, noting the intentional ways the study was biased and the unintentional ways that the study may have become biased.

In addition, the bias assessment examined the extent to which the study "privileged participants' perspectives/experiences," another Bangpan et al. (2017) assessment dimension. This is the one dimension without a quantitative counterpart as it refers to techniques used in qualitative data collection and analysis that support expression of participants' emergent perspectives and experiences rather than constraining what is learned through a priori frameworks. Allowing participants to engage in story-telling or asking open-ended questions are examples of data collection strategies that privilege participants' perspectives in ways that closed-ended questions do not.

2.5 DATA EXTRACTION

We used our pre-defined tool (see Appendix 3) to extract data from the included studies. We transformed our data extraction tool into a coding set on EPPI-Reviewer 4 to extract information required for the in-depth review of the full text of documents. For data extraction, examined full text reports and coded studies on variables related to the study characteristics, sample characteristics, study methodology (including study focus, sample, design, data collection and analysis methods), outcomes, mechanisms (facilitators and barriers), and main study findings.

Five members of our review team piloted the data extraction tool on one study to test the tool and the consistency of the review approach. The tool was finalised after there was a high consistency between among all coders in their application of the codes to the selected study. After our team was confident that all coders were consistent in their decisions, the remaining studies awaiting data extraction were split between the reviewers (single screening). Instances where reviewers were unsure about a coding decision were resolved through conferral with the review team. Thematic coding was subsequently reviewed by senior reviewers, and revisions made to ensure consistency, during the process of reviewing coding during synthesis.

2.6 METHOD OF SYNTHESIS

We used a framework synthesis approach, and the conceptual framework described earlier (see Figure 1) was our a priori framework. As described in section 1, this framework was based on our team's prior knowledge on this topic through a literature review we completed on the topic of barriers to and facilitators of women's economic empowerment (Peters et al. 2016). The outcome of our current review is an emergent framework that evolved in the aggregation stage of our synthesis combined with our familiarisation with the specific literature on facilitators and barriers to women's participation in higher and growing productivity sectors, reflected in the a priori conceptual framework.

After selection of our a priori conceptual framework, we conducted our synthesis in the following specific stages:

Indexing

In this stage, we examined the evidence from the included 18 studies by (1) coding the findings of the studies, (2) exploring the studies for data addressing each theme in our a priori framework, and (3) aggregating data within new or emerging themes if the data in the included studies could not be accommodated by our a priori themes. More specifically:

1. Coding the findings of the studies into themes

- Our systematic analysis considered a study "finding" to include all the text labelled as "results" or "findings" in study reports.
- If we were unable to locate text labelled as "results" or "findings," the team further examined the study as a whole to critically appraise the contents of the study and used EPPI Reviewer to code as findings portions of text where the author provided clear analysis of the data.

2. Exploring the studies using the a priori framework

- Five researchers independently line by line coded each study finding in one study according to its meaning and content using a priori descriptive themes. We had an initial list of nine codes against which we extracted data from this study: access to credit and capital; access to land; behavioural biases of individuals (discrimination); social norms; technology; technical and business skills; transportation; violence; and other.
- We used the "other" category to capture pieces of text where coders were not able to identify an appropriate existing code for an emergent descriptive theme. Coders were asked to specifically note what descriptive theme(s) they saw emerging under any finding coded as "other."

3. Aggregating data within new or emerging themes

- Following the coding of the studies with the a priori themes described in the previous step, our team had a follow-up meeting where we discussed the new and emergent descriptive themes as a group. Organising the codes into descriptive themes entailed:

    1. Our reviewers examined the consistency and interpretation of the codes developed in step 2 to discuss whether further levels of analysis were needed.
    2. We examined the similarities and variations among codes to group them into a hierarchical tree structure in EPPI Reviewer.
    3. New codes were created to describe the groups or "tree layers" of initial codes, and coders revisited assigned articles to re-code any new themes.

- Following this process, we determined the 20 final descriptive themes against which we coded the 18 studies:

    - Gender norms (social norms about gender)
    - Violence and sexual harassment
    - Gender-related laws and regulations
    - Discrimination
    - Access to credit and capital

- Access to land
- Formal cooperatives
- Social and kinship networks
- Firm and organisation strategies
- External support (government or organisations)
- Technology
- Technology, business and management skills
- Non-gender-related macroeconomic factors
- Male employment patterns
- Environmental degradation
- Work-life conflict (including time burden)
- Physical demands and health needs
- Socioeconomic status of individuals
- Corruption
- Transportation

Charting

After completing the indexing steps described above by coding all the studies, we created summaries by tabulating this data under each theme within our emergent framework.

Interpretation

Next, we examined the charted data to interpret the descriptive themes and develop analytic themes. We developed our analytic themes by grouping together sets of descriptive themes for the purposes of facilitating discussion of the systematic review findings using a system of "interrogating the data" (Coffey and Atkinson 1996, Mason 2006). This involves breaking apart the data and recombining it to make sense of the information (Coffey and Atkinson 1996).

For example, the two codes/descriptive themes 'technology' and 'technical, business and management skills' addressed similar concepts related to new knowledge and productive capabilities, so we first discussed as separate themes, and then decided to group them together in our discussion after finding overarching linkages between them. Similarly, the three codes/descriptive themes of non-gender related macroeconomic factors (for example, fair trade laws), male employment patterns, and environmental degradation all had in common the fact that they operated at the macro level and did not directly target women, but nonetheless had disparate effects on women, so we decided to group them together. Seventeen of our descriptive themes/codes seemed to fit into six analytic themes, and these broader analytic themes helped us to revise our framework. The remaining three descriptive themes were grouped broadly as "other" themes that could not be easily grouped.

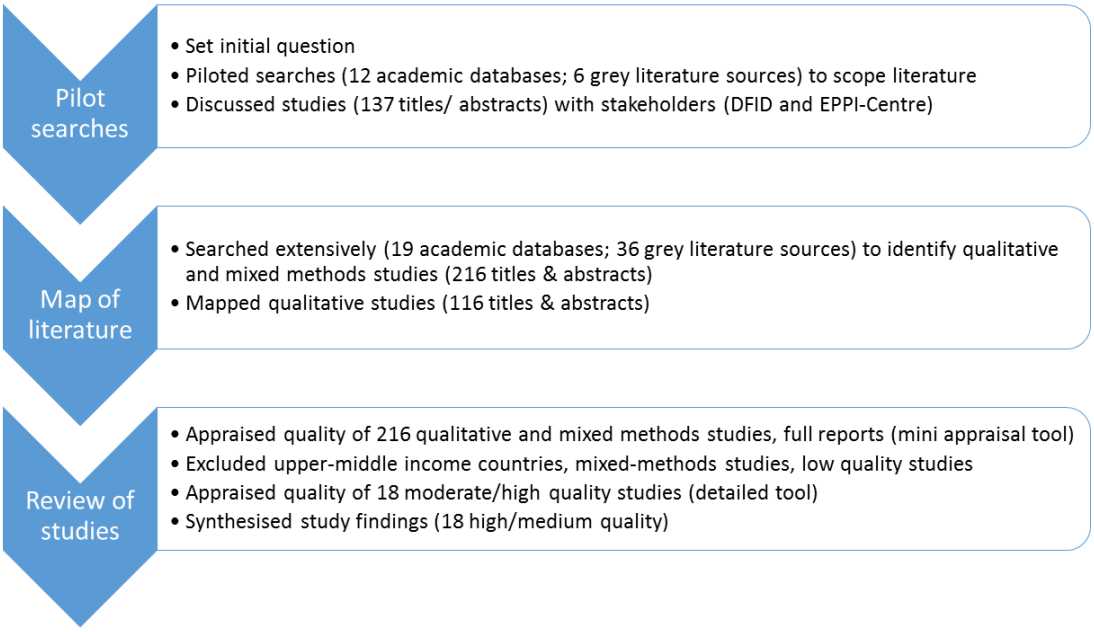
The revised conceptual framework was developed following the coding of all the studies, the examination of the resulting descriptive and analytical theme development, and iterative team discussions about how the themes relate together in constraining or effecting change in

women's economic empowerment. Section 3 details the results from our analysis, and section 4 presents our revised conceptual framework.

3 RESULTS

In this section, we describe the results of our systematic review. We first describe the results of our systematic search and the characteristics of the 18 studies reviewed in-depth (section 3.1), and we then present the findings of our appraisal and synthesis of the 18 studies (section 3.2). Our review process, from pilot searches to review of studies, is illustrated in Figure 3.

Figure 3: Flow of Studies from Pilot Searches to In-depth Review



3.1. RESULTS OF THE SYSTEMATIC SEARCH

As an initial step for our review, we piloted searches from a limited list of databases (12 academic and six grey literature) to confirm that a literature of useful and reliable studies would be identifiable. This pilot searching confirmed the value of reviewing qualitative research addressing barriers and facilitators of women's employment within the chosen sectors (see summary slides in Appendix 7).

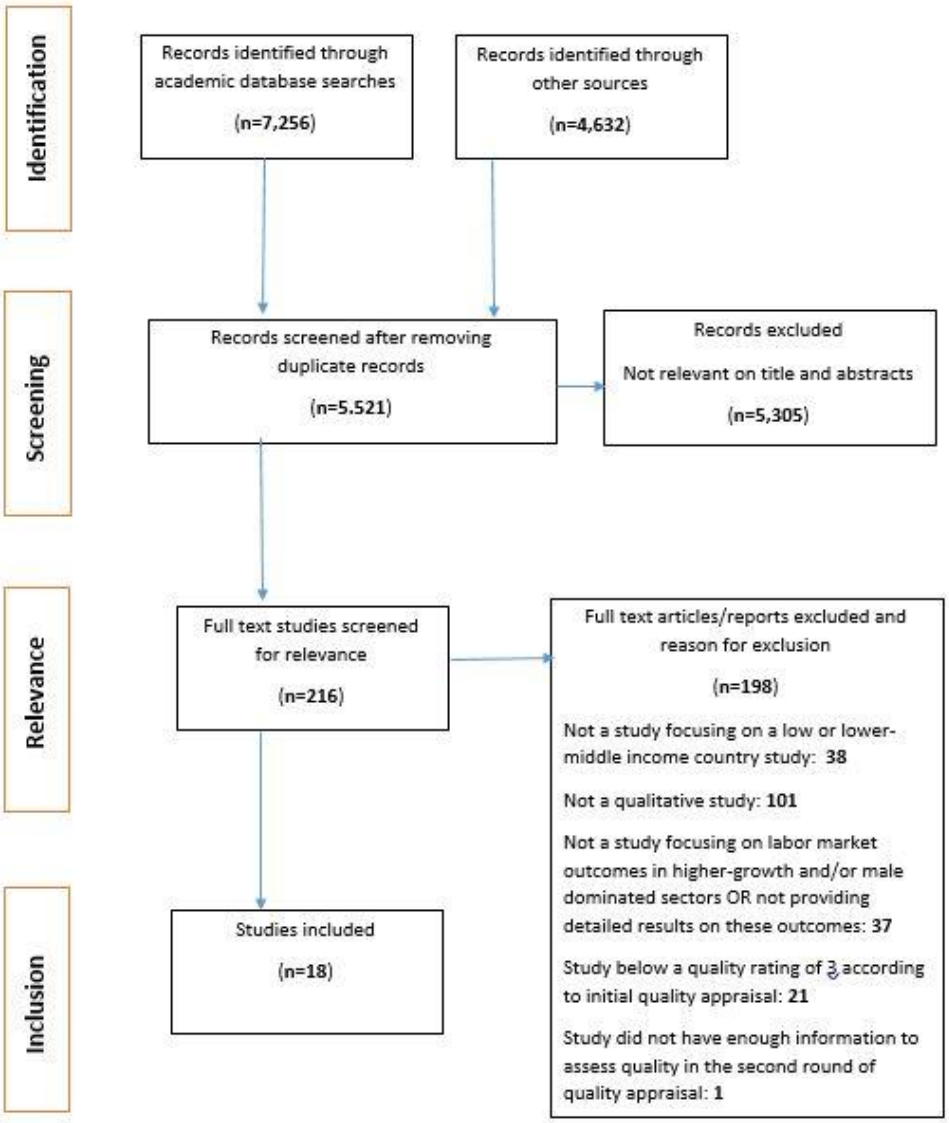
Following this pilot mapping exercise, we extended our search to include a broader set of 19 academic and 36 grey literature databases. We also refined our search terms (shown in Appendix 5), in consultation with experts at UCL, to more thoroughly address economic empowerment outcomes and experiences of interest to the review. This systematic search resulted in full text screening of 216 studies (using criteria described in section 2), of which 176

were excluded for not meeting inclusion criteria and 22 were excluded for not meeting quality criteria, resulting in our final 18 studies. This process is summarised in Figure 4 below and described in detail in at the end of Appendix 7.

At the scoping stage, we considered studies focused on low income, lower-middle income, or upper-middle income countries. We found that many studies focused on multiple countries, but the majority (n=117) focused on lower-middle income. These studies had employed either qualitative data analysis methods (116 abstracts; 54%) or mixed-method (100 abstracts; 46%). Examination of the titles and abstracts of the 116 qualitative studies alone revealed that this subset of literature was likely to offer research evidence that spanned countries at different levels of economic development, a range of employment sectors (albeit unevenly) and provide learning about a range of important barriers and facilitators to women's employment.

Our analysis of patterns in the socioeconomic context and employment sectors in this qualitative subset of the literature (see Appendix 7) showed this literature was likely to offer most learning about barriers and facilitators in countries at different levels of economic development and across employment sectors. Consequently, upon conferrals with experts at UCL and DfID, we narrowed our review to only studies with qualitative study designs to gain a rich and complex understanding about our research question.

Figure 4. Flow Chart Diagram of Search Results and Identification of Studies



3.1.1 TYPE OF INCLUDED STUDIES

Of the 18 studies included in our review, the majority were journal articles (n=14) followed by theses/dissertations (n=4). Many of the grey literature studies were mixed-methods and were excluded for this reason. The majority of studies were published between 2014 and 2017. Included studies, along with brief study descriptions, are shown below in Table 1 (see Appendix 10 for a more detailed summary of included studies).

Table 1. Summary of Included Studies

Author and Date	Study Aims	Study Countries	Study Methods *(Design and data collection methods)*
1. Afolabi 2015	This study examines the intersections of women's involvement in the commercialization of cash crop production and men's migration on gender relations at inter and intra household levels.	Nigeria	Ethnography; multi-case study; feminist research Interviews; focus groups; observations
2 Akiwumi 2011	This study examines the coping mechanisms and experiences of women farmers in a small mining community following the introduction of a mechanical cassava grater to increase their economic empowerment. .	Sierra Leone	Single case study Interviews
3 Akter et al. 2017	The study examines the nature and extent of gender equity in in Southeast Asian agriculture, drawing on data from four countries to analyse intra-regional heterogeneity in community-level women's empowerment.	Myanmar Thailand Indonesia Philippines	
4. Austin 2017	This study examines coffee cultivation in a rural coffee-producing region to provide insights into how the coffee economy relates to gender dynamics, physical health, deforestation, and economic conditions.	Uganda	Single case study Interviews; observations
5. Boateng et al. 2014	This study examines the benefits, constraints, and practices of mobile phone usage on micro-trading among women traders.	Nigeria	Multi- case study Interviews; observations; document collection
6. Chandra et al. 2017	This study examines the gendered vulnerabilities of smallholder farmers to climate change, including implications for livelihoods, assets, debt, and agricultural yields.	Philippines	Single case study Focus groups; surveys

Author and Date	Study Aims	Study Countries	Study Methods *(Design and data collection methods)*
7. Darkwah 2002	This study examines the socioeconomic lives of female traders to analyse the mechanisms that enable them to take advantage of opportunities and to minimize the constraints brought by trade liberalization policies.	Ghana Thailand	Multi-case study; community-based participatory research Interviews; observations
8. Elias 2010	This study examines the socio-political, physical, and ecological relationships of the international market shea butter projects, particularly differential experiences by gender, migrants, and local communities.	Burkina Faso	Single case study; ethnography Interviews; focus groups; observations
9. Fröcklin et al. 2014	This study examines differential roles and experiences of men and women in the invertebrate fishing industry to inform future regulation and conservation management.	Tanzania	Single case study Interviews; surveys
10. Jones et al. 2012	This study examines the experiences of women producers in collective enterprises linked to the Fair Trade movement to analyse the economic empowerment benefits of membership-based organizations for female producers.	Kenya Tanzania Uganda India Nepal Nicaragua Mexico	Multi-case study; action research Focus groups; case management/file reviews; workshops
11. Kelly et al. 2014	This study examines women's experiences in the context of artisanal and small-scale mining to analyse the processes needed for women to secure opportunities for long-term engagement in mining activities.	Dem. Rep. of the Congo	Single case study; grounded theory Interviews; focus groups
12. Koomson 2017	This study examines how the socioeconomic roles of women involved in small-scale mining produces economic opportunities and challenges for them.	Ghana	Ethnography Interviews; focus groups; surveys; observations; document collection

Author and Date	Study Aims	Study Countries	Study Methods *(Design and data collection methods)*
13. Lauwo 2018	This study analyses the intersection of corporate social responsibility in the transnational gold mining industry and women's experiences.	Tanzania	Multi-case study; ethnography; feminist research Interviews; focus groups
14. Manzanera-Ruiz et al. 2016	This study examines gender relations and patriarchal constraints to collective action in the context of cash crop production to analyse the implications of collective action for women's empowerment.	Tanzania	Single case study; ethnography Interviews; observations
15. Mutopo 2014	This study examines the extent to which negotiations and bargaining by women with the family, state, and traditional actors has proved to be useful in accessing land and associated livelihoods in the context of land reform efforts.	Zimbabwe	Single case study; ethnography Interviews; focus groups; observations
16. Sidibé et al. 2012	This study examines a community-level shea sector cooperative to analyse the role of women's cooperatives in providing access to markets and value chains as a development pathway.	Mali	Single case study Interviews; focus groups; observations; document collection
17. Ugwu et al. 2016	This study examines women traders' experiences managing intersecting work and non-work roles to achieve work-life balance in lower-middle income development contexts.	Nigeria	Phenomenology Interviews
18. Wrigley-Asante 2013	This study examines the specific commercial activities that are undertaken by women in cross-border trading, the coping strategies that they use to address the difficulties that confront them, the impact of women's trading activities on their lives, and how these are linked to their subjective understanding of poverty and well-being.	Ghana	Single case study Interviews

3.1.2 COUNTRY SETTING

Although the experiences of the women examined in these qualitative studies are not designed to be representative of any of the countries in which they reside, understanding some characteristics of these countries is nonetheless helpful in contextualising the information. Nine studies included low-income countries and 11 focused on lower-middle income countries. Three studies also included on upper-middle income countries in addition to low-income ones. Several studies included multiple countries.

The 18 included studies examined the experiences of women in 18 countries, however 16 studies focused on a single country within Africa, while one study focused exclusively on a mix of Asian countries, and one study included a mix of Asian, African and Latin American countries. Africa was the most researched continent (with all studies focused in the sub-Saharan region), followed by Asia (a mix of South Asia and East Asia) and Latin America. Some studies included multiple countries. In order of most to least researched, included studies focused on Ghana and Tanzania (n=4 each); Thailand, Uganda, and the Philippines (n=2 each); and Burkina Faso, Democratic Republic of the Congo, India, Indonesia, Kenya, Mali, Mexico, Myanmar, Nepal, Nicaragua, Sierra Leone and Zimbabwe (n=1 each).

The World Economic Forum provides a Global Gender Gap (GAP) index to measure the magnitude of gender-based disparities globally.[3] In this index, higher rates are better, with the 2017 global average value at 0.68. Among the 18 countries of focus for our included studies, 11 have lower levels of inequality than the global average, five have higher levels of inequaity, and two do not have GAP index scores available.[4] Appendix 10 provides additional information on country attributes by study. However, it is important to note that as a qualitative review of 18 studies, we are limited in our ability to draw causal inferences about differences in these attributes as they relate to women's economic empowerment.

3.1.3 POPULATION AND STUDY PARTICIPANTS

Seven of the 18 studies reviewed did not provide an indication of the marital status of the women participating. Six studies indicated that polygamy was prevalent in communities studied.

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[3] See https://www.weforum.org/reports/the-global-gender-gap-report-2017

[4] Countries better than average include Ghana, Indonesia, Kenya, Mexico, Myanmar, Nicaragua, Philippines, Tanzania, Thailand, Uganda, and Zimbabwe. Countries worse than average include Burkina Faso, India, Mali, Nepal, and Nigeria. Countries with no index score include Democratic Republic of the Congo and Sierra Leone.

Five studies characterised the study participants as mostly married or previously married (widowed, divorced or separated). Three studies included the perspectives of both married and unmarried women.

Among the 18 studies included in our final review, most focused on adults age 18 or older or reported as adults by the authors (n=12). Seven studies did not report disaggregated ages but focused broadly on adults. Three studies included people in conflict/migration settings (including research in Sierra Leone, the Philippines, Burkina Faso and the Democratic Republic of the Congo). Ten studies had more than 30 participants, three had 30 or fewer participants, and five did not clearly report the number of participants in each component of the methodology (but provided sufficient methodological detail to otherwise assess quality). Additional study characteristics are shown in Appendix 10.

3.1.4 EXPERIENCES, ROLES, AND OUTCOMES

The studies are characterised by understanding the roles and experiences of working women, most of whom are self-employed (n=16). One study examined women's experiences working for mining corporations, while another one examined women working in a variety of jobs in a mining town (some self-employed and some not). The women are engaged in a variety of different activities including agriculture (and associated production), trade and mining. Because commercialised or cash crop agriculture also generally requires the trade or selling of the products, the majority of studies (seven of ten) that focused on agriculture also discussed trade. Included studies generally did not make explicit distinctions between formal and informal employment, and often women were working in both formal and informal capacities. Consequently, we are not able to draw clear conclusions about this factor.

None of studies are direct evaluations of particular initiatives or interventions, but half (n=9) examine the experiences of women in relation to a particular policy instrument or public service activities including: trade liberalisation (Darkwah 2003); land reform (Mutopo 2011); corporate social responsibility (Lauwo 2018); cooperative participation and support (Akiwumi 2011, Elias 2010, Jones et al. 2012, Manzanera-Ruiz et al. 2016, Sidibé et al. 2012); producers' supports (for example, shea butter projects and mechanisation access; Akiwumi 2011, Elias 2010); and access to mobile phones (Boateng et al. 2014).

In all studies, the particular communities within countries are very poor with limited options for generating earnings. Some studies provide a comparative assessment of the experiences of women in relation to men (whereas some studies focus only on the experience of the women), and all those studies indicate more constraints and burdens, few economic opportunities, and often constrained benefits for women in relation to men. Some studies also examine women's economic empowerment in the context of ecological or climate concerns, and/or conflict settings (Akiwumi 2011, Chandra et al. 2017, Kelly et al. 2014).

The most common study outcomes in the final set of 18 included studies were wage employment (n=11) and business ownership/self-employment (n=12). Additional outcomes were upward job mobility (n=3), other economic empowerment (for example, control of resources, education) (n=10), and other empowerment (for example, health, well-being, gender relations) (n=9). Most studies included multiple outcomes. Although these studies report qualitatively on the outcomes of the women, their real value is their focus on the experiences and roles of the women situated in the complex contexts in which they live and work and the intersections of policy and interventions with those contexts.

3.1.5 SECTORS

While seven sectors were part of our inclusion and exclusion criteria in the mapping exercise stage, the final review included studies that fell into only three: commercial agriculture (including aquaculture) (n=11), trade (n=12) and mining (n=4).

Seven studies focused on multiple sectors where typically the women were involved in multiple parts of the supply chain, including growing, processing, and trading of the goods. The four studies focused on mining were in sub-Saharan African countries and were related to the mining of precious metals or minerals. All four studies focused only on trade (rather than trade plus other sectors) also were situated in sub-Saharan African countries, with one of those studies also examining trade experiences in one South Asian country. The remaining studies focused only on agriculture were related to smallholder farming, rice cultivation and fisheries.

3.1.6 STUDY DESIGN AND APPROACH

At the final review stage, many studies employed more than one approach. Case studies were by far the most common research approach, including both single case studies (n=10) and multiple case studies (n=7). Six studies used ethnographic designs, and two studies used a combination of multi-case study and ethnography grounded in feminist research. One study each used action research, community-based participatory research, phenomenology, and grounded theory.

3.1.7 DATA COLLECTION METHODS

The most common data collection methods used in the 18 studies included in our final review were interviews (n=15), focus groups (n=11) and observations (n=10). Four studies each used surveys and document collection, one used case management/case file review, and two used mapping of natural resources. Most studies used more than one form of data collection.

3.1.8 THEMES

During our systematic review, we refined our conceptual framework using framework synthesis (Gough et al. 2017). Through iterative rounds of coding and research team discussions (described in section 2.6), we identified six analytic themes, within which all but three of our descriptive themes could be classified. These analytic themes are:

1. Gender norms, culture, and laws;
2. Access to resources;
3. Networks and organisations;
4. Technology, skills and education;
5. Global macro factors (economic and non-economic); and
6. Unpaid care and women's time poverty.

The remaining three descriptive themes, mentioned by only a few studies, were grouped as "Other."

These analytic themes are reflected in our revised conceptual framework, presented in our discussion of findings (see section 4). A mapping of themes by study is shown in Appendix 13.

Most studies focused on more than one theme. As shown in Table 2, the most commonly identified barriers and facilitators identified in our thematic analysis were social norms, culture, and laws (n=15); access to resources (n=14); and networks and organisations (n=14). Additionally, 11 studies included themes related to technology, skills, and education; 12 included global macro factors (economic and non-economic); 11 included unpaid care and women's time poverty; and 9 included other themes.

Table 2. Themes included in the final review

Theme	Number of studies
Social norms, culture, and laws	**15**
Gender norms	13
Violence and sexual harassment	5
Gender-related laws and regulations	4
Discrimination	5
Access to resources	**14**
Access to credit and capital	13
Access to land	5
Networks and organisations	**14**
Formal cooperatives	12
Social and kinship networks	6
Firm and organisation strategies	2
External support (government or organisations)	2

Theme	Number of studies
Technology, skills, and education	**11**
Technology	7
Technical, business, and management skills	8
Global macro factors (economic and non-economic)	**12**
Non-gender-related macroeconomic factors	8
Male employment patterns	4
Environmental degradation	4
Unpaid care and women's time poverty	**11**
Work-life conflict including time burden	9
Physical demands and health needs	7
Other	**9**
Socioeconomic status of individuals	4
Corruption	5
Transportation	3

Note: Analytic themes are in bold text, and descriptive themes are unbolded text.

3.1.9 QUALITY AND RELEVANCE

All included papers were appraised for methodological quality and relevance before inclusion in the review, as described in section 2.4. Appendix 11 shows the final quality appraisal ratings and detailed results from the descriptive risk of bias assessment. The studies were evenly split between "high" quality studies with a score of 8 or greater (n=9) and "medium" quality studies with scores below 8 (n=9). "Low" quality studies were excluded.

As indicated in the appraisal tool in Appendix 6, quality appraisal included an assessment of whether the data collection and analyses were appropriately aligned with the questions asked and the findings noted. Because only medium and high-quality studies were included, the strength of the evidence provided in this report is strong. We support each finding with information about the studies contributing to it.

3.2 IN-DEPTH REVIEW AND SYNTHESIS

As discussed in section 2, our analysis uses a framework synthesis (Gough et al. 2017) to garner and aggregate evidence on a priori and emergent themes from the 18 studies included in the systematic review. The included studies tended to be narrower in scope than the studies included in the Peters et al. (2016) literature review from which the original framework was derived (for example, the qualitative studies in this review are generally focused on a single community and specific products, such as tomato and coffee farming in a small community with a cooperative). Many of the facilitators and barriers were similar across the two reviews, but the qualitative studies included in the current review provide greater depth and nuance about the context of women's lives.

Following the discussion of findings below, we present a modified framework that updates the barriers/facilitators. It also suggests processes for facilitators and barriers of women's economic empowerment that operate within the context of existing social norms about gender.

Strengths and Limitations

This systematic review provides insights into the experiences of working women living primarily in poor, rural communities. The qualitative approach of these studies, especially those that follow the daily lives of women over several months in an immersive environment (for example, ethnographies) provides insights into their daily challenges, including gender dynamics in families and communities and support structures designed to help them (for example, cooperatives). These studies also provide insights into the complexity of factors that may influence of the success of policy interventions to improve women's economic empowerment across families, communities, regions and types of employment.

The studies reflect deeply on the experiences of particular women engaging in particular activities, but they do not focus on differences among women of varying ages, marital statuses, or education levels and often do not compare explicit outcomes for men and women. It is therefore not possible to discuss differing experiences in this way. Instead, we focus on examining findings across studies based on the country and region-level characteristics, and on the sectors in which the women are working. We report on the distribution of the evidence across regions: sub-Saharan Africa, East Asia, South Asia, and Latin America.

We also report on a few country-level characteristics to help readers contextualise the information:

- World Bank Income Classification Level (World Bank 2017) (low income (LIC) and middle income (MIC)
- UN Fertility Level Classification (UN 2013) (high, declining, aging society)
- World Economic Forum Global Gender Gap rating ("better than average" indicates above-average score indicating greater parity)

We provide these country-level characteristics to provide information on the context of the research reviewed. However, given that this is a qualitative systematic review of just 18 articles, and the fact that the vast majority of the evidence relates to countries in sub-Saharan Africa, there is only so much inference we can draw regarding subgroup variation. Where conclusions can be drawn regarding such variation, we do so under each theme.

In our synthesis, we observe that findings either repeat across studies or do not, and we document the strength of evidence about any consistency. However, not all studies were seeking to examine or highlight the same factors, so we do not know if some factors appeared less often because they actually occurred less often or because they were less explored. For

example, most studies do not discuss whether the study participants have access to electricity or water systems; certainly, some opportunities for women are facilitated or hampered by these factors. Studies focused on agriculture are more likely to reflect on this point. Of the 11 studies focused on the agricultural sector, four note a lack of a water system (for example, reliance on rivers or rain) and four note either irregular or no power in at least some communities in their study. Only one of the four mining sector studies notes the community has no electricity and no running water; the other three studies do not comment either way.

Finally, although we discuss facilitators and barriers within specific framework categories, it is the connections between them and additive effects that likely make the most difference in supporting or suppressing women's empowerment. The following observation from Fröcklin (2014) demonstrates how a convergence of challenges faced by women can yield substantial differences in the earning power of men and women:

> *The in-depth interview results showed that differences in market access and diverse customers were strongly related to men's greater mobility, but also to ''free time'' that could be spent on establishing important contacts. These factors resulted in income differentials; the male respondents reported a daily income more than five times that of the females.* (Fröcklin 2014)

The analytic themes are discussed below, including the nature of the themes and the evidence associated with them, as well as subgroup analysis at the region, country and sector levels. A summary table of themes in each study is shown in Appendix 12. Study numbers listed in the tables below align with this appendix as well as Table 1 above.

3.2.1 GENDER NORMS, CULTURE AND LAWS

Evidence about the importance of gender norms, culture and laws was provided by 15 studies: eight high-quality (1,3,4,6,7,8,14,18) and seven medium-quality (2,9,10,11,12,13,15). The studies include both low income and middle income countries, and they explore the commercial agriculture, trade and mining industries.

Gender norms, culture and laws define social acceptability of women's participation in particular sectors or job functions, set guidelines for women's ownership rights, create expectations about the acceptability of violence toward and discrimination against women, and can either serve as facilitators of greater safety and economic empowerment, or can create constraints in which other interventions operate.

The 15 studies included in this analytic theme focused on the barriers associated with gender norms, culture and laws. Eleven of these studies were conducted in sub-Saharan Africa, where patrilineal land rights, gendered work roles situated in religious and tribal customs, and the perception of women and their earnings as property of their husbands in rural areas are

documented. In contrast, one of the studies of East Asian countries provides a comparative perspective of greater equality of men and women in sharing the work and sharing the resources, despite the similarities of working in poor, rural conditions. More detailed information about themes and the supporting evidence may be found in Table 3 and Appendix 13.

Table 3. Analytic Theme Summary Description for Gender Norms, Culture, and Laws (15 studies)

Theme (studies)[a]	Description
Gender Norms (n=13); high-quality: 1,3,4,6,7,8,13; medium-quality: 2,8,10,11,12,15)	Description: Social acceptability of and perceptions of appropriate work roles of women; influences noted include biological differences, religious beliefs and tribal governance prescriptions; documented in agriculture, trade, mining. Often limits the ability of women to participate in high-productivity sectors. Regions[1]: Sub-Saharan Africa (n=11), East Asia (n=3), South Asia (n=1), Latin America (n=1) Countries: Burkina Faso (n=1), Dem. Rep. of the Congo (n=1), Ghana (n=3), India (n=1), Indonesia (n=1), Kenya (n=1), Mexico (n=1), Myanmar (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=1), Philippines (n=2), Sierra Leone (n=1), Tanzania (n=3), Thailand (n=2), Uganda (n=2), Zimbabwe (n=1)
Violence and Sexual Harassment (n=5; high-quality: 1,4,18; medium-quality: 11, 13)	Description: Characterised as men, including husbands, injuring and/or harassing women as they engage in their paid work or in the decisions about paid work earnings; documented in agriculture, trade, mining. Can make working in particular sectors more dangerous for women. Regions[1]: Sub-Saharan Africa (n=5) Countries: Dem. Rep. of the Congo (n=1), Ghana (n=1), Nigeria (n=1), Tanzania (n=1), Uganda (n=1)
Gender-Related Laws and Regulations (n=4; medium-quality: 11,12,13,15)	Description: Laws, regulations, enforcement of laws and regulations, knowledge of laws and regulations; documented in agriculture, trade, mining. If enforced, can

Theme (studies)[a]	Description
	provide work place protections for women and access to resources such as land. Regions[1]: Sub-Saharan Africa (n=4) Countries: Dem. Rep. of the Congo (n=1), Ghana (n=1), Tanzania (n=1), Zimbabwe (n=1)
Discrimination (n=5; high-quality: 1,7,14; medium-quality: 11,13)	Description: Individual and institutional level discrimination in dealings with working women; documented in agriculture, trade, mining. Can reduce access to jobs and resources and undermine the enforcement of laws intended to protect women. Regions[1]: Sub-Saharan Africa (n=5), East Asia (n=1) Countries: Dem. Rep. of the Congo (n=1), Ghana (n=1), Nigeria (n=1), Tanzania (n=2), Thailand (n=1)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Gender Norms

Gender norms were explicitly referenced in 13 studies. They were noted as a restriction on women's opportunities in 12 studies, spread across sub-Saharan Africa, South Asia, and Latin America. One study of several of East Asian countries, on the other hand, specifically noted that gender norms are less likely to serve as a barrier to gender equality there (Akter et al. 2017).

Gender norms are shaped by religion, ethnicity, tribe and country, and this concept captures both the socially acceptable roles for men and women and the power relationships between them. Also captured here are the within-gender norms that differ by age and order of marriage (in polygamous family units). In addition to the direct effect of the gender norms, however, gender norms are also observed to have an indirect effect — serving as a lens through which everything else is filtered. The gender norms established by religious beliefs, tribal governance structures, and the history of communities tends to emerge as an underlying factor in nearly all the other barriers (or facilitators) that women experience.

In the following sections, we discuss how gender norms restrict women's opportunities in a number of dimensions. We explore the heterogeneity in these norms across countries and

across sectors. We also describe cases in which norms are changing. We then discuss the other themes included within the broader theme of social norms, culture and laws.

Gender norm constraints. The primary way gender norms affect women's economic empowerment is that they influence social acceptability and perceptions about the appropriate roles that men and women should play in society, the economic sphere and at home. One narrative relates to differences in the roles women and men undertake at home and in the workforce due to differences in biology (Afolabi 2015; Akiwumi 2011; Lauwo 2018). Examples in the agricultural sector were related by Afolabi (2015) studying women in Nigeria, who reported that climbing trees was believed to be the purview of men, while women were believed to be better at cleaning, which is related to women's work in the home. Furthermore, the roles that men generally played were viewed as being higher skilled and more valuable, which reflects the differential power relationship between men and women:

> *A gender disparity in wages largely draws on simple but gendered narratives around skill, to justify women lower wages, often linked to naturalizing discourses around biological roles e.g. 'women are better at cleaning'. These views are also held by some women farmers who hold that women's labour is not as demanding as that of men. They see men climbing trees as a technical skill that requires training and expertise while that of women is viewed as part of their normal life activities which they do not have to learn a new skill for.* (Afolabi 2015)

Similar norms defined gender roles in mining, where men were viewed as being better at jobs such as breaking, hauling and heaving rocks that required physical strength (Lauwo 2016). Many gender norms, however, do not have any basis in biological gender differences. For example, several of the studies described a belief that men were better at technology:

> *Any technical equipment is always associated with masculinity. The two grinding machines that are owned by women are being operated by men even though women can operate them. It is a general view that the machines will last longer when men operate them because men's usage of such machinery is deemed normal.* (Afolabi 2015)

The belief about technology can also help to explain why men continue to work in jobs like mining, even when new technologies make any gender differences in physical strength less relevant (Lauwo 2016). These perceived differences tend to relegate women to jobs that are deemed less valuable and thus pay lower wages, as discussed by Koomson (2017) regarding Talensi women in Ghana:

> *A kind of division of labour emerges out of the restrictions that limit women's jobs. The limitation creates boundaries between men and women's work. The restrictions placed on women to prevent them from engaging in certain roles confine them to jobs that are usually not attractive to men. This form of division of labour does not produce*

> *specialization and work efficiency. Rather, it emerges from normative restrictions placed on what Talensi women can and cannot do.* (Koomson 2017)

Social and religious factors can also play a role in determining gender norms. Koomson (2017) describes a gender norm among the Talensi that restricts married women from working closely with men who are not their relatives. This norm makes it difficult for women to work in the mines, but not in farming:

> *Mining pits are considered "hidden" and "secluded," so they are not conducive environments for men and women to work together. Talensi men and women regularly work together in open farm fields, but not in areas that are out of the public view.* (Koomson 2017)

Some religious beliefs put further restrictions on Talensi women working in the mines underground:

> *In the Talensi industry, the miners also believe that menstruation keeps away "good spirits," and this contributes to the idea that women cannot work underground.* (Koomson 2017)

Another example of the importance of religious beliefs is reported by Akter et al. (2017), who suggest that religious differences across four East Asian countries (Myanmar, Thailand, Indonesia and the Philippines) may account for some of the heterogeneity across those countries:

> *Indonesia… has a large Muslim population where religious restrictions impede women's mobility outside the house and prohibit communication between the sexes… This could be one of the reasons for women's lack of access to [agricultural] extension service[5] in Indonesia, where the extension staff are predominantly male.* (Akter et al. 2017)

It is clear from the discussions across many papers that women often buy in to these narratives. For example, Akiwumi (2011) states:

> *Even in their quest for social and economic empowerment, women respected the traditional complementarity of gender social relations honouring defined gender roles in farm work.* (Akiwumi 2011)

Differences by country and region. A number of the countries represented in this systematic review, primarily those in Africa, have a patrilineal organisation that puts women in a secondary

[5] Agricultural extension services exist in many countries, including the United States. They provide technical assistance and training to farmers on land use, crop selection and various agricultural methods.

role and limits women's access to social networks, credit, land and other supports. For example, in Ghana *'patrilineality shapes not only the social organization of the household, but it also shapes the organization of work economies and other spheres'* (Koomson 2017). Similarly, in Zimbabwe women's ability to own and work their own land is limited by the belief that *'when married you do farm your husband's land and you cannot have your own separate fields until after a number of years have passed'* (Mutopo 2011). In Uganda women do not own the proceeds of the coffee that they grow, because only men are able to sell the coffee. As one male respondent commented: '*The reason the man holds the money is because the coffee is his. The man owns the coffee'* (study participant, Austin 2017).

Even when women become successful in cash crop farming or trading, gender roles still provide barriers. For example, credit is more difficult for Yekemi women in Nigeria because of gender constructs, '*which can place women in a more precarious position in the male world of cash crop production*' (Afolabi 2015). Similarly, these women are excluded from male networks, which makes it difficult to get information about market prices. Afolabi (2015) summarises the findings in this way:

> *Women are taking control of cash crops to a large extent. However, within that we can still see some of the traditional gender dynamics in the differential gender pay rates, gendered notions of skill, the bargaining, the gendering of social networks, male domination of the credit facilities and access to extension services.* (Afolabi 2015)

These findings, however, are not universal. Akter et al. (2017) describe women's roles in agriculture in four East Asian countries (Myanmar, Thailand, Indonesia and the Philippines) and suggest that the small-scale rice-based farming systems in these countries is a context that facilitated greater equality between women and men and increased women's control over resources. Thailand and the Philippines, both of which are matrilineal societies, had the highest level of women's involvement in decision-making. Akter et al. (2017) describe the gender norms in these Asian countries as reflecting "mutual asset ownership," which contrasts with the predominant mode of asset assignment depicted in the African countries where women's and men's earnings and assets are separate and designated for different purposes.

Chandra et al. (2017), in contrast, observe that conflict-prone areas and extreme weather events in the Philippines provide a counterweight to the gender role freedoms that Akter and colleagues found. Women in that study experienced some of the reduced gender role options that were more similar to those experienced in the African countries.

Sector differences. Whereas discussion of gender role differences was prominent in describing agricultural and mining economic opportunities, it was less prominent in discussion of trade activities. The studies in the systematic review focused on trade covered many different types of trade, but concentrated their analyses on women rather than creating a comparative analysis of men and women. One medium-quality (Boateng et al. 2014) and three high-quality studies

(Darkwah 2002, Ugwu et al. 2016 and Wrigley-Asante 2013) of women engaged in wholesale trade rarely mentioned differences in gender roles. The absence of information here suggests a need for more developed research in these areas.

Findings from two high-quality studies, Darkwah (2003) and Ugwu et al. (2016), suggest that many women engaging in trade have families that support them pursuing more economic opportunity. The women studied by Darkwah (2003) engaged in transnational trade and tended to have more education and business acumen. Because two-thirds of these women had mothers who were also traders, they were able to more easily develop the necessary skills and business connections from working with their mothers. The majority of these women received some start up money from their families. In the case of Ugwu et al. (2016), the women are described as small scale or petty traders. Despite the different scale of their enterprise, these women also received support from their husbands and extended family, in the form of assistance with child-rearing and other home duties.

Changes in gender norms. The literature we reviewed identified a number of cases where gender norms were changing. This sometimes happened when some external economic event altered the opportunities that were available for men, which created the necessity for women to take on roles that had previously been reserved for men. By taking on those roles, women challenged the prevailing gender norms. One example is described by Afolabi (2015), a high-quality study. In Nigeria, men living in rural areas moved to the cities to take advantage of economic opportunities. The women were left behind, and they took over the farming role:

> *Male migration out of Yekemi has been a key factor in enabling women to move into cash crop farming. This not only impacts on the gendered organization of farming in the community, but also on divisions of labour and power within households and the wider community. Migration in and out of Yekemi and the changed economic status of women cash crop farmers, is facilitating a transformation in patriarchal relations.* (Afolabi 2015)

Similarly, Manzanera-Ruiz et al. (2016), another high-quality study, describe how the ability of women in northern Tanzania to participate in decisions increased after they were able to generate their own income:

> *Mama Amina, a participant in a women's agricultural group, said that women are now able to influence the decisions traditionally taken by men. When asked if this was her case, she replied yes, she influenced her husband in the construction of a new home, to which she also contributed financially.* (study participant, Manzanera-Ruiz et al. 2016)

This suggests the idea of a feedback loop in that strategies that increase women's ability to participate in the labour market and earn income can change gender relations, thus enhancing women's economic empowerment and subsequently changing gender norms even more. We reflect and discuss this further in the revised conceptual framework.

Violence and Sexual Harassment

This theme was discussed by three high-quality (Afolabi 2015, Austin 2017, and Wrigley-Asante 2013) and two medium-quality studies (Kelly et al. 2014 and Lauwo 2018). Violence can make certain types of work more dangerous for women, and sexual harassment is sometimes manifested in requiring sexual favours in return for the possibility of economic advancement.

Social norms are sometimes used to justify violence towards women. Women are particularly vulnerable in mining camps, which are dominated by males:

> *In a focus group with young miners, one man explained: "How can we fight rape? It is a personal decision. You [a woman] must protect yourself, if you don't expose yourself in front of a man they cannot rape you… Here there is more sexual violence because there are rebels up high in the mountains, that is why it is here. But the real reason that there is rape here is because the women expose themselves and comport themselves in a certain way".* (study participant, Kelly et al. 2014)

Another narrative discussed by four of these studies (Kelly et al, 2014 and Lauwo 2018 in the mining sector and Mutopo 2011 and Wrigley-Asante 2013 in the trade sector) is sexual harassment in the workplace that represents a 'link between economic and sexual exploitation' (Kelly et al. 2014). For example, Lauwo (2018) says:

> *Sexual harassment was reported to be a major problem. As one participant sensitively mentioned: ''it is difficult sometimes to say no when approached by a male supervisor, as that can either make you lose your job or even denied a promotion".* (study participant, Lauwo 2018)

Similarly, in the trade sector, Mutopo (2011) describes the fear of violence and sexual harassment this way:

> *The women all feared South African immigration officials. They were subjected to body searching and verbal abuse, violations of their right to free movement… Because they wanted to go and sell their produce, however, the women could not complain as they feared being sent back to Zimbabwe.* (Mutopo 2011)

The travel associated with certain kinds of trading activities also led to another type of risk of violence, as described by Wrigley-Asante (2013):

> *The fear of being attacked by armed robbers because of the relatively large amounts of cash women traders are known to carry was an issue for these women. Most women saw this vulnerability as an inherent risk of their trade and hoped the government would do something to improve security.* (Wrigley-Asante 2013)

Two studies (Afolabi 2015 and Austin 2017) discussed the issue of domestic violence. Afolabi (2015) describes a situation where many of the men have migrated to the cities and the women are left to do the farming. Afolabi (2015) asserts that male migration is associated with a reduction in household conflict:

> *There is no violence or conflict because everybody is busy with their own activities and that has actually reduced any misunderstanding in the house, and especially when the man is not around there is no body to quarrel with.* (study participant, Afolabi 2015)

In contrast, Austin (2017) describes a situation when both husbands and wives are involved in the coffee business. The women do the hard work of growing the coffee, but the men have control over the money, because they are the ones who sell the coffee. Conflict arises when a man gives the money to one of his other wives:

> *When the man sells the coffee, he might take it [the money] to a second wife, who does not cultivate the coffee. We would fight. I got hit. Many people fight because of coffee. Most times the men want to beat up their wives if they complain about him using the money to buy alcohol or cheat with other women.* (study participant, Austin 2017)

Gender-Related Laws and Regulations

This theme is discussed by four studies (Kelly et al. 2014, Koomson 2017, Lauwo 2018, and Mutopo 2011) all of which are medium-quality. The primary narrative from the four studies is that either laws to protect women from discrimination or lack of access to resources do not exist or existing laws are not enforced, which serves as barrier to entry or advancement for women. Kelly et al. (2014) find that laws regarding women's rights in mining work are not enforced, in part, because there are few women in high positions in mining and because women do not know their rights:

> *A lack of female representation in decision-making bodies ensures that women remain ignorant of national laws and incapable of influencing current practices to better their situations.* (Kelly et al. 2014)

Similarly, Lauwo (2018) asserts:

> *Despite the mining companies' claims to be complying with local rules and regulations and maintaining a safe and healthy working environment, no regular monitoring on the part of the government has been done to substantiate the companies' claims about compliance.* (Lauwo 2018)

Another reason for noncompliance with existing laws, as discussed by Koomson (2017) is gender norms:

> *Despite legislation on gender equity, customary norms continue to limit rural women's ownership and control of land.* (Koomson 2017)

Discrimination

Discrimination based on gender is an overt, explicit manifestation of social norms about gender. This theme is discussed in three high-quality studies (Afolabi 2015, Darkwah 2002, and Manzanera-Ruiz et al. 2016) and two medium-quality studies (Kelly et al. 2014 and Lauwo 2018). The dominant theme relating to discrimination is that of powerful and entrenched interests (for example, men) exploiting weak and marginalised populations (for example, women) by preventing them from working in higher productivity sectors.[6] Manzanera-Ruiz et al. (2016) state:

> *The 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, first on the part of the colonial regimes, then in rural development policies during the socialist period, and later in market forces*. (Manzanera-Ruiz et al. 2016)

Similar statements are made for the mining sector (Kelly et al. 2014 and Lauwo 2018) relating to the lack of job security and promotion, in the trade sector in terms of the ability to bargain and access to credit (Afolabi 2015), and in the agricultural sector in terms of access to technology (Afolabi 2015).

Summary

Gender norms, culture and laws provide the primary guidance for people's behaviour in societies. Collectively, these studies document the influences of biology, religion, spirituality, ethnicity, tribe, patrilineal and matrilineal inheritance traditions, and other country-specific characteristics (including policies), in shaping the gender norms, cultures and laws that are pervasive in the lives of women. The studies also reflect on the gendered constraints these norms and culture place on access to information and networks (particularly when women are not allowed to interact with men), occupational sectors or positions (associated biologically or spiritually with men), asset assignment (for example, patrilineal, matrilineal, shared or individual) and accepted violence toward or harassment of women.

Studies discussing the gendered constraints on certain occupations and sectors frequently point out the effects of these constraints on the earning potential of the women – the positions the

[6] This theme is closely related to the concept of gender power relations discussed above as part of the gender norms theme.

men occupy tend to earn higher wages than those occupied by the women or are the positions that allow for earning of money. For example, in some cases women engage in the growing of the crops but the men are designated to sell them; selling the crops gives the men ownership of the crops, receipt of the money, and agency over how the money is spent.

To what part of the family the money returns is complicated in some communities by polygamous family units where one wife may engage in the labour to earn the money, but a husband gives it to another wife. Some studies point out that asset assignment in relationships also means that the money that the wife earns is designated to pay for certain household needs – particularly the needs of children and education – while the husband's money is for him to do what he wants. This is countered by communities where mutual asset assignment is predominant where the husbands and wives work together to earn the money, and they share in proceeds such as described in Akter et al. (2017). Thus, these types of social norms and traditions related to gender constrain the benefits to women of earning higher wages or advancing in productive fields; the gains from advancing economically do not always accrue to them thus thwarting or muting economic empowerment for women.

Studies point to laws, changes in migration patterns, and extreme climate events as sometimes mitigating the norms and culture, both in ways that benefit women and and those that do not. Laws designed to mitigate norms and culture are not always effective in doing so; the studies surmise this is the case because of weak enforcement, lack of knowledge about the laws, and the small numbers of women engaging in activities who could assert their rights for enforcement.

3.2.2 ACCESS TO RESOURCES

Evidence about the importance of access to resources was provided by 14 studies: 7 high-quality (1,3,4,7,8,12,18) and 7 medium-quality (2,5,9,10,14,15,16). The studies include both low income and middle income countries, and they explore the commercial agriculture, trade and mining industries.

Access to resources such as credit, capital and land are discussed as impediments to women earning more, deploying their time more efficiently (for example, through equipment or technology that saves time), growing their businesses, negotiating prices more effectively (for example, by supporting cash flow that enables holding off for better prices or solutions for selling to a wider audience), and by extension, advancing their economic empowerment. More detailed information about themes and the supporting evidence may be found in Table 4 and Appendix 13.

Table 4. Analytic Theme Summary Description for Access to Resources (14 studies)

Theme (studies)	Description
Access to credit and capital (n=10); high-quality: 1,3,4,7,8,12; medium-quality: 2,9,10,14)	Description: Access to credit and capital are linked concepts, but sometimes women may need access to credit that does not involve the purchase of capital; barriers to credit and capital occur institutionally whereby some banks refuse to interact with women, in rural areas where there are no official banks, or in other avenues for borrowing funds or purchasing capital that are only available to men; documented in agriculture, trade, mining. Access to credit and capital enables women to be more productive and enhances their earnings potential. Regions[1]: Sub-Saharan Africa (n=12), East Asia (n=2), South Asia (n=1), Latin America (n=1) Countries: Burkina Faso (n=1), Ghana (n=4), India (n=1), Indonesia (n=1), Kenya (n=1), Mali (n=1), Mexico (n=1), Myanmar (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=2), Philippines (n=1), Sierra Leone (n=1), Tanzania (n=3), Thailand (n=2), Uganda (n=2)
Access to land (n=5; high-quality: 1,3,12,15; medium-quality: 14)	Description: Land ownership barriers include laws forbidding women's ownership (which are documented as changing in some places), tribal traditions of communal ownership, patrilineal traditions of male ownership, migrant vs. indigenous people's rights, government assignment of preferred lands to corporations (e.g. mining companies). Access to land also includes the power to determine how the land is used which may be separate from ownership rights; documented in agriculture and mining. Access to land enables women to participate in these higher-productivity sectors and obtain the benefits from their work. Regions[1]: Sub-Saharan Africa (n=4), East Asia (n=1) Ghana (n=1), Indonesia (n=1), Myanmar (n=1), Nigeria (n=1), Philippines (n=1), Tanzania (n=1), Thailand (n=1), Zimbabwe (n=1)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Restrictions on access to credit, capital or land were noted as impeding women's opportunities in 14 of our 18 studies. Agriculture requires access to land, but access to credit and capital can also support more efficiencies in agricultural planting and harvesting (depending on the crop). It can also support more efficiencies and improve quality of agricultural products (for example, coffee requires hulling and drying; shea butter requires processing of kernels; gari production requires cassava grating), smooth out irregular earning patterns, and facilitate purchasing and planting of higher yield plant varieties.

Land ownership is also a contested issue in mining communities both from the perspective that resource-rich lands may be taken from indigenous peoples and given to mining corporations, and also that women may have land claim ownership rights for their own small mines, but those laws are not always enforced. Trade by itself does not require land, but since commercial agriculture is linked with trade, land is by extension important to those activities. Trade, especially growing a business or negotiating the best prices, is facilitated by access to credit. We discuss issues of access and barriers to land separately from credit and capital below.

Access to land is necessary for women to be able to participate in commercial agriculture, which, as described above, increases their economic empowerment. Afolabi (2015) argues: *'there have been shifts in the economic power and change of status of women due to their access to farm land and the opportunity to be farm owners.'* Land can be obtained through inheritance, purchase or rental of farm land.

Another way to gain access to land, illustrated by one of studies, is through collective negotiation and bargaining. Mutopo (2011) reflected based on research on commercial agriculture in Zimbabwe:

> *Social capital emerged as a prime factor that enabled women to acquire land at Merrivale in the form of networks based on kith and kin, church or women's clubs, where women would encourage each other to try and access land from these and various other institutions dealing with land reform issues. Social networks created by the women led to the building up of livelihood networks that led to land acquisition in the village. Social relationships relevant to land such as group associations and networks are an important conduit for realization of women's land rights.* (Mutopo 2011)

Barriers to access to land. As described above, one of the most pervasive barriers to land ownership is related to gender norms. This finding is discussed in three high-quality and two medium-quality studies (Afolabi 2015, Akter et al. 2017, Koomson 2017, Manzanera-Ruiz et al.

2016, Mutopo 2011). Mutopo (2011) describes land access in the Mwenzi District of Zimbabwe as follows:

> *Access to land for most women involves them being in some form of relationship tied to men. This could either be a husband or brother… the problem is our names do not even appear on the offer letters for the bigger portions of the land.* (Mutopo 2011)

This is also true in the mining sector in Ghana as Koomson (2017) describes:

> *Gender differences in roles and practices in Talensi households create unequal access to land claims, mining pits, and other resources in the small-scale gold mining industry. In the Talensi district, miners confirmed that land ownership is vested in the Tendanaas or "the earth priests," who are only men and oversee the land that belongs to the lineages.* (Koomson 2017)

Manzanera-Ruiz et al. (2016) discuss how the elimination of legal barriers to land in Tanzania does not always change practice:

> *Regardless of the fact that the liberalization of the economy gave women access to land property through purchase (land becoming a marketable commodity), women continue to depend on borrowed land.* (Manzanera-Ruiz et al. 2016)

The studies also emphasised the distinction between ownership and decision-making power over how the land is used. However, the way in which this distinction operated differed across the studies, and specifically by location. As an example of the patriarchal norms in many African countries, a woman in the Mwenzi district of Zimbabwe said:

> *The only land that we have as ours are the water gardens, but men still control their use.* (study participant, Mutopo 2011)

In contrast, in the East Asian countries studied by Akter et al. (2017), women were almost always involved in the decision-making regardless of legal ownership. For example:

> *A similar tradition was observed in the Philippines, where in most cases land is formally owned by men but women have joint decision-making power over land utilization.* (Akter et al. 2017)

Another important barrier is related to the structure of ownership – for example, whether land is owned by individuals or whether land is communally owned by the tribe or village or whether government owns the land. Akiwumi (2011) reports that transnational mining interests have led the federal government to keep the rights and ownership over the land that contains minerals, rather than previous laws and customs that gave ownership to tribal authorities. Similarly, Koomson (2017) says:

> *One major challenge women have to deal with is that some have lost their farmland for crop production to mining when the government of Ghana demarcated farmland and converted the land to gold production.* (Koomson 2017)

It is not only access to land that is important, but access to higher quality land. Several of the papers mentioned the issue of global mining corporations or government taking over land that had been used to farm, thus leaving women only the marginal land or the marginal fishing areas. Koomson (2017) reports that:

> *Due to the mining activities, farmland closer to the local communities has become scarce and most of the younger farmers are leaving their local communities to take up mining jobs. Farmers face issues of land fragmentation, poor soil, denial of the use of land.* (Koomson 2017)

Access to water is essential for farming. Manzanera-Ruiz et al. (2016) report that most of the land near irrigation sources belongs to men, leaving only land that is further away from irrigation sources for women.This additional effort needed to irrigate the land reduces the economic return to farming and makes women worse off by increasing their time burden.

Access to credit and capital. Credit is also essential for economic success in farming, because of the need to purchase seed and fertiliser before money from selling the crops comes in. Afolababi (2015) comments: *'This ability to borrow money from produce buyers acts as an encouragement for women to participate in cash crop farming in Yekemi.'* Access to credit is also critical for the trading sector to purchase the items to sell. Wrigley-Asante (2013) also reported that '*the lack of access to credit was particularly challenging for the relatively new entrants to the market-place.'*

As with land, access to credit is affected by gender norms. Credit can be an important facilitator of women's economic empowerment, but even when access is available for women, they may face more difficult terms enforced by creditors. Afolabi (2015) reports that creditors treat men and women differently:

> *Creditors dictate their price at the end of the season for women who borrow from them, while according to Philip, a male cocoa farmer, men always try to reach an agreement with the creditors on the method of payment. In most cases, as Tosin, a female cocoa and palm oil farmer commented during the focus group discussion, creditors enforce their terms on women, which is one of the major ordeals women are facing in the business.* (Afolabi 2015)

Afolabi (2015) suggests that normative gender constructs may lead to a lack of credit, because there is a greater uncertainty in outcomes when women are doing what has previously been considered men's work. Access to credit in East Asia is not as difficult for women. As with the

case of land access, Akter et al.'s (2017) study of four East Asian countries finds that decisions about credit are made jointly by men and women.

Along with difficulties in obtaining credit, access to capital may be limited because of the expense of that capital. Fröcklin et al. (2014), in a study of Tanzania's Chwaka Bay, point to the constraints for women's earning potential in fishing because they lack boats whereas nearly all the men have their own boats. Boats allow men to gather more and different species of sea creatures and to do so more efficiently. Similarly, Manzanera-Ruiz et al. (2016) describe the large investment needed for tomato cultivation and point out:

> *Many women cannot afford this investment on their own because the basic capital for investment puts pressure on household maintenance budgets, largely the reserve of women.* (Manzanera-Ruiz et al. 2016)

Access to other types of capital, such as high-quality technology, can facilitate empowerment. However, capital such as mobile phones used for trading, can also be expensive. Boateng et al. (2014) suggest that buying high quality phones with greater functionality could increase income. However, the cost of the higher quality phones presented a challenge, and buying cheaper phones or less expensive plans were less beneficial in helping women connect with their buyers and facilitating the ability to use e-commerce.

Interactions between access to credit/capital/land and cooperatives and social networks. We discuss the theme of formal cooperatives in the next section, but one of the standard functions of a cooperative is to facilitate access to credit, so we briefly describe that issue here.

Two high-quality (Akter et al. 2017 and Wrigley-Asante 2013) and three medium-quality studies (Akiwumi 2015, Jones et al. 2012, and Koomson 2017) explicitly mentioned the connection between access to credit and cooperatives. Women often rely on formal and informal groups for credit and insurance, including saving, sharing risk and borrowing (Wrigley-Asante 2013). Akiwumi (2011) found that women from Sierra Leone in the study decided to turn a traditional social support network into a formal cooperative to '*increase the likelihood of leveraging donations and microcredit.*'

In describing the experiences of women producers linked to the fair trade movement in seven countries in Asia, Africa and Latin America, Jones et al. (2012) found that many collective action groups had savings and credit schedules, which '*varied from small 'merry-go-rounds' (rotating savings groups) among self-help groups, to large cooperative banks.'*

Formal economic institutions such as banks can also help women obtain credit. Although banks are not available in all places, they are becoming more prevalent in some places. Wrigley-Asante (2013) notes:

> *Some of the women, however, noted that the proliferation of formal banking institutions in the market places in recent times had improved women's ability to save with formal banking institutions and that this in turn enabled the guaranteeing of loans.* (Wrigley-Asante 2013)

Summary

These studies point to multiple dimensions of agricultural land access that affect women's ability to use it for their own economic empowerment. These dimensions include ownership rights, decision-making rights about how the land will be used, and access to water for growing crops. These studies point to facilitators and barriers to land access for women that include gender norms, inheritance traditions, land ownership laws, bargaining networks, and land takeovers by governments and global mining companies.

Cultural land ownership and inheritance traditions in some places require land ownership by men – husbands or brothers. In other places, cultural and tribal traditions view land as owned by the community rather than individual persons. Sometimes governments facilitate land ownership by changing the laws of who owns the land, and sometimes they displace women to less productive land by seizing land for their own economic gain or allowing global mining institutions to take over the most productive lands.

Some studies point toward the barriers of capital and credit in agricultural endeavours and note capital and credit constraints in the trade occupations as well. A common issue is that access to credit is more costly for women, as they often face less favourable terms imposed by creditors. These concepts are closely linked because the ability to access capital is largely dependent on the ability to access credit as both trade and agriculture require investment of time and materials in advance of the sale of the products. Collectively, the studies indicate that barriers to credit include less certainty among creditors in lending to women given their emerging occupations and roles, dictating terms to women that they might otherwise negotiate with men, and the high costs of credit. Some studies also document the success of cooperative organisations in facilitating bargaining for land, capital, or credit.

3.2.3 NETWORKS AND ORGANISATIONS

Evidence about the importance of networks and organisations was provided by 14 studies: seven high-quality (1,3,4,7,13,17,18) and seven medium-quality (2,10,11,12,13,15,16). The studies include both low income and middle income countries, and they explore the commercial agriculture, trade, and mining industries.

The supportive roles that formal cooperatives, unions, governments and government-related organisations, employers, and social and kinship networks are discussed here, as well as barriers to participating in these kinds of activities and organisations. These organisations help reduce

barriers to market entry and business improvement by educating individuals in business practices and leadership, connecting them to networks of buyers and sellers, facilitating access to credit and capital, and helping individuals navigate various market environments or access government-supported programmes. Further, building networks is an key form of building social capital. More detailed information about themes and the supporting evidence may be found in Table 5 and Appendix 13.

Table 5. Analytic Theme Summary Description for Networks and Organisations (14 studies)

Theme (studies)	Description
Formal cooperatives (n=12); high-quality: 1,3,4,14,17,18; medium-quality: 2,10,12,13,15,16)	Description: Includes trade unions and trade/business-oriented cooperatives where both men and women are members, and associations designed specifically to support women; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=11), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=2), India (n=1), Indonesia (n=1), Kenya (n=1), Mali (n=1), Mexico (n=1), Myanmar (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=2), Philippines (n=1), Sierra Leone (n=1), Tanzania (n=3), Thailand (n=1), Uganda (n=2), Zimbabwe (n=1)
Social and kinship networks (n=6; high-quality: 1,7,18; medium-quality: 2,10,11)	Description: Social and kinship networks are not constructed by external institutions, but include individuals who are and are not related; documented in agriculture, trade, mining. These networks can provide support for women and access to resources and information. Regions[1]: Sub-Saharan Africa (n=6), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Dem. Rep. of the Congo (n=1), Ghana (n=2), India (n=1), Kenya (n=1), Mexico (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=1), Sierra Leone (n=1), Tanzania (n=1), Thailand (n=1), Uganda (n=1)
Firm and organisation strategies (n=2; high-quality: none; medium-quality: 10,13)	Description: Formal cooperatives and employers may use a variety of strategies to support building of women's

Theme (studies)	Description
	economic empowerment and leadership skills; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=2), East Asia (n=0), South Asia (n=1), Latin America (n=1) Countries: India (n=1), Kenya (n=1), Mexico (n=1), Nepal (n=1), Nicaragua (n=1), Tanzania (n=2), Uganda (n=1)
External support (government or organisations) (n=2; high-quality: none; medium-quality: 10,12)	Description: Governments and organisations providing support for women's leadership and training and access to land; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=2), East Asia (n=0), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=1), India (n=1), Kenya (n=1), Mexico (n=1), Nepal (n=1), Nicaragua (n=1), Tanzania (n=1), Uganda (n=1)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Formal Cooperatives

This theme was addressed in six high-quality (Afolabi 2015, Akter et al. 2017, Austin 2017, Manzanera-Ruiz et al. 2016, Ugwu et al. 2016, and Wrigley-Asante 2013) and six medium-quality (Akiwumi 2011, Jones et al. 2012, Koomson 2017, Lauwo 2018, Mutopo 2011, and Sidibé 2012) studies. Broadly, there are two types of formal cooperatives. First, trade/business-oriented cooperatives facilitate access to credit, connection to markets, including international markets, information about prices and so on. Trade unions, although not included as a formal cooperative, can also be thought of as a related type of organisation. These types of cooperatives generally include both men and women, and below we discuss the challenges for women to participate fully in these organisations.

A second type of formal cooperative is intended to help women specifically. These women-oriented cooperatives have diverse purposes including (a) financial functions such as encouraging savings and pooling resources to provide insurance, credit and purchasing shared capital (for example, processing equipment); (b) training functions; (c) functions that support women's leadership and decision-making roles and enable women to learn from others'

experiences; and (d) market-oriented functions similar to the trade/business cooperatives described above. Although the members of these types of cooperatives are generally women, sometimes men belong as well to take advantage of the financial and market functions. Although cooperatives can facilitate economic empowerment in many ways, their influence is constrained by gender norms and poor organisation management as discussed below.

Facilitating women's economic empowerment. There are several mechanisms by which cooperatives facilitate empowerment. Austin (2017) reports that '*cooperatives can often get a better price for the coffee.'* Jones et al. (2012) describe how cooperatives have:

> *…allowed these women to learn from each other, pool resources to acquire inputs and capital, receive training, and improve production techniques. This has been central to enabling them to produce marketable goods and trade with Fair Trade buyers on favourable terms.* (Jones et al. 2012)

Manzanera-Ruiz et al. (2016) describe an exclusively women's coffee trade network in northern Tanzania. Historically, the proceeds for coffee production went almost exclusively to men, and this trade network was developed specifically to address that problem:

> *The action of the network begins at the time of the coffee harvest, which includes the washing and drying of the beans… Washing and drying are undertaken in the women's own homes, especially in the kitchen, which is under the control of women. It is then that women take the opportunity to put aside small quantities of coffee, from two to four kilos, without their husbands' knowledge. They are then able to sell these quantities to other women, who act as intermediaries between them and the wholesalers.* (Manzanera-Ruiz et al. 2016)

The findings of this study, however, show that the network was ultimately not successful in changing gender relationships or in providing financial security for women, in part because the intermediaries ended up with the products. A tomato cooperative described in the same study, however, was more successful, because the products were divided evenly between the participants, and some money was reserved to reinvest.

Constraints on cooperatives as facilitators of women's economic empowerment. Some of the reasons cooperatives in some cases are not successful in facilitating women's empowerment relate to gender norms and the ability of women to participate and play a leadership role. This is particularly true for the cooperatives that contain both men and women (or those that contain mostly men and that do not welcome women's participation), but gender roles can also discourage participation in women-only cooperatives. For example, one of the barriers to participation in cooperatives described by Akiwumi (2011) is disapproval from husbands. Similarly, Manzanera-Ruiz et al. (2016) find that women do not join because participation in the cooperative could take time away from fulfilling their household responsibilities:

> *The majority of women in Mamba are not involved in the groups. Although they recognise the improvement that these crops could bring to their lives, they explain that their status would be endangered with their participation, as it means a restriction on the fulfilment of the expectations of their gender.* (Manzanera-Ruiz et al. 2016)

Other reasons that cooperatives may not fulfil their promise to empower women are more structural. These reasons include (a) bad management or leadership, including corruption (Akiwumi 2011, Austin 2017); (b) members who do not participate and fail to pay their dues (Akiwumi 2011); and (c) the high cost of dues (Akiwumi 2011, Austin 2017).

Austin (2017) describes another reason that farmers may not use cooperatives that connect growers to buyers in global markets, even though they could get a better price for their product than selling directly to a trader:

> *One key factor has to do with the amount of time it takes to get payment from the cooperative. The cooperatives do not pay farmers for their coffee until after it is sold at a higher level of aggregation in Mbale or Kampala, which can take several weeks or even months. Farmers are given a receipt that shows how much coffee was sold to the cooperative, but due to a lack of basic infrastructure, with most homes lacking even furniture, people often lose the receipts and have no way to validate for the money entitled to them.* (Austin 2017)

Another reason that participation in cooperatives may not lead to women's empowerment is that the focus on global markets can keep women marginalised. In a study that included only women, Sidibé et al. (2010) found that these markets are so large that women end up with little bargaining power to increase the price paid for their products.

Social and Kinship Networks

Three high-quality (Afolabi 2015, Darkwah 2002 and Wrigley-Asante 2013) and three medium-quality studies (Akiwumi 2011, Jones et al. 2012 and Kelly et al. 2014) include discussions about this theme. These studies note the important, supportive role that social and kinship networks may provide in facilitating women's economic empowerment. For example, findings from Darkwah (2003) suggest that women engaging in some types of trade had relationships with their families that were supportive of them pursuing greater economic opportunity. The heterogeneous group of women included in the study were generally small scale entrpreneurs supported in pursuing international, transcontinental economic opportunities by Ghanian expatriate communities around the world in addition to some women whose husbands lived in countries like New York, London, or Hong Kong.

Several studies described social networks providing support for vulnerable and marginalised populations (Jones et al. 2012, Kelly et al. 2014, Koomson 2017, Wrigley-Asante 2013). For example, Koomson (2017) explains:

> *The use of the voluntary associations to improve women's well-being is critical for the Talensi women who lack any form of social welfare programs. In rural places in Ghana, the provision of welfare is not a priority area for the government. The only welfare programs the women know are the local associations they form*. (Koomson 2017)

Kelly et al. (2014) also describe an informal association of sex workers that helped these women access health care and pay their bills. Other roles played by informal social networks include providing access to information (Afolabi 2015, Jones et al. 2012, and Wrigley-Asante 2013), access to technology (Akiwumi 2011), and access to training and capacity building (Jones et al. 2012).

Firm and Organisational Strategies

Two studies, both medium-quality, discussed this theme. Jones et al. (2012) focused on strategies of collective enterprises in the trade sector. Fair Trade markets are an example of organisational strategies which have been used to support producers from disadvantaged backgrounds, including women. Although connections to Fair Trade markets have opened up opportunities for women, greater competition as a result of globalisation can put downward pressure on prices received by entrepreneurs. The authors of this study concluded there was a need to think beyond relying solely on fair trade markets:

> *This points to the need for collective enterprises to have clear strategies for sustainability, beyond a reliance on Fair Trade markets. Some of the groups have already begun to do this by tapping into opportunities in local markets, undertaking promotional activities and trade fairs, or developing products for specialty markets that pay a higher price*. (Jones et al. 2012)

In addition to developing new markets, Jones et al. (2012) also discussed the strategic role of collective enterprises in fostering and training strong women leaders.

> *Strong leadership was seen as a key factor for success. Unfortunately, there is often only a small pool of women with the confidence, skills, and time to take on leadership roles, so some organisations have the development of leadership potential as a key aim.* (Jones et al. 2012)

Similarly, in the mining sector, Lauwo (2018) discussed the importance of having women in managerial positions and in leadership positions in organisations such as trade unions:

> *The trade union representative interviewed mentioned that women's representation is weak in the workers' union. She added that there is only one female on the trade union committee and: ''It is difficult to voice women's concerns as the trade union is dominated by me… we need strong leadership and an active platform for voicing our concerns.''* (study participant, Lauwo 2018)

External Support from Government or Organisations

In addition to formal cooperatives and informal networks, government and other organisations can provide support for activities that enhance women's empowerment. Two studies, both medium-quality, discussed this descriptive theme.

Jones et al. (2012) provided one example of a group in Kenya that received support from the Export Promotion Council to help develop trade links, and another group in Mexico that received land from local authorities and funding from a foundation to develop a space for meetings and training sessions. Similarly, Koomson (2017) describes how the government in Ghana was able to facilitate the release of land to women:

> *In Ghana, through IFAD programs, the government has negotiated with Tendanaa or landlords in the Talensi society, who serve as religious custodians of land as well as chiefs, husbands, and other male leaders in the Upper East region for the release of land to women.* (Koomson 2017)

Summary

Collectively, the studies highlight the roles of formal cooperatives, social and kinship networks, firm and organisational supports, and external support can and do play in supporting women's access to credit, capital, land, gaining access to markets, information and education, leadership opportunities, and obtaining better pricing for goods within the markets. The studies note both successes and challenges. Challenges include not all women feeling comfortable or having the time to participate given the expectations around their gender roles, or poor operations of the groups themselves.

3.2.4 TECHNOLOGY, SKILLS, AND EDUCATION

Evidence about the importance of technology, skills, and education was provided by 11 studies: five high-quality (1,3,7,17,18) and six medium-quality (2,5,9,10,13,16). The studies include both low income and middle income countries, and they explore the commercial agriculture, trade and mining industries.

Themes in this section focus on ways that technology, and technical, business, and management skills, could facilitate more women's participation in economic activities and enhance their existing activities in ways that would support their productivity and balancing of paid and unpaid

work responsibilities. More detailed information about themes and the supporting evidence are in Table 6 and Appendix 13.

Table 6. Analytic Theme Summary Description for Technology, Skills and Education (11 studies)

Theme (studies)	Description
Technology (n=7); high-quality: 1,3,18; medium-quality: 2,5,10,16)	Description: Includes discussion of ways that technology can facilitate women's ability to conduct business activities and barriers to accessing the technology; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=6), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=1), India (n=1), Indonesia (n=1), Kenya (n=1), Mali (n=1), Mexico (n=1), Myanmar (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=2), Philippines (n=1), Sierra Leone (n=1), Tanzania (n=1), Thailand (n=1), Uganda (n=1)
Technical, business, and management skills (n=8; high-quality: 1,3,7,17; medium-quality: 5,9,10,13)	Description: Includes discussion of various skill sets that could help women engage in more economic development activities, to do so more effectively, and to balance their paid and unpaid work responsibilities; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=7), East Asia (n=2), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=1), India (n=1), Indonesia (n=1), Kenya (n=1), Mexico (n=1), Myanmar (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=3), Philippines (n=1), Tanzania (n=3), Thailand (n=2), Uganda (n=1)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Technology

Access to technology was discussed in three high-quality (Afolabi 2015, Akter et al. 2017, Wrigley-Asante 2013) and four medium-quality studies (Akiwumi 2011, Boateng et al. 2014, Jones et al. 2012, Sidebe et al. 2012). A number of these studies noted the lack of technology as a barrier (for example, the lack of networks for mobile phone coverage) while the same studies and other studies also described cases when the introduction of new technology facilitated women's empowerment through increased productivity.

One reason a high proportion of studies likely did not mention technology is that some communities featured in the studies had only irregular access or no access to electricity, which would make it difficult to engage with most technologies. Similar to the potential benefits of cooperatives, the potential benefits of technology are many, but actual benefits may be constrained by gender norms as discussed below.

Technology as a facilitator. In commercial agriculture, technology can increase productivity and income for both men and women. Because women are also responsible for work in the home, they receive an additional benefit from certain technologies, specifically a reduction in time burden or workload. Akter et al. (2017) provide an example of how the advantages of new technology for women depend on the initial level of mechanisation:

> *Labour-saving technologies such as combine harvesters, drum seeders and mechanical transplanters have alleviated women's drudgery and workload in Thailand and South Sumatra (Sumatra, Indonesia) while in the Philippines, where farming practices are still highly non-mechanised, women are overwhelmed by the heavy peak season workload and consequently suffer from numerous health problems.* (Akter et al. 2017)

For women in the trade sector, technological advances in electronic means of communication such as mobile phones, fax and email have obvious advantages in terms of connection to buyers and information about market prices. Two of the studies (Boateng et al. 2014, Wrigley-Asante 2013) confirmed that women's use of mobile phones increased their access to information about market prices. Boateng et al. (2014) find that:

> *Market women who innovatively integrate mobile services, like mobile banking, stand to reform their market structural processes and become more economically empowered. In micro-trading activities, enhancing communication and trading processes through mobile phones improves revenue acquisition and enhances decision making and control.* (Boateng et al. 2014)

Boateng et al. (2014) also suggest an additional benefit of technological advances in communication in that connecting with customers electronically alleviates the need to travel and reduces the costs of transportation and the risks of accidents and armed robbery attacks.

Illustrating a connection across analytic themes, one study pointed out that cooperatives can also play a role in facilitating the use of technology, which could be then used to increase women's productivity and income. For example, Jones (2012) found that:

> *Technical assistance provided from the Fair Trade buyer Fruits of the Nile led to the introduction of simple solar dryers to producers in Uganda which meant that fruit previously left to rot could be converted into saleable produce.* (Jones et al. 2012)

Constraints on technology as a facilitators of women's economic empowerment. One of most important barriers in the use of technology that applies to both men and women is a lack of basic infrastructure. Some of the villages where studies were conducted (for example, Afolabi 2015, Austin 2017 and Elias 2010) did not have any electricity in the whole village and had no systems of water other than what naturally occurs in nature (for example, no pumps). Similarly, poor network coverage has reduced access to mobile phone technology (Boateng et al. 2014).

The cost of new technology can also limit its availability, and because of the differences in access to credit reported above, this barrier is generally more important for women than for men. Afolabi (2015) reports that because production technology is costly, and much of it is privately owned, *'in the whole village there are only five of the same grinding machines, and women have to queue to get their work done'* (Afolabi 2015). Boateng et al. (2014) also document that cost is one of the most important considerations when a woman trader is considering what type of mobile phone to purchase.

Gender norms and associated power relations can also be an important barrier for women in adopting new technology. Afolabi (2015) discusses the problem of technology being under men's control, limiting women's access to that technology. Darkwah (2003) also points to differences in gender attitudes towards technology and the awareness and use of that technology. Specifically, at the time the study was conducted Darkwah found a large gender gap in awareness and use of the internet and email.

Finally, a lack of education and training, which we discuss in more detail in the next section, can limit the effective utilisation of technology. Afolabi (2015) suggests that training women can both help them learn to '*operate these machines and facilitate their sense of ownership and control of this mechanized (and typically thus male) space.'*

Technical, Business and Management Skills

Technical, business and management skills can help women engage in more economic development activities, to do so more effectively, and to balance their paid and unpaid work responsibilities. This theme was noted as a facilitator or barrier to women's economic opportunities in four high-quality (Afolabi 2015, Akter et al. 2017, Darkwah 2002, and Ugwu et

al. 2016) and four medium-quality (Boateng et al. 2014, Fröcklin et al. 2014, Jones et al. 2012, and Lauwo 2018) studies.

Low levels of education and high levels of illiteracy for women are important barriers to developing technical, business and management skills. For example, knowing the market price is important in negotiating with buyers, but '*those who are illiterate or semi illiterate are unable to read the latest information about their business and the market prices their crop attracts*' (Afolabi 2015). As noted in this study, women were less likely to have the education needed to read the available information.

Other types of training described by one study related to time management, planning and organisational skills. Because of women's household responsibilities, they must juggle multiple roles. Ugwu et al. (2016) found that these were important skills for women traders in Nigeria to learn. Similar to the findings in our other themes, gender norms specific to a community provided the context for whether and how women could learn these skills:

> *The naturalising discourses around the technical equipment being perceived as too complicated for women to understand, puts them at a disadvantage, as it is simply perceived that only male buyers understand it.* (Afolabi 2015)

Similarly, Fröcklin et al. (2014) report that almost all of the men interviewed had access to and knew how to swim or use snorkels, flippers and spears, compared to a little more than half of the women. This differential access to equipment and knowledge about how to use that equipment impeded women from engaging in deeper water fishing opportunities rather than just catching invertebrate sea creatures near shore.

The mining sector in the several studies in this review proved particularly resistant to including women in organisational training. For example, Lauwo (2018) reports:

> *The site female medical doctor interviewed explained how difficult promotion is for a woman in the mining sector... women get very few opportunities for training, because of lack of attention to gender issues, to training and other human resource policies... As a result, women often don't get an opportunity to go for training, especially external training... This may be partly attributable to institutional and cultural issues in Tanzania that have significantly constrained women's access to and participation in the mining sector, including a traditional education route that considers degrees such as mining, geology or engineering, needed most in the mining sector, to be suitable only for men.* (Lauwo 2018)

Agricultural extension services, which provide technical assistance and training to farmers, are an important source of information about new technologies and business practices. Akter et al.

(2017) found that women's access and use of extension services varied across the four East Asian countries included in the study:

> *In more than half the FGDs* [focus group discussions] *in Myanmar and Indonesia, participants stated that they lacked access to formal extension service. This statement was echoed by one of the few female extension officers in Yogyakarta: ''Most extension officers are men and they do not visit the female farmers although the women are much more active and receptive to new information". Conversely, in Thailand and in the Philippines, women have direct contact with the extension officers. In the Philippines, women participate more actively than men in most agricultural meetings organised by the local extension office. Men in Thailand and in the Philippines prefer to work in the field and are not very interested in attending trainings or meetings. However, they listen to the information conveyed by their wives. One female farmer in Thailand said, ''While my husband is in the field, I attend the trainings to learn about new techniques and cropping practices. Afterwards, I discuss this with my husband and we implement these new methods in the field".* (study participants, Akter et al. 2017)

As discussed earlier, one role of cooperatives can be to provide training. Jones et al. (2012) found that:

> *Belonging to an organisation gave many of the women access to information and marketing support, often making for better decisions about whom to sell their goods to, at what price and when, and giving them greater bargaining power to make demands. In India, groups associated with the Artisans' Association reported that they set prices for their goods after receiving information from the Association about costing and pricing.* (Jones et al. 2012)

In comparison to Langer et al. (2018), which focused solely on interventions enabling women's participation in the labour market including through skills training for wage workers, the skills discussed in the studies included in the current review are of a more closely related to skills needed for entreprneural activities such as basic literacy, time management, planning and organisational skills, shared knowledge about markets and marketing, and technical assistance for farmers.

Summary

The studies indicate that technology may improve women's economic empowerment by reducing their time burden and facilitating balance between home and work roles, increasing productivity so they have more products to sell, decreasing stress and the physical toll on their bodies, and helping them to acquire more connections to information, sellers, or buyers. Barriers to accessing technology in these studies include lack of electricity in some communities, poor phone or internet network availability, and costs. Lack of education and training was also

noted as a barrier, and this was linked to the social and cultural norms that confer technology as a speciality of men rather than women.

The studies suggest that women are impeded in accessing and developing technical, business, and management skills by illiteracy and low education, time limitations (for example, conflicting household roles and lack of technology), and gendered norms about the capacity of women to learn these kinds of skills. Networks and cooperatives sometimes served as a means for gaining information and developing these skills. Agricultural extension agents were also a means of learning new skills and techniques. However, access to these services varied by country, community, and sometimes based on the social, cultural and religious norms whereby some male extension agents may not be willing to share information with female farmers and some female farmers may be prohibited from interacting with male agents (as discussed in the "gender norms, culture, and laws" theme).

3.2.5 GLOBAL MACRO FACTORS (ECONOMIC AND NON-ECONOMIC)

Evidence about the role of global macro factors, both economic and non-economic, on women's labour market participation was provided by 12 studies: five high-quality (1,4,6,7,14) and seven medium-quality (2,9,10,12,13,15,16). The types of global factors discussed in these studies include non-gender-related macroeconomic factors (n=8), such as multinational investors, transnational corporations, international markets and economic liberalisation; male employment patterns (n=4); and environmental degradation (n=4). The studies include both low income and middle income countries, and they explore the commercial agriculture, trade, and mining industries.

Discussion of the global macro factors focuses on a mix of facilitators and constraints on women's economic empowerment. On the one hand, global forces and trade liberalisation create new opportunities – some that support women specifically, and some that indirectly create new employment opportunities for women due to men shifting to other work, sometimes in locations away from home. At the same time, these shifts in opportunities sometimes create more burdens on women because the women are left to perform the jobs that the men used to do and to continue their previous duties.

Environmental degradation is a global force that works in much the same way except in the opposite direction. The degradation decreases opportunities available in the natural resources such as land needed for farming or bodies of water for fishing. As the more profitable areas the men were working in become degraded, they move to take over the less profitable areas that women were previously working. In turn, the women are pushed to even less profitable and more time intensive areas.

The non-gender-related macroeconomic factors are discussed across all the industries, in all the study regions and across countries characterised by: the World Bank as LIC, LMIC, and UMIC; the

UN as high, declining, and aging fertility; the GAP as better and worse than the world average; and by the GII as better and worse than the world average. The domino effects of male employment patterns are discussed only in a subset of studies in sub-Saharan Africa, but a similar domino effect is discussed as a result of environmental degradation in an East Asian country in addition to some of the sub-Saharan countries.

More detailed information about themes and the supporting evidence may be found in Table 7 and Appendix 13.

Table 7. Analytic Theme Summary Description for Global Macro Factors (Economic and Non-Economic) (12 studies)

Theme (studies)	Description
Non-gender-related macroeconomic factors (n=8); high-quality: 4,7,14; medium-quality: 10,12,13,15,16)	Description: Includes discussion of how global markets and trade liberalisation create new opportunities for women, but are also constraining forces due to unequal international exchange relationships; discussions of Fair Trade initiatives are included here; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=8), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=2), India (n=1), Kenya (n=1), Mali (n=1), Mexico (n=1), Nepal (n=1), Nicaragua (n=1), Tanzania (n=3), Thailand (n=1), Uganda (n=2), Zimbabwe (n=1)
Male employment patterns (n=4; high-quality: 1,14; medium-quality: 2,12)	Description: Includes discussion of the ways that changes in global macroeconomic forces serve as both facilitators of and barriers to women's economic empowerment through changes in male employment patters; the studies document how changes in opportunities available to men sometimes free up new, better-paying job opportunities for women and gradual changes in social norms about the work that women can perform; the studies also document that these opportunities sometimes place more burdens on the women to perform more roles; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=4)

Theme (studies)	Description
	Countries: Ghana (n=1), Nigeria (n=1), Sierra Leone (n=1), Tanzania (n=1)
Environmental degradation (n=4; high-quality: 4,6; medium-quality: 2,9)	Description: Includes discussion of how environmental degradation serves as a barrier to women's economic empowerment by exacerbating their disadvantage and how it affects women more than men due to their already lower levels of empowerment; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=3), East Asia (n=1) Countries: Philippines (n=1), Sierra Leone (n=1), Tanzania (n=1), Uganda (n=1)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Non-Gender-Related Macroeconomic Factors

Three high-quality (Austin 2017, Darkwah 2002, and Manzanera-Ruiz et al. 2016) and five medium-quality studies (Jones et al. 2012, Koomson 2017, Lauwo 2018, Mutopo 2011, and Sidibé et al. 2012) address how macroeconomic factors such as global markets and trade liberalisation can have both positive and negative effects on women's empowerment.

Market liberalisation can allow women to buy land as land becomes a marketable commodity (Manzanera-Ruiz et al. 2016). However, fair trade markets, which are often linked with market liberalisation, do not always provide the higher prices that women need for financial security. For example, Jones et al. (2012) reports:

> *Dependency on Fair Trade markets has led to substantial risk, too, especially in the wake of the global economic recession. Since 2008, demand for Fair Trade products has declined / in some cases dramatically.* (Jones et al. 2012)

Several other studies describe how *'unequal [international] exchange relationships'* for coffee (Austin 2017), *'unequal international exchange in mining agreements'* (Akiwumi 2011) and fluctuating global prices of gold (Koomson 2017) have negative impacts on wages and the prices received for goods sold in international markets. These power dynamics in global markets

negatively affect men which, in turn, affect gender relations and limit the opportunities and outcomes available to women (as described below).

Male Employment Patterns

Two high-quality (Afolabi 2015 and Manzanera-Ruiz et al. 2016) and two medium-quality (Akiwumi 2011 and Koomson 2017) studies discuss the implications of changes in male employment patterns for women's empowerment. Global macroeconomic factors (for example, economic liberalisation, multinational investments) or other external phenomena that affect the economy (for example, conflict and global warming) can affect men's employment patterns which, in turn, can affect women's economic opportunities both positively and negatively. The clearest example of a positive outcome is from Afolabi (2015) where men migrated to the cities to take advantage of employment opportunities there, leaving women behind to tend to farming:

> *A positive effect of this migration can be seen in gender relations which have been altered due to migration. There has been a shift in power dynamics which has given women greater opportunities to exercise some power, not only in the farm household, but also in the community. This is perceived to be due to women's taking up economic roles in farming.* (Afolabi 2015)

On the negative side, when men are not present, women often must take on both men and women's roles, increasing their time burden (Manzanera-Ruiz 2016). Afolabi (2015) reports a similar outcome:

> *The negative effects are scarcity of labour created by withdrawing from farm work, a reduction in overall farm population which impacts on the economy of the village and also leads to the abandonment of men's wider familial and community responsibilities, adding to women's burden.* (Afolabi 2015)

As discussed in the section on non-gender-related macroeconomic factors, it is also possible that a reduction in employment opportunities for men could then lead men to displace women, marginalising women even further. Akiwumi (2011) describes what happened to men and women when the mines closed in one region in Sierra Leone:

> *Mine closures... had further eroded the value of women's fishing contribution and community status. Many men, previously dependent on mining incomes, became more active in deep-water fishing using gill nets and canoes in the mine dredge-ponds to generate an income, while women were confined to scooping up fish on the shores of these dredge-ponds or had to travel considerable distances from villages in the mining area to fish in undammed streams.* (Akiwumi 2011)

Environmental Degradation

Two high-quality (Austin 2017 and Chandra et al. 2017) and two medium-quality studies (Akiwumi 2011 and Fröcklin et al. 2014) discuss how climate change can affect women's economic empowerment. Chandra et al. (2017) report that climate change has negative effects on financial assets, agriculture yield and debt for both men and women, but the consequences for women are worse than for men:

> *Women are more disadvantaged and as such tend to farm in smaller plots, work shorter hours or limit farming to cash crops. Extreme climate events in conflict-prone agrarian communities appear to subject women to forced migration, increased discrimination, loss of customary rights to land, resource poverty and food insecurity.* (Chandra et al. 2017)

Another example is where environmental degradation reduces the quality of fishing resources (Fröcklin et al. 2014). Similar to Chandra et al.'s (2017) results, because women are less empowered than men, the negative impact of environmental degradation is greater for women than men.

Summary

The studies identify various macro-level factors that have implications for women's economic empowerment. While all of these factors affect women and men, the studies point toward differential implications by gender, and sometimes a domino effect. In other words, more scarce resources for men resulting from environmental degradation or changing employment opportunities sometimes causes men to shift toward the less desirable work that women were doing, leaving the women with even fewer opportunities.

On the other hand, different or more opportunities for men may cause them to leave their current occupations or land, freeing that up for women to take over those roles. When women pick up roles previously occupied by men, that sometimes leads to changes in beliefs about acceptable gender roles or skills that women can acquire. Changes in the global marketplace bring both more opportunities and more uncertainties to both men and women. Networks can help in navigating these opportunities, but as previously noted, they do not guarantee a better outcome.

3.2.6 UNPAID CARE AND WOMEN'S TIME POVERTY

Evidence about the importance of unpaid care and women's time poverty in relation to women's economic empowerment was provided by 11 studies: six high-quality (1,3,4,7,14,17) and five medium-quality (2,10,11,12,13). Types of factors included here relate to: work-life conflict, including time burden (n=9) and physical demands and health needs (n=7). The studies

include both low income and middle income countries, and they explore the commercial agriculture, trade and mining industries. More detailed information about themes and the supporting evidence may be found in Table 8 and Appendix 13.

Table 8. Analytic Theme Summary Description for Unpaid Care and Women's Time Poverty Factors (11 studies)

Theme (studies)	Description
Work-life conflict including time burden (n=9; high-quality: 1,3,4,14,17; medium-quality: 2,10,12,13)	Description: Includes discussion of the activities that compete for women's time that are different from the expectations for men; ways that household and child-rearing activities are supported or unsupported and the trade-offs of that to women's paid work; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=8), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=1), India (n=1), Indonesia (n=1), Kenya (n=1), Mexico (n=1), Myanmar (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=2), Philippines (n=1), Sierra Leone (n=1), Tanzania (n=3), Thailand (n=1), Uganda (n=2)
Physical demands and health needs (n=7; high-quality: 4,7,14; medium-quality: 10,11,12,13)	Description: Includes discussion of the physical demands of some paid work opportunities and the negative health consequences of some opportunities; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=7), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Dem. Rep. of the Congo (n=1), Ghana (n=2), India (n=1), Kenya (n=1), Mexico (n=1), Nepal (n=1), Nicaragua (n=1), Tanzania (n=3), Thailand (n=1), Uganda (n=2)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Unpaid Care and Women's Time Poverty

This theme is discussed in five high-quality studies (Afolabi 2015, Akter et al. 2017, Austin 2017, Manzanera-Ruiz et al. 2016, Ugwu et al. 2016) and four medium-quality studies (Akiwumi 2011, Jones et al. 2012, Koomson 2017, Lauwo 2018). Work-life conflict often comes from gender norms that prescribe that women do the household work, and that any work in the labour market would be added to the existing household work. This increases women's time burden, but the additional household income from women's market work can also reduce their husband's responsibilities, thus exacerbating already existing gender inequality:

> *According to a male participant, 'Change in our village is influenced by modern way of life in the cities… modernization is taking place everywhere. My wife wants to be known as a successful woman and there is hidden competition in the household of farmers… let them go ahead, we are still their husbands, they are just making our job easier' (Jimoh Ali, male cocoa farmer). From this response, it can be deduced that there is little or no renegotiation of reproductive work, such that women face a double or triple workload while men still enjoy some leisure time.* (Afolabi 2015)

Even when women are able to keep their own earnings, Afolabi (2015) found that the expectations about who pays for household expenses changed when women worked, thus increasing the burden on women:

> *It is obvious that women have rights and decision-making power over the money made from their businesses, as men of Yekemi are generally of the view that it is a man of low self-esteem who asks for or relies on his wife's income. However, during the course of this research, I discovered that even though men are not taking women's income from them, they are shifting their responsibilities to them in terms of paying for school fees for their children, provision of food for the family and fulfilment of other family obligations. It was observed that these responsibilities add further to women's burden for they have to work 'round the clock to meet all these household demands.* (Afolabi 2015)

Factors contributing to women's time burdens and the ways in which balancing paid and unpaid work are or are not supported are described in various ways across the studies.

Lack of running water. Several studies mentioned the lack of infrastructure such as running water as playing a role in increasing women's time burden. For example, Afolabi (2015) states:

> *A lack of availability of social amenities compound women's labour burden in terms of reproductive and productive work. For example, there is no tap or functioning borehole water in the community. They depend on the river water which is at the outskirts of the residential areas.* (Afolabi 2015)

Lack of enforcement of work-family legal protections. Another study described how work-family legal protections such as maternity leave are sometimes not enforced, making it more difficult for women with children to achieve success in the workforce. For example:

> *In addition, the site medical doctors interviewed also indicated that some women have been denied their right to promotion because of maternity leave (Respondent 5: Site Medical Doctor).* (Lauwo 2018)

Time-intensive agricultural methods. Although the overall result of working women experiencing an increased time burden was similar across sectors, the issues of work-life (and work-family) conflict play out somewhat differently for women in different sectors. For example, Manzanera-Ruiz et al. (2016) describe the time-intensive nature of tomato cultivation, which can discourage women from working in that sector because they continue to face intensive time demands with unchanged household responsibilities:

> *Tomato cultivation is as noted very time consuming (especially activities related to pesticide spraying, watering, or weeding), and it interferes with women's other demands and priorities in their daily routine (such as fetching water and looking for redwood). The average daily working hours for Mamba women are 17.8 hours. Tomato growing represents an extra activity to which many women cannot allocate the time, given the present unequal gendered division of work.* (Manzanera-Ruiz et al. 2016)

Distance of opportunities from families. Women who work in the mining sector face different types of challenges in trying to balance work and family. For example, the mines are often located far from where families live, requiring some women who work in this sector to adopt the strategy of leaving their children with kin members. Koomson (2017) describes this situation:

> *With women's participation in small-scale mining, the incidence of child fosterage is increasing. Most women miners I interviewed indicated that their children, especially older children, lived with kin members. Child fosterage is not only an emerging phenomenon among Talensi women miners, but it is also taking on a different form. The women miners feel that when they take part in the rearing of their children, it places them in a position to be able to strike a balance between parental care and child development. They continue to be involved in the rearing of their children in the local communities while working in the mining communities, in spite of their absence due to their busy schedule as miners.* (Koomson 2017)

Similarly, Lauwo (2018) describes the work-family barriers in the mining sector in this way*:*

> *The conditions in the mining sector make it particularly difficult for women to balance family and work. Many of the problems women face in pursuing a mining career arise*

> *from their traditional role as primary caregivers. It can be very difficult for females to achieve a good work/life balance because of the industry's constraints in terms of flexibility, remote site work and juggling childcare with often unsociable hours and expectations of overtime working.* (Lauwo 2018)

Physical Demands and Health Needs

Three high-quality (Austin 2017, Darkwah 2002, Manzanera-Ruiz et al. 2016) and four medium-quality studies (Jones et al. 2012, Kelly et al. 2014, Koomson 2017, Lauwo 2018) include discussions of the physical demands and health risks for working women. Examples of health risks include increased exposure to malaria carrying mosquitos for women who cultivate coffee (Austin 2017) and irregular and long periods, headaches and back pain for women working with heavy machinery in the mining sector (Lauwo 2018).

Physically demanding tasks. Both agriculture and mining jobs can be physically demanding. Austin (2017) describes growing coffee in this way:

> *The physically demanding nature of picking the coffee from tall bushes combined with the many passes required through the gardens to pick the cherries at the peak of ripeness means that coffee is much more labour-intensive than other products.* (Austin 2017)

In addition, collecting water for irrigation requires a great deal of physical strength and stamina, as Manzanera-Ruiz et al. (2016) describe:

> *In order to irrigate the crops, water has to be carried in buckets from the nearest well, and the task of watering requires great physical strength. According to oral history, this task can take up to five hours a day. In this situation, water becomes an important resource, which has traditionally been controlled by men.* (Manzanera-Ruiz et al. 2016)

The physical requirements of certain jobs can also be a way to exclude women from those jobs, even when some women can do the job. For example, Koomson (2017) describes discrimination based on perceptions of gender differences in strength:

> *In the small-scale gold mines in the Talensi district, physical factors emanate from the idea that women are not strong enough to perform tasks that take place in the pit, such as digging and blasting. As a result, even though there is no hard and fast rule preventing women from working in certain kinds of jobs, stories about pit tasks suggest that the conditions in mining pits are too dangerous for women. The physical "difference" between what men and women can do is generally inferred from the physical characteristics associated with men and women.* (Koomson 2017)

Summary

Collectively, issues of time burden and work-life conflict repeatedly emerge as impediments to women's economic empowerment throughout the studies. Gender norms are strong in assigning women roles for cooking, child rearing and other household tasks. The studies suggest that these gender-assigned tasks are rarely adjusted when women take on work roles.

Some studies point to the physical toll of adding the work roles to the home roles, noting that some women choose not to engage in some work activities because that toll is too high or that others suffer from the physical tolls of that extra work. Studies examining women's involvement in the mining industry also note discrimination against women for taking maternity leave and the need for mothers to leave their children with extended family and kin since the mines are often found in remote locations far from the village where the family lives.

3.2.7 OTHER

Evidence to support the importance of other factors affecting women's labour market participation is provided by ten studies: four high quality (1,7,17,18) and six medium quality (2,5,10,11,12,15). Types of factors included here relate to: socioeconomic status of individuals in four studies (10,12,17,18), corruption in five studies (2,7,11,15,18), and transportation in three studies (1,5,18). The evidence here speaks to structural issues and their differential impacts on women. The studies include both low income and middle income countries, and they explore the commercial agriculture, trade and mining industries. However, whereas studies focused on agriculture tend to dominate in other analytical themes, the trade and mining sectors are more represented here.

The theme of differences by socioeconomic status was discussed in studies conducted in sub-Saharan Africa, Asia, and LatinAmerica. Corruption was raised as an issue in studies conducted in sub-Saharan Africa, but not in the one study examining communities in South Asia and Latin America. Transportation was not discussed in relation to mining, was only evidenced in sub-Saharan African communities, and was not evident in middle income countries or those characterised by aging fertility.

Table 9. Analytic Theme Summary Description for Other Factors (10 studies)

Theme (studies)	Description
Socioeconomic status of individuals (n=4; high quality: 17,18; medium quality: 10,12)	Description: Includes discussion of ways that higher socioeconomic status can help women overcome gender norms and provide resources to reduce the time burden

Theme (studies)	Description
	household duties and child care; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=4), East Asia (n=1), South Asia (n=1), Latin America (n=1) Countries: Ghana (n=2), India (n=1), Kenya (n=1), Mexico (n=1), Nepal (n=1), Nicaragua (n=1), Nigeria (n=1), Tanzania (n=1), Uganda (n=1)
Corruption (n=5; high quality: 7,18; medium quality: 2,11,15)	Description: Includes discussion of ways that government officials impede the enforcement of or violate existing laws in ways that impede women's participation in paid work activities; documented in agriculture, trade, mining Regions[1]: Sub-Saharan Africa (n=5), East Asia (n=1) Countries: Dem. Rep. of the Congo (n=1), Ghana (n=2), Sierra Leone (n=1), Thailand (n=1), Zimbabwe (n=1)
Transportation (n=3; high quality: 1,18; medium quality: 5)	Description: Includes discussion of transportation safety, transportation infrastructure, and ways that technology can minimise the need for transportation; documented in agriculture and trade Regions[1]: Sub-Saharan Africa (n=3) Countries: Ghana (n=1), Nigeria (n=2)

Notes: More detailed information may be found in Appendix 13. Study numbers align with this appendix as well as Table 1. Regional attribution provides some indication of breadth of the evidence, but studies are conducted within particular communities and are not meant to be representative even within countries.

Socioeconomic Status of Individuals

Two medium-quality (Jones et al. 2012, Koomson 2017) and two high-quality studies (Ugwu et al. 2016, Wrigley-Asante 2013) discuss the idea that a higher socioeconomic status can facilitate women's participation in the labour force and economic empowerment. Jones (2012) describes how earning money can improve gender relations and increase self-esteem and status within the household and community.

This idea is similar to an earlier discussion of the study by Afolabi (2015) that described how women working in non-traditional sectors it can actually change the gender norms relating to the acceptability of women working in those sectors. Another mechanism through which higher socioeconomic status can facilitate women's economic empowerment is the ability to hire others to help with household tasks, thus decreasing the time burden (Ugwu et al. 2016). Koomson (2017) focuses on how poverty can be a barrier to women's economic empowerment, because it reduces the opportunities for women to work elsewhere.

Corruption

This theme was discussed in two high-quality (Darkwah 2002, Wrigley-Asante 2013) and three medium-quality studies (Akiwumi 2011, Kelly et al. 2014, Mutopo 2011). The main idea that emerged from this theme is that corruption supports those who are already in control and ignores women and other marginalised populations. Kelly (2014) provides one example from the mining sector:

> *Local authorities, mining cooperatives and armed groups are all seen* [by participants] *as part of the same entrenched system, which does not represent women or other marginalized groups such as the displaced and disabled. Participants shared similar opinions on local political economies, describing them as being rampant with corruption and nepotism.* (Kelly 2014)

Mutopo (2011) describes similar corruption in the trading sector:

> *Harassment by government officials was the most rampant challenge that cross-border traders described, and the women noted that various government officials often demanded both official and unofficial payments from all categories of traders, either male or female traders. However, the women perceived themselves to be more vulnerable because they travelled frequently due to dealing in perishable goods compared to men who, it was noted, tended to deal in less-perishable goods and travelled less frequently.* (Mutopo 2011)

Transportation

This theme was discussed in two high-quality (Afolabi 2015, Wrigley-Asante 2013) and one medium-quality study (Boateng et al. 2014). Three different mechanisms linking transportation to women's economic empowerment were identified by these studies. Afolabi (2015) discussed how access to safe transportation was important for women's economic empowerment, especially when women were required to travel between farm lands and home. Boateng et al. (2014) focused on the role of mobile communication in reducing the need for women in the trading sector to travel, which is viewed as costly and risky. Wrigley-Asante (2013) focused on

the barriers that poor transportation infrastructure created for women traders both by increasing the costs of trading and women's time burden.

Summary

The studies we examined identified corruption and transportation as some other factors to consider as impediments to women's economic empowerment. Some of the studies also suggested that coming from a higher socioeconomic status family may facilitate women's economic empowerment. In addition, when working increases the socioeconomic status of women, this may create a virtuous feedback loop, promoting women's empowerment by helping to change entrenched gender norms that will further support the women's ability to participate in high-productivity sectors of the economy.

4 DISCUSSION AND CONCLUSIONS

While the initial conceptual framework (Figure 1) provided a useful starting point for this review's conceptual clarity and analytic focus, we incorporated fresh learning into an updated version (see Figure 5 below) as a result of the findings from this systematic review. It is important to note that as a systematic review, our synthesis was not designed to test specific broad hypotheses (though some included studies did test hypotheses within a specific context). Rather, we sought to identify evidence-based barriers and facilitators.

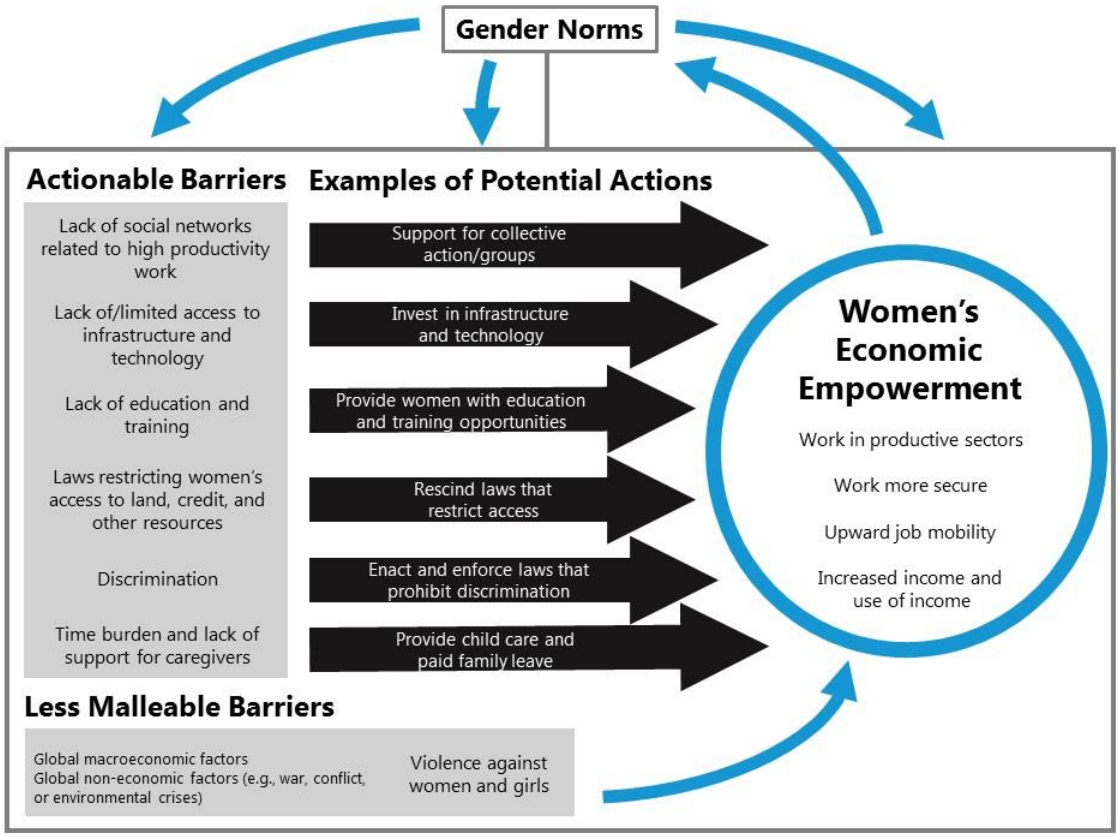
There are three main differences between our revised framework and the initial framework. First, we highlight the overarching importance of gender norms that was prominent in the vast majority of studies we reviewed. Specifically, the framework depicts the pathways through which gender norms directly impact women's economic empowerment outcomes as well as the indirect impact on women's economic empowerment through effects on women's access to resources and training and through undermining the effectiveness of potential actions. Second, to facilitate a policy conversation we differentiate between barriers that are easier to change through the implementation of policies or programmes (defined as 'actionable') and those that are less malleable or slower to change. Third, we provide examples from the qualitative studies we reviewed of potential actions that could overcome barriers and increase women's economic empowerment.

In comparison to the companion quantitative systematic review by Langer et al. (2018), which focuses on interventions to improve women's likelihood to work, barriers identified in this review address more foundational issues that arguably require longer time horizons. For example, influencing changes in gender norms that restrict women's income-generating activities outside home is likely to be a more time-consuming process than improving their technical skills.

Given the different methodological focus of the two systematic review studies (experimental and quasi-experimental impact evaluations versus qualitative studies), it is interesting to note the similarities in the barriers to women's empowerment that are identified. Gender norms and access to credit are themes in both studies.

Our review's theme on technical, business and management skills aligns Langer et al.'s (2018) review of interventions related to job services, training, soft skills and so on, all of which contribute to enabling women to negotiate better salaries and working conditions suitable to achieving better outcomes. Similarly, our review highlights the critical role of macroeconomic factors in shaping women's access to economic opportunities within economies. In addition, both reviews find that the clear majority of literature, whether focused on training interventions or broader set of measures, aims to enable women's horizontal movement into better paying jobs, with only a handful of studies focused on upward growth in organisational bureaucracies.

Figure 5. Revised Conceptual Framework



Policy Implications

We highlight four broad policy-relevant lessons from the synthesis of findings from our 18 studies. First, social norms about gender (that is, gender norms) are important barriers to

women's economic empowerment. Norms affect women's economic empowerment directly through the roles that they allow women to play. This pathway is reflected in our revised diagram as an arrow that goes directly from gender norms to women's economic empowerment.

Gender norms based on gender stereotypes also affect women's economic empowerment indirectly in that they can reinforce existing barriers and reduce access to land, credit, technology and training that could facilitate women's empowerment. This pathway is indicated by the arrow that goes from gender norms to barriers. Finally, norms can undermine specific policy actions such as changes in laws regarding who can own land or whether women, in practice, have access to maternity leave. Many of our studies indicated that even though laws are enacted, they are either not enforced or women don't know about the laws, and this results in the perpetuation of the status quo based on current norms.

There is also some evidence that norms can be changed over time when women are observed to participate in non-traditional jobs. For example, Afolabi (2015) shows that when men migrated to the cities, women got access to land and became involved in cash crop production. This behaviour overcame *'some of these traditional gender divisions and gender segregation in agricultural labour... and [incurred] recognition of their status as farmers.'* Manzanera-Ruiz et al.'s (2016) study of women in cash production in northern Tanzania similarly found that when women were able to contribute financially, they were also able to influence farming and household decisions. This type of outcome is represented in our framework diagram by a feedback loop going from gender norms to women's empowerment and from women's empowerment to gender norms.

Second, global macroeconomic factors (for example, economic liberalisation, multinational investments) or other external phenomena that affect the economy (for example, global warming and environmental degradation) can affect women's empowerment both positively and negatively. In some cases, external forces have a positive effect, such as when they encourage men to move to the cities for better economic opportunities and leave the agricultural land for women to farm. In other cases, the external forces can displace men in such a way that women are further crowded out and marginalised (for example, Fröcklin et al. 2014, Akiwumi 2011, Chandra et al. 2017). In many cases, when men can't provide income for the household, women are further burdened by both having to find a way to provide income and continue their household responsibilities.

In addition, economic (that is, market) liberalisation doesn't always lead to liberalisation of gender norms—rather, it often further exacerbates the precarious situation of those who are most vulnerable, in particular, women. On the other hand, economic liberalisation provides some opportunities through commercial agriculture and trade for women to increase their economic empowerment, especially if there are appropriate supports (for example, technology

or cooperatives). In our diagram, we represent these type of macro factors as barriers that that are less malleable to intervention, because policymakers mostly do not have direct control over factors such as global or national financial crises, changes in commodity prices, and impacts of natural disasters. Nonetheless, it is important for policymakers to identify and understand the potential impacts of these macro factors and the unintended consequences of broad macro policies that might be implemented for purposes other than women's empowerment.

Third, our framework highlights examples of actionable policies, interventions, and investments that can directly facilitate women's economic empowerment. Because the included studies are not experimental or quasi-experimental impact analyses, the results cannot be interpreted as causal. Rather, the studies illustrate the ways in which different policy interventions can operate differently across regions, sectors and other contexts. We do not provide recommendations but rather broad policy conclusions with illustrative examples consistent with a broader literature on women's economic empowerment.

The examples of potential actions included in Figure 5 were selected for two reasons. First, each example was cited in multiple of our 18 studies and in relation to multiple contexts. Second, the examples chosen are consistent with strategies commonly cited in the literature on women's economic empowerment (see section 1). For example, cooperatives and social networks can play a role in supporting women's access to credit, capital and land, and they can help women gain access to markets, information, education and leadership opportunities. Similarly, investments in infrastructure and technology can improve women's economic empowerment by reducing their time burden, increasing productivity, and helping them to acquire more connections to information, sellers or buyers. Our findings show that laws that prohibit discrimination, provide access to child care and paid maternity leave, and reduce barriers to land ownership and other resources also to be enforced, because without enforcement, the status quo is reinforced by existing gender norms.

Fourth, our synthesis of findings showed that there is heterogeneity both in the levels of women's economic empowerment and the ways in which changes in women's economic empowerment respond to external events and internal investments. In particular, countries have unique historical, economic and cultural differences (for example, religion, customs, and other gender norms) that affect women's empowerment. Akter et al. (2017) suggest that some of the differences in gender equity in agricultural roles in Sub Saharan Africa compared to Southeast Asia can be partly explained by differences in the type of agriculture production in each region. For example, the small scale rice farming in Southeast Asia is more conducive to husbands and wives working together in the same fields compared to sub-Saharan African countries where men and women are more likely to farm separate crops on separate plots of land. Women's empowerment also seems to differ by sector, with more barriers (both legal and social) for mining compared to trade and commercial agriculture. Women's empowerment also differs by socioeconomic status (SES), with higher SES women having the resources to overcome

many of the barriers to women's empowerment such as the time burden of caregiving and access to education and training.

Contributions and Limitations of this Study

This review's focus on qualitative research exploring the barriers and facilitators of women's economic empowerment adds to findings from a recent quantitative systematic review on the topic (Langer et al. 2018). That review focused solely on experimental and quasi-experimental studies of interventions that were intended to increase women's labour force participation and income. That research design leads to a scope that is more narrowly focused on causal inference, but has a high degree of internal validity. In contrast, our systematic review of qualitative studies of women's empowerment focused on a wide array of barriers and facilitators and is thus broader in scope than Langer et al. (2018).

The qualitative data also enables us to uncover findings that are deeper and more nuanced than is possible from a study based on quantitative data. For example, quantitative studies have discussed the role and importance of cooperatives, but the qualitative studies in this review are able to describe some nuanced barriers to women participating in cooperatives such as husband's disapproval, lack of paying dues and poor leadership. The nature of qualitative data however leads to conclusions that are exploratory rather than confirmatory.

This review also builds on a previous literature review (Peters et al. 2016) that was derived from a broader array of literature on the barriers and facilitators of women's empowerment. Because of the nature of the current systematic review – which was restricted to studies focusing on qualitative methods, lower-income countries, specific sectors, and a minimum quality level to ensure a focused review – the 18 studies examined here tended to be somewhat narrower in scope than those included in the earlier study. However, the qualitative data in the current study also provides greater depth and nuance about the context of women's lives.

Many of the same facilitators and barriers came up in both studies (for example, access to credit and land, macroeconomic factors, lack of infrastructure and technology, discrimination and gender-based violence). However, this review provides more detail about the pathways and mechanisms through which these factors operate to affect women's economic empowerment. In addition, the qualitative studies included in this review provide a plethora of illustrations that highlight the importance of social norms and describe both direct and indirect pathways through which social norms can affect women's economic empowerment. This review also identifies the existence of a feedback loop in that strategies that increase women's ability to participate in the labour market and earn income can change gender relations, thus enhancing women's economic empowerment and subsequently changing gender norms even more. This type of feedback effect is more difficult to identify in standard quantitative studies.

Our findings complement broader policy discussions around ongoing barriers to women's economic empowerment and efforts to identify facilitators to overcome them. For example, in 2017 the UN Secretary General formed a high-level panel on women's economic empowerment to undertake consultations throughout the globe on this issue and make concrete recommendations for improving women's conditions. After recognising the gravity of women's lack of economic empowerment, the panel identified legal barriers and social norms as being systematic challenges perpetuating the status quo. It also called for eliminating violence against women, reducing burdens of unpaid care work, equitable access to financial services and technologies, and changing government and private sector procurement practices to promote women owned business and so on. Overall, these findings resonate with this report's main conclusions.

One limitation of this review is its potential lack of generalisability. This review is based on only 18 studies focused on only three sectors. Most of the studies focused on women who were very disadvantaged and struggling just to barely meet a subsistence level, and the sectors that were included were most relevant to this population. This focus was partly a consequence of our decision to narrow the scope of the review and only include studies that focused on low-income and lower-middle-income countries. Thus, this review provides deep knowledge about an important but selective group of women. This is certainly a distinguishing factor for this review, as compared to Langer et al. (2018) and Peters et al. (2016). It is important to note, however, that this review contains very little information that describes the experiences of more educated and middle-income women.

Research Gaps

The 18 studies in this review focus on the roles and experiences of women working in agriculture, trade and mining, most of whom are self-employed. None of the studies are direct evaluations of particular initiatives or interventions, but half examine the experiences of women in relation to a particular policy instrument or public service including trade liberalisation, land reform, corporate social responsibility, cooperative participation and support, producer's supports and access to mobile phones.

Although the studies are situated in 18 countries, they are focused on women, especially communities engaging in particular sectors without the intention of being representative. Thus, they provide important insights into facilitators and barriers to women's economic empowerment that women in primarily poor, rural areas experience, but this research does not allow us to compare the efficacy of facilitators or the relative difficulty of barriers either for the women in this study or women in other contexts. Instead, it provides a grounding for future research and considerations for policy. More research is needed to understand comparative differences in facilitators and contextual differences in barriers.

The most consistent theme we found is the influence of gender norms in either supporting a facilitator or constraining access to strategies that would otherwise be facilitators. Other research suggests that many factors can drive change in gender norms, including economic development, gendered migration patterns, women's access to education and technology, political and social mobilisation and legal reforms, among others (Marcus et al. 2014).

Further, gender norms governing key issues related to women's economic well-being – such as violence against women – are susceptible to intervention. However, there remain significant gaps in the evidence base for what drives gendered social norms and how they may be shifted to promote women's empowerment (Jewkes 2017). While an analysis of the drivers of gender norms is beyond the scope of this review, further research on this topic could usefully inform efforts to economically empower women.

Summary

In summary, this study provides a systematic review of 18 qualitative studies of the facilitators and barriers to women's economic empowerment in low and middle-income countries. By focusing on both actionable factors and less malleable factors, the review and the accompanying revised framework provide policymakers with a guide on how to think about policies, interventions and investments that could enhance women's economic empowerment.

Specifically, our framework illustrates six actionable barriers:

1. Lack of social networks related to high productivity work (*example of potential action:* support for collective action/groups)
2. Lack of or limited access to instrastructure and technology (*example of potential action:* invest in infrastructure and technology)
3. Lack of education and training (*example of potential action:* provide women education and training opportunities)
4. Laws restricting women's access to credit, land and capital (*example of potential action:* rescind laws that restrict access)
5. Discrimination (*example of potential action:* enact and enforce laws that prohibit discrimination)
6. Time burden and lack of support for caregivers (*example of potential action:* provide child care and paid family leave)

Note, however, that the actionable barriers listed above are only illustrative of the large number of potential detailed, and context-specific, inventions that were described in this heterogeneous group of studies. We also identify three barriers that are somewhat less malleable:

1. Global macroeconomic factors
2. Global non-economic factors (for example, war, conflict or environmental crises)

3. Violence against women and girls

This study highlights the importance of understanding how interventions might be more or less likely to work in different contexts and the importance of gender norms as a barrier that could undermine the success of specific interventions. This information could help inform the design and implementation of policies and interventions designed to increase women's economic empowerment and success in the labour market.

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6 APPENDICES

APPENDIX 1. PRISMA CHECKLIST

Section/topic	#	Checklist item	Report status
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	Title page
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	Executive summary
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	Section 1.1
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes and study design (PICOS).	Section 1.4
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g. web address) and, if available, provide registration information including registration number.	N/A
Eligibility criteria	6	Specify study characteristics (e.g. PICOS, length of follow-up) and report characteristics (e.g. years considered, language, publication status) used as criteria for eligibility, giving rationale.	Section 2.2
Information sources	7	Describe all information sources (e.g. databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	Section 2.3
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix 5
Study selection	9	State the process for selecting studies (i.e. screening, eligibility, included in systematic review, and if applicable, included in the meta-analysis).	Section 2.3
Data collection process	10	Describe method of data extraction from reports (e.g. piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	Section 2.5
Data items	11	List and define all variables for which data were sought (e.g. PICOS, funding sources) and any assumptions and simplifications made.	Section 2.5
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level) and how this information is to be used in any data synthesis.	Section 2.7
Summary measures	13	State the principal summary measures (e.g. risk ratio, difference in means).	Section 3.2
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g. I^2) for each meta-analysis.	Section 3.2

Section/topic	#	Checklist item	Report status
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g. publication bias, selective reporting within studies).	Section 2.4
Additional analyses	16	Describe methods of additional analyses (e.g. sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	Section 3.2
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Section 3.1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g. study size, PICOS, follow-up period) and provide the citations.	Section 3.1
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	Section 3.1
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Section 3.2
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	Section 3.2
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	Section 3.2
Additional analysis	23	Give results of additional analyses, if done (e.g. sensitivity or subgroup analyses, meta-regression [see Item 16]).	Section 3.2
DISCUSSION			
Summary of evidence	24	Summarise the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g. healthcare providers, users and policymakers).	Section 4
Limitations	25	Discuss limitations at study and outcome level (e.g. risk of bias), and at review-level (e.g. incomplete retrieval of identified research, reporting bias).	Section 4
Conclusions	26	Provide a general interpretation of the results in the context of other evidence and implications for future research.	Section 4
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g. supply of data); role of funders for the systematic review.	Acknowled gements

Source: Moher D, Liberati A, Tetzlaff J et al. The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 6(7): e1000097. doi:10.1371/journal.pmed1000097

APPENDIX 2. MAPPING TOOL

MAPPING CATEGORY	CLASSIFICATIONS
i. Type of Study	Qualitative Only Mixed-methods
ii. Country Classification (Select all that apply)	Low income Lower-middle income Upper-middle income
iii. Sex of Study Participants	Females only or primarily female Female and male
iv. Age Group of Participants (Select all that apply)	Children and young people only Adults only Older people only Age focus not specified
v. Factor (Select all that apply)	Enabler or Barrier to Participation Economic growth Transportation Infrastructure Technology Child care Other Legal environment Informality of work Violence Other
vi. Sector (select all that apply)	Accommodation and food Business administration services Commercial agriculture Energy (includes mining and quarrying, electricity, water and gas supply) Finance Trade Transportation

APPENDIX 3. DATA EXTRACTION TOOL

CATEGORY	CLASSIFICATIONS
i. Abstract/Summary	Highlight the abstract/summary.
ii. What is the form of publication?	Journal article Grey literature Master thesis PhD thesis Other (specify type in the info tab)
iii. What is the appraised quality level of the study?	High Medium
iv. Is there any disclamation of study funding?	Yes No
v. What is the income level of the study countries? (select all that apply)	Low-income country Lower-middle income country Upper-middle income country
vi. What is the region of study countries?	Sub-Saharan Africa East Asia South Asia Latin America
vii. What is the fertility level of study countries?	High Declining Aging society
viii. What is the GAP level of study countries?	Better than global average Worse than global average NA
ix. What is the GII level of study countries?	Better than global average Worse than global average NA
x. What is the number of study participants? (select all that apply)	30 or less More than 30 Number of study participants not reported Multiple modes of data collection
xi. What is the age of study participants? (select all that apply)	Adults (as specified in the paper) Older people (as specified in the paper) Children and younger people (as specified in the paper) Participants' age is not reported
xii. What is the sex of study participants?	Females only or primarily female Females and males Sex of study participants is not reported
xiii. What is the marital status of study participants? (select all that apply)	Married or mostly married Divorced Widowed

		Unmarried Separated Not provided
xiv.	What is the family unit of study participants?	Describe family unit (info box) Not provided
xv.	Is any special population included in the study?	Yes, people with disabilities Yes, people in conflict/forced migration settings Yes, other No
xvi.	What best describes the study design (select all that apply)	Ethnography Single case study Multi-case study Action research Community-based participatory research Phenomenology Grounded theory Feminist research Systematic/literature review with qualitative component Other Unclear/not stated
xvii.	What are the data collection methods? (select all that apply)	Interviews Focus groups Surveys Observations Case Management/case file reviews Document collection Website identification Other (please specify in the info tab) Unclear/not stated
xviii.	Methods (Detailed)	Highlight author's description of methods of data collection and data analysis methods described by the author
xix.	What are the study outcomes?	Wage labour participation Business ownership/self-employment Upward job mobility Other economic empowerment (e.g. education, control of resources) Other empowerment (e.g. health, gender relations)
xx.	What is the sector of the study (select all that apply)	Accommodation and food Business admin services Commercial agriculture Energy Trade Transportation
xxi.	Themes	**Gender norms, culture and laws** Gender norms

	Violence and sexual harassment Gender-related laws and regulations Discrimination **Access to resources** Access to credit and capital Access to land **Networks and organisations** Formal cooperatives Social and kinship networks Firm and organisational strategies External support (government or organisations) **Technology, skills and education** Technology Technology, business and management skills **Global macro factors (economic and non-economic)** Non-gender-related macroeconomic factors Male employment patterns Environmental degradation **Unpaid care and women's time poverty** Work-life conflict including time burden Physical demands and health needs **Other** Socioeconomic status of individuals Corruption Transportation
xxii. Results and Conclusion	Highlight author's description of results Highlight author's conclusions Highlight author's description of study limitations Coder's description of limitations of study

APPENDIX 4. LIST OF LOW- AND MIDDLE-INCOME COUNTRIES

This table was created based on data from World Bank country and landing groups (2017).[7]

Country	Income	Region
Afghanistan	Low Income	South Asia
Benin	Low Income	Sub-Saharan Africa
Burkina Faso	Low Income	Sub-Saharan Africa
Burundi	Low Income	Sub-Saharan Africa
Central African Republic	Low Income	Sub-Saharan Africa
Chad	Low Income	Sub-Saharan Africa
Comoros	Low Income	Sub-Saharan Africa
Congo, Democratic Republic of	Low Income	Sub-Saharan Africa
Eritrea	Low Income	Sub-Saharan Africa
Ethiopia	Low Income	Sub-Saharan Africa
Gambia, The	Low Income	Sub-Saharan Africa
Guinea	Low Income	Sub-Saharan Africa
Guinea-Bissau	Low Income	Sub-Saharan Africa
Haiti	Low Income	Latin America & Caribbean
Korea, Dem. People's Republic of	Low Income	East Asia & Pacific
Liberia	Low Income	Sub-Saharan Africa
Madagascar	Low Income	Sub-Saharan Africa
Malawi	Low Income	Sub-Saharan Africa
Mali	Low Income	Sub-Saharan Africa

[7] A full list of countries can be accessed at https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.

Mozambique	Low Income	Sub-Saharan Africa
Nepal	Low Income	South Asia
Niger	Low Income	Sub-Saharan Africa
Rwanda	Low Income	Sub-Saharan Africa
Senegal	Low Income	Sub-Saharan Africa
Sierra Leone	Low Income	Sub-Saharan Africa
Somalia	Low Income	Sub-Saharan Africa
South Sudan	Low Income	Sub-Saharan Africa
Tanzania	Low Income	Sub-Saharan Africa
Togo	Low Income	Sub-Saharan Africa
Uganda	Low Income	Sub-Saharan Africa
Zimbabwe	Low Income	Sub-Saharan Africa
Angola	Lower Middle Income	Sub-Saharan Africa
Armenia	Lower Middle Income	Europe & Central Asia
Bangladesh	Lower Middle Income	South Asia
Bhutan	Lower Middle Income	South Asia
Bolivia	Lower Middle Income	Latin America & Caribbean
Cabo Verde	Lower Middle Income	Sub-Saharan Africa
Cambodia	Lower Middle Income	East Asia & Pacific
Cameroon	Lower Middle Income	Sub-Saharan Africa
Congo, Democratic Republic of	Lower Middle Income	Sub-Saharan Africa
Côte d'Ivoire	Lower Middle Income	Sub-Saharan Africa
Djibouti	Lower Middle Income	Middle East & North Africa
Egypt, Arab Republic of	Lower Middle Income	Middle East & North Africa
El Salvador	Lower Middle Income	Latin America & Caribbean

Georgia	Lower Middle Income	Europe & Central Asia
Ghana	Lower Middle Income	Sub-Saharan Africa
Guatemala	Lower Middle Income	Latin America & Caribbean
Honduras	Lower Middle Income	Latin America & Caribbean
India	Lower Middle Income	South Asia
Indonesia	Lower Middle Income	East Asia & Pacific
Jordan	Lower Middle Income	Middle East & North Africa
Kenya	Lower Middle Income	Sub-Saharan Africa
Kiribati	Lower Middle Income	East Asia & Pacific
Kosovo	Lower Middle Income	Europe & Central Asia
Kyrgyz Republic	Lower Middle Income	Europe & Central Asia
Lao People's Democratic Republic	Lower Middle Income	East Asia & Pacific
Lesotho	Lower Middle Income	Sub-Saharan Africa
Mauritania	Lower Middle Income	Sub-Saharan Africa
Micronesia, Federated States of	Lower Middle Income	East Asia & Pacific
Moldova	Lower Middle Income	Europe & Central Asia
Mongolia	Lower Middle Income	East Asia & Pacific
Morocco, Kingdom of	Lower Middle Income	Middle East & North Africa
Myanmar	Lower Middle Income	East Asia & Pacific
Nicaragua	Lower Middle Income	Latin America & Caribbean
Nigeria	Lower Middle Income	Sub-Saharan Africa
Pakistan	Lower Middle Income	South Asia
Papua New Guinea	Lower Middle Income	East Asia & Pacific
Philippines	Lower Middle Income	East Asia & Pacific
São Tomé and Principe	Lower Middle Income	Sub-Saharan Africa

Solomon Islands	Lower Middle Income	East Asia & Pacific
Sri Lanka	Lower Middle Income	South Asia
Sudan	Lower Middle Income	Sub-Saharan Africa
Swaziland	Lower Middle Income	Sub-Saharan Africa
Syrian Arab Republic	Lower Middle Income	Middle East & North Africa
Tajikistan	Lower Middle Income	Europe & Central Asia
Timor-Leste	Lower Middle Income	East Asia & Pacific
Tunisia	Lower Middle Income	Middle East & North Africa
Ukraine	Lower Middle Income	Europe & Central Asia
Uzbekistan	Lower Middle Income	Europe & Central Asia
Vanuatu	Lower Middle Income	East Asia & Pacific
Vietnam	Lower Middle Income	East Asia & Pacific
West Bank and Gaza	Lower Middle Income	Middle East & North Africa
Yemen, Republic of	Lower Middle Income	Middle East & North Africa
Zambia	Lower Middle Income	Sub-Saharan Africa
Albania	Upper Middle Income	Europe & Central Asia
Algeria	Upper Middle Income	Middle East & North Africa
American Samoa	Upper Middle Income	East Asia & Pacific
Argentina	Upper Middle Income	Latin America & Caribbean
Azerbaijan	Upper Middle Income	Europe & Central Asia
Belarus	Upper Middle Income	Europe & Central Asia
Belize	Upper Middle Income	Latin America & Caribbean
Bosnia and Herzegovina	Upper Middle Income	Europe & Central Asia
Botswana	Upper Middle Income	Sub-Saharan Africa
Brazil	Upper Middle Income	Latin America & Caribbean

Bulgaria	Upper Middle Income	Europe & Central Asia
China	Upper Middle Income	East Asia & Pacific
Colombia	Upper Middle Income	Latin America & Caribbean
Costa Rica	Upper Middle Income	Latin America & Caribbean
Croatia	Upper Middle Income	Europe & Central Asia
Cuba, Republic of	Upper Middle Income	Latin America & Caribbean
Dominica	Upper Middle Income	Latin America & Caribbean
Dominican Republic	Upper Middle Income	Latin America & Caribbean
Ecuador	Upper Middle Income	Latin America & Caribbean
Equatorial Guinea	Upper Middle Income	Sub-Saharan Africa
Fiji	Upper Middle Income	East Asia & Pacific
Gabon	Upper Middle Income	Sub-Saharan Africa
Grenada	Upper Middle Income	Latin America & Caribbean
Guyana	Upper Middle Income	Latin America & Caribbean
Iran, Islamic Republic of	Upper Middle Income	Middle East & North Africa
Iraq, Republic of	Upper Middle Income	Middle East & North Africa
Jamaica	Upper Middle Income	Latin America & Caribbean
Kazakhstan	Upper Middle Income	Europe & Central Asia
Lebanon	Upper Middle Income	Middle East & North Africa
Libya, State of	Upper Middle Income	Middle East & North Africa
Macedonia, Republic of North	Upper Middle Income	Europe & Central Asia
Malaysia	Upper Middle Income	East Asia & Pacific
Maldives	Upper Middle Income	South Asia
Marshall Islands	Upper Middle Income	East Asia & Pacific
Mauritius	Upper Middle Income	Sub-Saharan Africa

Mexico	Upper Middle Income	Latin America & Caribbean
Montenegro	Upper Middle Income	Europe & Central Asia
Namibia	Upper Middle Income	Sub-Saharan Africa
Nauru	Upper Middle Income	East Asia & Pacific
Panama	Upper Middle Income	Latin America & Caribbean
Paraguay	Upper Middle Income	Latin America & Caribbean
Peru	Upper Middle Income	Latin America & Caribbean
Romania	Upper Middle Income	Europe & Central Asia
Russian Federation	Upper Middle Income	Europe & Central Asia
Samoa	Upper Middle Income	East Asia & Pacific
Serbia	Upper Middle Income	Europe & Central Asia
South Africa	Upper Middle Income	Sub-Saharan Africa
Saint Lucia	Upper Middle Income	Latin America & Caribbean
Saint Vincent and the Grenadines	Upper Middle Income	Latin America & Caribbean
Suriname	Upper Middle Income	Latin America & Caribbean
Thailand	Upper Middle Income	East Asia & Pacific
Tonga	Upper Middle Income	East Asia & Pacific
Turkey	Upper Middle Income	Europe & Central Asia
Turkmenistan, Republic of	Upper Middle Income	Europe & Central Asia
Tuvalu	Upper Middle Income	East Asia & Pacific
Venezuela, Bolivarian Republic of	Upper Middle Income	Latin America & Caribbean

APPENDIX 5. SEARCH TERMS

Low- and Middle-Income Countries

(Afghanistan OR Albania OR Algeria OR Angola OR Antigua OR Barbuda OR Argentina OR Armenia OR Aruba OR Azerbaijan OR Bahrain OR Bangladesh OR Barbados OR Benin OR Byelarus OR Byelorussian OR Belarus OR Belorussian OR Belorussia OR Belize OR Bhutan OR Bolivia OR Bosnia OR Herzegovina OR Hercegovina OR Botswana OR Brasil OR Brazil OR Bulgaria OR "Burkina Faso" OR "Burkina Fasso" OR "Upper Volta" OR Burundi OR Urundi OR Cambodia OR "Khmer Republic" OR Kampuchea OR Cameroon OR Cameroons OR Cameron OR Camerons OR "Cape Verde" OR "Central African Republic" OR CAR OR Chad OR Chile OR China OR Colombia OR Comoros OR "Comoro Islands" OR Comores OR Mayotte OR Congo OR Zaire OR "Costa Rica" OR "Cote d'Ivoire" OR "Ivory Coast" OR Croatia OR Cuba OR Cyprus OR Czechoslovakia OR "Czech Republic" OR Slovakia OR "Slovak Republic" OR Djibouti OR "French Somaliland" OR Dominica OR "Dominican Republic" OR "East Timor" OR "East Timur" OR "Timor Leste" OR Ecuador OR Egypt OR "United Arab Republic" OR "El Salvador" OR Eritrea OR Estonia OR Ethiopia OR Fiji OR Gabon OR "Gabonese Republic" OR Gambia OR Gaza OR Georgia OR Ghana OR "Gold Coast" OR Greece OR Grenada OR Guatemala OR Guinea OR Guam OR Guiana OR Guyana OR Haiti OR Honduras OR Hungary OR India OR Maldives OR Indonesia OR Iran OR Iraq OR Jamaica OR Jordan OR Kazakhstan OR Kazakh OR Kenya OR Kiribati OR Korea OR Kosovo OR Kyrgyzstan OR Kirghizia OR "Kyrgyz Republic" OR Kirghiz OR Kirgizstan OR "Lao PDR" OR Laos OR Latvia OR Lebanon OR Lesotho OR Basutoland OR Liberia OR Libya OR Lithuania OR Macedonia OR Madagascar OR "Malagasy Republic" OR Malaysia OR Malaya OR Malay OR Sabah OR Sarawak OR Malawi OR Nyasaland OR Mali OR Malta OR "Marshall Islands" OR Mauritania OR Mauritius OR "Agalega Islands" OR Mexico OR Micronesia OR "Middle East" OR Moldova OR Moldovia OR Mongolia OR Montenegro OR Morocco OR Mozambique OR Mocambique OR Myanmar OR Myanma OR Burma OR Namibia OR Nepal OR "Netherlands Antilles" OR "New Caledonia" OR Nicaragua OR Niger OR Nigeria OR "Northern Mariana Islands" OR Oman OR Muscat OR Pakistan OR Palau OR Palestine OR Panama OR Paraguay OR Peru OR Philippines OR Philipines OR Phillipines OR Phillippines OR Portugal OR "Puerto Rico" OR Romania OR Rumania OR Roumania OR Russia OR Russian OR Rwanda OR Ruanda OR "Saint Kitts" OR "St Kitts" OR Nevis OR "Saint Lucia" OR "St Lucia" OR "Saint Vincent" OR "St Vincent" OR Grenadines OR Samoa OR "Samoan Islands" OR "Navigator Island" OR "Navigator Islands" OR "Sao Tome" OR Senegal OR Serbia OR Montenegro OR Seychelles OR "Sierra Leone" OR Slovenia OR "Sri Lanka" OR Ceylon OR "Solomon Islands" OR Somalia OR Sudan OR Suriname OR Surinam OR Swaziland OR Syria OR Tajikistan OR Tadzhikistan OR Tadjikistan OR Tadzhik OR Tanzania OR Thailand OR Togo OR "Togolese Republic" OR Tonga OR Trinidad OR Tobago OR Tunisia OR Turkey OR Turkmenistan OR Turkmen OR Uganda OR Ukraine OR Uruguay OR "USSR" OR "Soviet Union" OR "Union of Soviet Socialist Republics" OR Uzbekistan OR Uzbek OR Vanuatu OR "New Hebrides" OR Venezuela OR Vietnam OR "Viet Nam" OR "West Bank" OR Yemen OR Yugoslavia OR Zambia OR Zimbabwe OR "developing country" OR "developing countries" OR "developing nation" OR "developing nations" OR "developing world" OR "less-developed countr*" OR "less developed countr*" OR "less-developed world" OR "less-

developed world" OR "lesser-developed countr*" OR "lesser developed countr*" OR "lesser-developed nation" OR "lesser developed nation*" OR "lesser developed world" OR "lesser-developed world" OR "under-developed countr*" OR "under developed countr*" OR "under-developed nation*" OR "under developed nation*" OR "under-developed world" OR "underdeveloped world" OR "under developed world" OR "underdeveloped countr*" OR "under-developed countr*" OR "Under developed countr*" OR "under developed nation*" OR "under-developed nation*" OR "underdeveloped nation*" OR "lower middle income countr*" OR "lower middle-income countr*" OR "lower middle income nation*" OR "lower middle-income nation*" OR "upper middle-income countr*" OR "upper middle income countr*" OR "upper middle-income nation*" OR "upper middle income nation*" OR "low-income countr*" OR "low income countr*" OR "low-income nation*" OR "low income nation*" OR "lower income countr*" OR "lower-income countr*" OR "lower income nation*" OR "lower-income nation*" OR "Low- and Middle- Income countr*" OR "Low and Middle Income Countr*" OR "underserved country" OR "underserved countries" OR "underserved nation" OR "underserved nations" OR "underserved world" OR "under served country" OR "under served countries" OR "under served nation" OR "under served nations" OR "under served world" OR "deprived country" OR "deprived countries" OR "deprived nation" OR "deprived nations" OR "poor countries" OR "poor nation" OR "poor nations" OR "poor world" OR "poorer country" OR "poorer countries" OR "poorer nation" OR "poorer nations" OR "poorer world" OR "developing economy" OR "developing economies" OR "less developed economy" OR "less developed economies" OR "lesser developed economy" OR "lesser developed economies" OR "under developed economy" OR "under developed economies" OR "underdeveloped economy" OR "underdeveloped economies" OR "middle income economy" OR "middle income economies" OR "low income economy" OR "low income economies" OR "lower income economy" OR "lower income economies" OR lmic OR lmics OR "third world" OR "lami country" OR "lami countries" OR "transitional country" OR "transitional countries" OR (LMIC OR LMICs OR LIC OR LICs OR LMICs OR LMIC OR UMICs OR UMIC) OR ("khmer" AND "republic") OR ("cape" AND "verde") OR ("central" AND "african" AND "republic") OR Africa OR Asia OR Caribbean OR "West Indies" OR "South America" OR "Latin America" OR "Central America")

Women

(woman OR women OR women's OR female OR females OR "young women" OR girl OR girls OR gender OR girl's OR girls' OR mothers OR "young mother" OR mother OR wife OR wives OR "older girls" OR femini* OR maternal OR maternity OR daughter OR daughters)

Qualitative Studies

(qualitative OR "qualitative research" OR "qualitative study" OR "mixed-method*" OR "mixed method*" OR "descriptive research" OR ethnography OR "ethnographic research" OR "ethnological research" OR narrative* OR "case study" OR "case studies" OR "action research" OR "participatory research" OR (qualitative AND evaluation) OR "process evaluation" OR "implementation study" OR "grounded theory" OR phenomenolog* OR "feminist research" OR "naturalistic inquiry" OR interview* OR "focus group*" OR

(qualitative AND survey*) OR observations OR “observational analysis” OR “participant observation” OR “non-participant observation” OR audiorecording OR videorecording OR “audio recording” OR “video recording” OR “case management” OR “case file review*” OR “document collection” OR “website identification” OR meta-synthesis OR metasynthesis OR “systematic review”)

Sector

(“high-growth” OR “high growth” OR “high-productivity sector*” OR “high productive sector*” OR “growing sector*” OR “male-dominated” OR “male dominated” OR “commercial agriculture” OR energy OR mining OR quarrying OR electricity OR gas OR “water supply” OR trade OR transportation OR accommodation OR food OR “business admin*”)

Outcomes

(“economic empowerment” OR empowerment OR “economic opportunit*” OR “economic participation” OR “female-owned business” OR “female-owned enterprise*” OR “female-owned factor*” OR “female-owned industry” OR “women-owned business” OR “women-owned enterprise*” OR “women-owned factor*” OR “women-owned industry” OR “job insecurity” OR “job security” OR “job placement” OR “labour force participation” OR “labour market participation” OR “labour force participation” OR “labour market participation” OR “occupational mobility” OR “personal wealth” OR “wage differential*” OR “wage gap*” OR “work* condition*” OR “job quality” OR “formal enterprise*” OR “labour force” OR “labour market” OR “labour demand” OR “labour economy” OR “labour supply” OR “labour force” OR “labour market” OR “labour demand” OR “labour economy” OR “labour suppy” OR “small and medium-sized enterprise*” OR “small enterprise*” OR “medium enterprise* OR “wage labour” OR “wage labour” OR “business leadership” OR work* OR business OR career OR employment OR employee OR employability OR job OR profession* OR occupation OR “employment security”

OR “underemployment” OR “under-employment” OR “self-employ*” OR “self employ*” OR “own account work*” OR “own-account work*” OR “undeclared work*” OR “undocumented work*” OR “marginal work*” OR “casual work*” OR “domestic work*” OR “homebased work*” OR “home based work*” OR “home-based work*” OR “grey economy” OR “gray economy”

OR (informal AND (economy OR sector OR labour OR labour OR “wage labour” OR “wage labour” OR work* OR business OR career OR employment OR employee OR employability OR job OR profession* OR occupation OR enterprise* OR industry OR produc*))

OR ((pay* OR remuneration OR salar* OR benefits OR incentive* OR financial or money OR monetary OR reward* OR wage* OR bonus OR pension OR earning*) AND (change* OR increase* OR rise* OR augment* OR grow*))

OR ((career OR skill* OR work OR performance) AND (chang* OR increas* OR rise* OR rising OR rose OR rais* OR augment* OR grow* OR grew OR improv* OR gain* OR motivat* OR

promot* OR encourag* OR enhanc* OR boost* OR achiev* OR success* OR succeed* OR accomplish* OR thrive* OR thriving OR attain OR enhance OR upgrade OR progress*))

OR “vertical segregation” OR “occupational segregation” OR “labour market segregation” OR “labour market segregation” OR “employment segregation” OR “glass ceiling” OR “gender segregation” OR “sex segregation”)

APPENDIX 6. QUALITY APPRAISAL TOOL

		QUALITY APPRAISAL *For each criterion, rate the study 0 (does not meet), .5 (partially meets), or 1 (fully meets)*	**BIAS ASSESSMENT** *For each quality domain, describe any bias considerations*
Quality domain	**Quality criterion**	**Guidance and criteria for informing judgements**	**Within-study assessment**
1. RIGOUR IN SAMPLING	Q1a. Sampling strategy described	What locations are sampled? What organisations are contacted to help recruit respondents? Or what other strategies are used to recruit respondents? What types of respondents were sampled and what kind of information/perspective are they expected to contribute?	**B1. Bias considerations include** (look first at what authors indicate as limitations and then add on based on purpose and scope of overall review): <u>Individual Characteristics</u> - Gender - Age - Marital status - Child age/status <u>Community Characteristics</u> - Country (ies) - Other key characteristics (prevailing norms) <u>Work Characteristics</u> - Sector - Type/Nature of Work - Workplaces
	Q1b. Sampling strategy justified	Why were specific locations chosen? Why were specific types of respondents chosen? Why was the specific sampling strategy used (i.e. what are the strengths of the sampling strategy)?	
	Q1c. Sample characteristics presented	Are relevant characteristics of the sample presented in a table or in the narrative?	
2. RIGOUR IN DATA COLLECTION	Q2a. Steps to strengthen rigour in data	Was data collection comprehensive, flexible, and/or sensitive enough to provide a complete and/or	**B2. Bias considerations include** (look first at what authors

		QUALITY APPRAISAL *For each criterion, rate the study 0 (does not meet), .5 (partially meets), or 1 (fully meets)*	**BIAS ASSESSMENT** *For each quality domain, describe any bias considerations*
Quality domain	**Quality criterion**	**Guidance and criteria for informing judgements**	**Within-study assessment**
	collection described	vivid and rich description of people's perspectives and experiences (e.g. did the researchers spend sufficient time at the site/with participants? did they keep 'following up'? Was more than one method of data collection used?	indicate as limitations and then add on based on purpose and scope of overall review)**:** - ways of building trust - ways of addressing power differentials - ways of addressing language and culture
	Q2b. Steps taken to ensure consent and participation	Were steps taken to ensure that all participants were able and willing to contribute (e.g. processes for consent – language barriers, power relations between adults and children/young people?	
3. RIGOUR IN DATA ANALYSIS	Q3a. Evidence of careful analysis methods presented (e.g. using multiple coders, validation methods, qualitative software, or discussions of data validity)	Is there evidence of careful analysis methods? At a minimum, there should be a discussion of what the analysis method is and the steps that were taken to do the analysis. Note that not all methods require multiple coders. For example, ethnographic studies are often conducted by one person and involve 'thick description'. The highest rating should include a specific discussion of the steps that were taken to ensure the dependability, confirmability, and validity of the data and results.	**B3. Bias considerations include** (look first at what authors indicate as limitations and then add on based on purpose and scope of overall review)**:** - focus of analysis - exploration of diverse perspectives - guiding principles of interpretation
	Q3b. Balance of researcher preconceptions and emergent themes	Was the analysis balanced in the extent to which it was guided by preconceptions or by the data?	

		QUALITY APPRAISAL *For each criterion, rate the study 0 (does not meet), .5 (partially meets), or 1 (fully meets)*	**BIAS ASSESSMENT** *For each quality domain, describe any bias considerations*
Quality domain	**Quality criterion**	**Guidance and criteria for informing judgements**	**Within-study assessment**
	Q3c. Effort to rule out alternative explanations	Did the analysis seek to rule out alternative explanations for findings (in qualitative research this could be done by e.g. searching for negative cases/exceptions, feeding back preliminary results to participants, asking a colleague to review the data, or reflexivity?	
4. FINDINGS SUPPORTED BY THE DATA	Q4a. Findings clearly connected with evidence (e.g. direct quotes or detailed descriptions of observations, not just opinion)	Are claims supported with specific examples, quotes, or other detailed evidence rather than just opinion? Is it clear what evidence was used to support significant findings?	**B4. Bias considerations include** (look first at what authors indicate as limitations and then add on based on purpose and scope of overall review): - Authors' indications of study limitations - Reviewers' assessments of additional limitations summarising from above factors
	Q4b. Study limitations and generalisability described	Does the study point out its limitations and the populations to which it could be reasonably generalised? Is there discussion of any limitations, weaknesses, biases, or challenges with the data, analysis, conclusions, or populations to which conclusions can be generalised?	
5. BREADTH AND DEPTH OF FINDINGS	*Incorporated into criteria above*	Consider whether (it may be helpful to consider 'breadth' as the extent of description and 'depth' as the extent to which data has been transformed/analysed): - a range of issues are covered	*Incorporated into criteria above*

		QUALITY APPRAISAL *For each criterion, rate the study 0 (does not meet), .5 (partially meets), or 1 (fully meets)*	**BIAS ASSESSMENT** *For each quality domain, describe any bias considerations*
Quality domain	**Quality criterion**	**Guidance and criteria for informing judgements**	**Within-study assessment**
		- the perspectives of participants are fully explored in terms of breadth (contrast of two or more perspectives) and depth (insight into a single perspective) - richness and complexity have been portrayed (e.g. variation explained, meanings illuminated) - there has been theoretical/conceptual development	
6. PRIVILEGING PARTICIPANT PERSPECTIVES/EXPERIENCES		Consider: - whether there was a balance between open-ended and fixed response questions - whether participants were involved in designing the research - whether there was a balance between the use of an a priori coding framework and induction in the analysis - the position of the researchers (did they consider it important to	**B6. Bias considerations include** (in addition to assessments above): - balance between open-ended and closed-ended questions - participant involvement in research design

		QUALITY APPRAISAL *For each criterion, rate the study 0 (does not meet), .5 (partially meets), or 1 (fully meets)*	BIAS ASSESSMENT *For each quality domain, describe any bias considerations*
Quality domain	**Quality criterion**	**Guidance and criteria for informing judgements**	**Within-study assessment**
		listen to the perspectives of children?) - whether steps were taken to ensure confidentiality and put young people at ease.	

Source: Adapted from Bangpan M, Dickson K, Felix L et al. (2017) *The Impact of Mental Health and Psychosocial Support Interventions on People Affected by Humanitarian Emergencies: A Systematic Review*. Oxford: Oxfam GB.

Note: Grey cells indicate criteria that were rated in the first phase of quality appraisal, and other cells were added in the second phase full appraisal of final studies selected for inclusion.

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DECEMBER 8, 2017

Urban Institute Systematic Review Update: Results from Scoping Review

A Systematic Review of Qualitative Evidence on Barriers to, and Facilitators of, Women's Participation in Higher or Growing Productivity and Male-Dominated Labor Market Sectors in Low and Middle Income Countries

*H. Elizabeth Peters * Dorothy L. Espelage** Yasemin Irvin-Erickson* Ammar Malik* Alexandra Stanczyk* Edward Mohr* Tyler Woods* Emily Reimal**

** Urban Institute, USA **University of Florida*

Motivation & Conceptual Framework

- The problem and the importance of this review
  - Urban Institute's recent review of barriers to, and enablers of, women's economic empowerment (Peters et al. 2016)

Goals of the Scoping Review

- Identify the scope of the existing qualitative literature on women's participation in high- and growing-productivity sectors that are male-dominated:
  - Geographic extents of studies (by country, region, income level)
  - Sector focus of studies
  - Topical focus of studies
  - Method of studies (only qualitative, mixed-methods)
    - Types of qualitative studies

Review Team

Title	Name	Role in The Review	Tasks Assigned for the review	Current Job Title and Employer Organization
Dr.	H. Elizabeth Peters	Provides overall leadership of project team including research approach and leading writing efforts	Co-Principal Investigator	Director, Center on Labor, Human Services and Population, Urban Institute
Dr.	Dorothy Espelage	Guides team on research methodology and provide subject expertise on victimization	Co-Principal Investigator	Professor of Psychology, University of Florida
Dr.	Yasemin Irvin-Erickson	Trains coder, ensures that the ratings of study quality, outcomes, and implementation fidelity as assigned by the coder are appropriate and that coder's descriptions of study methods and findings are accurate, provides subject expertise on victimization	Senior Reviewer	Senior Research Associate, Urban Institute
Dr.	Ammar Malik	Provides subject matter expertise on transportation and urban labor markets	Senior Reviewer	Senior Research Associate, Urban Institute
Dr.	Alexandra Stanczyk	Supervises screening and coding activities and manages day-to-day project management	Senior Reviewer	Research Associate, Urban Institute
Mr. Mr. Ms.	Edward Mohr Tyler Woods Emily Reimal	Coder Coder Coder	Search for studies, carry the initial screening of eligibility and rigor of studies, codes eligible and basic rigor and eligible and high rigor studies	Research Assistants x 3, Urban Institute
Dr.	Teresa Derrick-Mills	Provide senior advisory on assessment of quality of qualitative studies	Senior Advisor	Senior Research Associate, Urban Institute
Ms.	Rachel Lewin	Librarian/Information Scientist	Assists in optimizing search strategies	Librarian/Urban Institute

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METHODOLOGY

Study Selection

- Phase 1: Initial scoping exercise
- Phase 2: Post-scoping revisitation of inclusion/exclusion criteria

Phase I Study Relevance Criteria

- 6 inclusion (relevance) indicators:
  - Date of study: 2000 and later
  - Publication language: English
  - Study types: Qualitative studies and mixed-methods studies with a qualitative component
  - Population:
    - Sex: The study either (1) focuses on women or 2) focuses on male-female differences in outcomes or separates out a discussion of women
    - Geography: A low- or a middle-income country (includes both lower-middle and upper-middle income) as classified by the World Bank
  - Types of outcome measures: women's formal employment or self-employment
  - Types of settings: Women's participation in higher or growing productivity sectors, including: accommodation and food; business administration services; commercial agriculture; energy; finance; trade; and transportation

Search Strategy: Grey Literature

- World Bank
- The Overseas Development Institution
- United Nations
- International Labour Organization
- CORDIS Library
- Social Care Online

Search Strategy: Academic Databases

- Academic Search Complete
- EconLit (EBSCOhost)
- ERIC (EBSCOhost)
- ProQuest Dissertations and Theses
- ProQuest Education Journals
- ProQuest Social Science Journals
- PubMed (Medline)
- Sociological Abstracts
- Web of Science

We also searched the following regional databases through ProQuest:

- Australian Education Index
- British Education Index
- CBCA Education

Search Strategy: Search Query

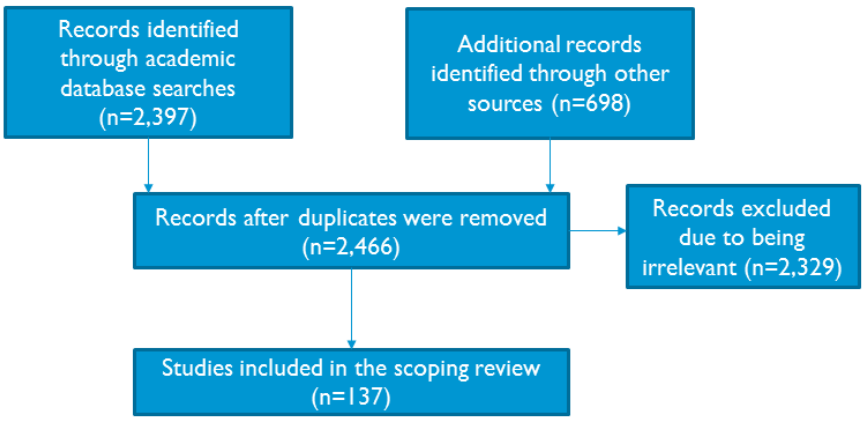
We combined search terms related to five key concepts from our inclusion criteria using the following Boolean combination: 1 AND 2 AND 3 AND 4 AND 5. Search 1, 2, 3, 4, and 5 in Title and Abstract (and when possible in keywords).

1. Low and Middle-Income Countries
2. Women
3. Type of study
4. Outcome
5. Sector

Managing and Documenting the Search and Coding Process

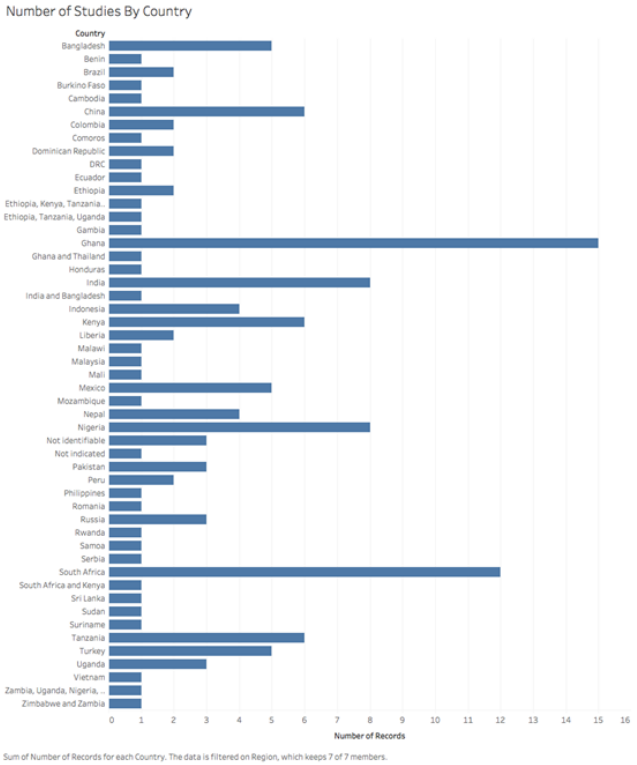
- EPPI-Reviewer 4 software used to manage the screening of sources from academic databases.
- Search hits from organizational repositories stored in Excel (Date of search, organization/website name, search key words/tabs, initial # of hits, # of relevant studies after screening, reason for exclusion of other studies).

Overview of Screening Results



Country Focus of Relevant Studies

13



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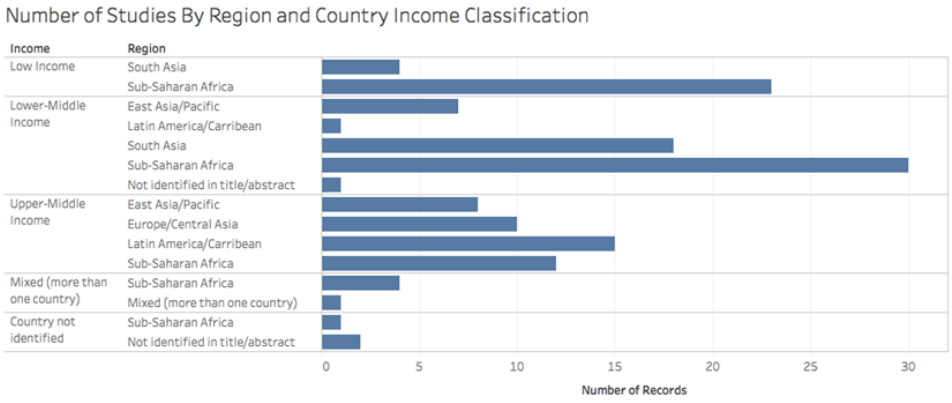
Region Focus of Relevant Studies



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Sector Focus of Relevant Studies

Sector	
Accomodation and food (including tourism)	13
Business admin	6
Commercial agriculture	40
Energy: Electricity	1
Energy: Gas/petroleum	2
Energy: General	2
Energy: Mining/quarrying/dredging	14
Energy: Water/water supply	2
Finance	2
Fishing	3
Forestry	2
Trade	26
More than one high-productivity growing productivity sector	3
Transportation	1
Not able to determine from the title/abstract	20

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Sector	Region	
Accomodation and food (including tourism)	East Asia/Pacific	3
	Europe/Central Asia	3
	Latin America/Carribean	2
	South Asia	1
	Sub-Saharan Africa	4
Business admin	Europe/Central Asia	1
	Latin America/Carribean	1
	South Asia	2
	Sub-Saharan Africa	2
Commercial agriculture	East Asia/Pacific	2
	Europe/Central Asia	2
	Latin America/Carribean	4
	South Asia	7
	Sub-Saharan Africa	25
Energy: Electricity	Sub-Saharan Africa	1
Energy: Gas/petroleum	Europe/Central Asia	1
	Latin America/Carribean	1
Energy: General	East Asia/Pacific	1
	South Asia	1
Energy: Mining/quarrying/dredging	East Asia/Pacific	1
	Europe/Central Asia	1
	Latin America/Carribean	2
	Sub-Saharan Africa	10
Energy: Water/water supply	South Asia	1
	Sub-Saharan Africa	1
Finance	East Asia/Pacific	1
	South Asia	1
Fishing	South Asia	1
	Sub-Saharan Africa	2
Forestry	South Asia	1
	Sub-Saharan Africa	1
Trade	East Asia/Pacific	3
	Latin America/Carribean	5
	Mixed (more than one cou..	1
	Not identified in title/abs..	1
	South Asia	3
	Sub-Saharan Africa	13
More than one high-productivity growing productivity sector	East Asia/Pacific	2
	Sub-Saharan Africa	1
Transportation	South Asia	1
Not able to determine from the title/abstract	East Asia/Pacific	2
	Europe/Central Asia	2
	Latin America/Carribean	1
	Not identified in title/abs..	2
	South Asia	3
	Sub-Saharan Africa	10

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Topical Focus of Relevant Studies

Study Topics (Barriers and Facilitators)

Topics	
Access to credit/assests/finance	4
Behavioral Biases/Behaviors (such as risk taking)	4
Broader Economic Impacts (such as economic crisis, migration)	16
Discriminatory Practices at Work	3
Environmental Degradation/Climate change	1
Gender-sensitive-budgeting/Gender-mainstreaming	1
Informality	1
Legal Environment	2
Mixed	48
Physical Constraints	1
Relocation of Businesses	1
Social norms/social capital/social networks	14
Technology/Energy/Water Supply	5
Time Poverty: Caregiving	1
Time Poverty: Other	2
Victimization: At work	2
Not able to determine from the title/abstract	31

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Type of Research Methods Employed in Relevant Studies

Method	
Only qualitative	58
Mixed-methods	46
Not able to determine from the title/abstract	33

Qualitative Method	
Interview/Focus group	49
Mixed qualitative (more than one method)	27
Case study	20
Ethnography	7
Phenomenology	4
Survey	3
Action research	2
Not able to determine from the title/abstract	25

Next Steps

Discussion on next steps for review:

- Revisiting scope:
  - Outcomes
  - Sectors
  - Types of studies
- Early thinking about synthesis methods

Description of Systematic Search Results

As an initial step for our review, we piloted searches from a limited list of databases (12 academic and six grey literature) to confirm that a literature of useful and reliable studies would be identifiable. This initial search produced 2,329 academic and grey literature sources after removing duplicates. A screening on titles and abstracts identified potentially relevant 137 studies.

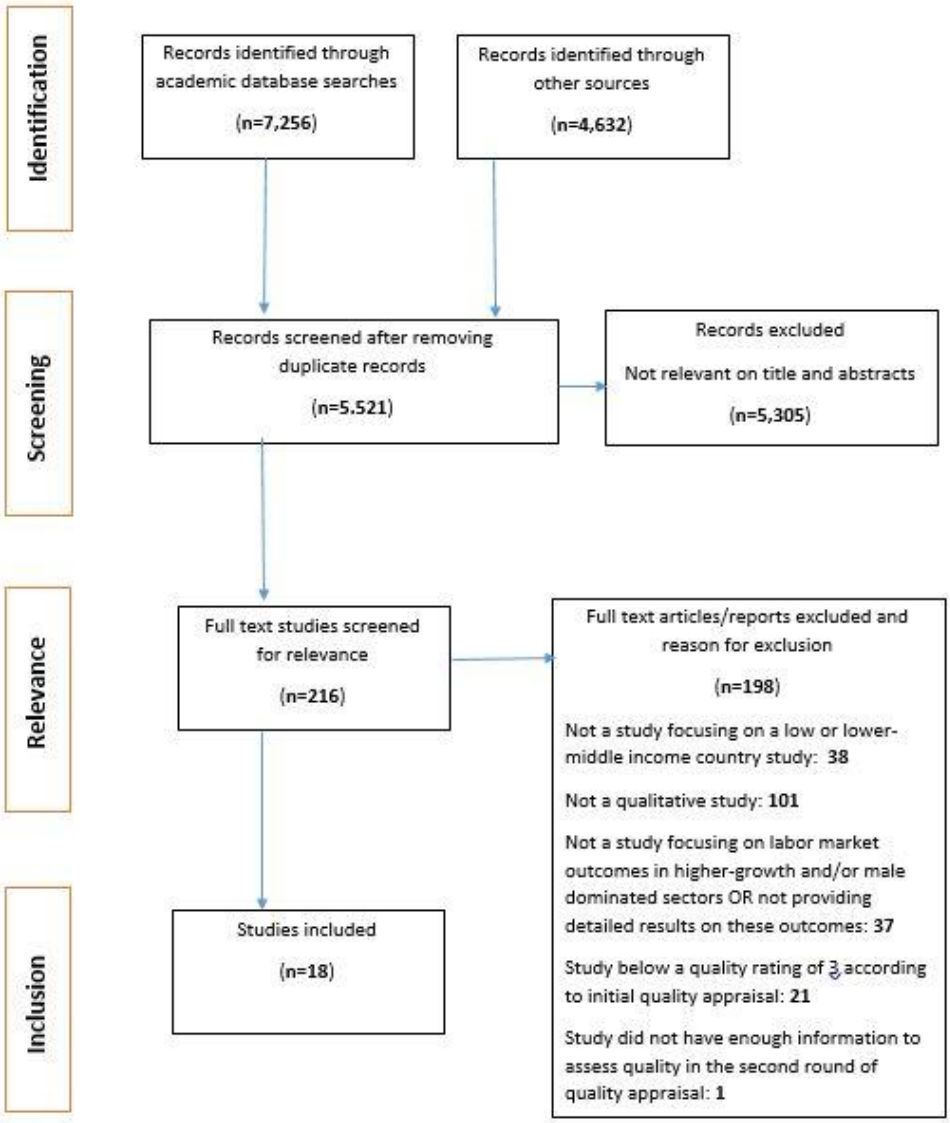
Our analysis of these initial search outputs (137 studies) identified a subset of studies that could provide the most useful and reliable evidence. This was achieved through discussions between the authors, DfID and UCL to take into account policy interests and research methodology. We identified a literature spanning low- to middle-income countries, where most of the studies focused on a single country (slide 15 Appendix 7).

The focus on policy sectors was uneven, with many more studies focusing on commercial agriculture (40), trade (26) energy through mining, quarrying or dredging (14) and accommodation (13) than other energy sectors (7), business administration (6), fishing (3), finance (2), forestry (2) or transportation (1) (slide 16 Appendix 7). These studies addressed a range of barriers and facilitators to women's employment (slide 18 Appendix 7) through either qualitative or mixed-methods approaches (slide 19). This pilot searching confirmed the value of reviewing qualitative research addressing barriers and facilitators of women's employment within the chosen sectors.

Following this pilot scoping exercise, we extended our search to include a broader set of 19 academic and 23 grey literature databases. We also refined our search terms (shown in Appendix 5), in consultation with experts at UCL, to more thoroughly address economic empowerment outcomes and experiences of interest to the review. This systematic search for qualitative and mixed-methods studies on the barriers to and facilitators of women's employment in higher-productivity and male-dominated sectors in low- and middle-income countries is summarised in Figure 4 below. It identified 11,888 records of studies – 7,256 from academic databases and 4,632 from grey literature sources.

After removing the duplicates (n=6,367) and screening studies on title and abstract, most citations were excluded because these sources were not relevant to our review question (n=5,305). We then retrieved the full texts of the remaining 216 studies for mapping, and we excluded a further 198 studies because they did not meet our final inclusion criteria (see section 2.2). Below we describe the mapping of these 216 studies, which led to our final selection of 18 studies for inclusion in the full review (as shown in the flow diagram below).

Flow Chart Diagram of Search Results and Identification of Studies



The 216 potentially relevant abstracts confirmed the earlier uneven distribution across employment sectors:

- 106 (49%) focused on commercial agriculture,
- 68 (31%) focused on the trade sector,
- 37 (17%) focused on business administration services,
- 35 (16%) focused on the energy sector including mining,
- 23 (11%) focused on the accommodation and food sector,
- 14 (6%) focused on the finance sector, and
- 6 (3%) focused on the transportation sector.

Some studies focused on more than one sector.

These potentially relevant abstracts mentioned the following general conceptual themes related to potential enablers of women's economic empowerment (drawing on Peters et al. 2016), with each study being coded into at least one theme (some studies focused on more than one theme):

- 58 (27%) focused on legal issues surrounding women's participation in higher and growing productivity sectors,
- 48 (22%) focused on the informality of work,
- 36 (17%) focused on child care,
- 26 (12%) focused on violence,
- 21 (10% focused on macroeconomic factors,
- 32 (15%) focused on infrastructure including transportation, and
- 16 (7%) focused on technology.

135 studies (62%) did not focus on any of these broader themes. These preliminary themes, broadly informed by the team's knowledge of prior literature on enablers of women's economic participation, provided a sense of the available research literature. As described in section 2, our final synthesis utilised a more extensive framework approach grounded in the Peters et al. (2016) conceptual framework.

At the mapping stage, we considered studies focused on low income, lower-middle income, or upper-middle income countries. The majority of the studies screened for relevance (n=117) focused on lower-middle-income countries followed by studies focusing on upper-middle-income countries (n=66) and low-income countries (n=58). Some studies included multiple countries, thus these frequencies (and others reported below) may not always add up to the total number of studies reviewed.

These studies had employed either qualitative data analysis methods (116 abstracts; 54%) or mixed-method (100 abstracts; 46%). Examination of the titles and abstracts of the 116 qualitative studies alone revealed that this subset of literature was likely to offer research evidence that spanned countries at different levels of economic development, a range of employment sectors (albeit unevenly) and provide learning about a range of important barriers and facilitators to women's employment.

Considering the socioeconomic context and the employment sectors together, and focusing on these qualitative studies, showed the uneven distribution of research addressing specific employment sectors in countries at different levels of economic development (Table 1). In particular, the focus on commercial agriculture to be less in upper-middle income countries, and the focus on trade to be lower in low income countries.

Table 1. Employment Sector and Socioeconomic Context of Studies (n=116 qualitative studies)

Sector	Low income countries	Lower-middle income countries	Upper-middle income countries
Accommodation and food	3	10	5
Business administration services	3	8	11
Commercial agriculture	21	29	14
Energy (includes mining and quarrying, electricity, gas and water supply)	9	7	6
Finance	3	2	3
Trade	9	24	13
Transportation	2	1	0

This qualitative subset of literature seemed likely to offer learning about barriers and facilitators in countries at different levels of economic development (Table 2) and across employment sectors (Table 3). Consequently, upon conferrals with experts at UCL and DfID, we narrowed our review to only studies with qualitative study designs to gain a rich and complex understanding about our research question.

Additionally, in an effort to ensure a review focused on countries and sectors of greatest relevance to DFID, while keeping the scale of studies manageable we limited our review to low income and lower-middle income countries. This decision was made in conferral with DfID and UCL. Informed by the observed variation in the data (as shown in Table 1 and Table 2), this focus seemed likely to produce valuable insights about a range barriers and facilitators in several key sectors of particular interest to DfID.

Table 2. Barriers/Facilitators across Socioeconomic Context of Studies (116 qualitative studies)

Focus of Study	Low income countries	Lower-middle income countries	Upper-middle income countries
Economic growth	5	8	4
Transportation	2	2	1
Infrastructure	2	3	1
Technology	5	4	2
Child care	7	8	5
Legal environment	10	14	14
Informality of work	8	15	10
Violence	6	5	3
Other	24	32	38

Table 3. Barriers/Facilitators Across Employment Sectors (116 qualitative studies)

Focus of Study	Economic growth	Transportation	Infrastructure	Technology	Child care	Legal environment	Informality of work	Violence	Other
Accommodation and food	4	0	3	2	4	4	7	3	7
Business administration services	2	0	0	1	2	4	1	3	14
Commercial agriculture	11	2	5	6	7	12	11	6	32
Energy (includes mining and quarrying, electricity, gas and water supply)	4	0	1	4	2	8	4	2	9
Finance	2	2	1	2	2	3	4	2	2
Trade	6	3	2	5	5	10	14	4	20
Transportation	2	1	1	2	1	2	2	1	1

Finally, to ensure a baseline level of quality, we limited our review to studies scoring at least 3 in our initial quality appraisal (described in section 2.4). This threshold was chosen because the scoring ranged from 0-6, such that a score of 3 indicated a study met at least half of the basic quality criteria for which we screened (related to sampling, analysis, and use of evidence to support findings). As a result, 21 studies with scores below 3, and one study lacking sufficient information to fully assess quality, were excluded.

Informed by this scoping of the literature and exclusion of upper-middle income countries, mixed-methods studies and lower-quality studies, our final sample of studies included in this review included 18 studies (see Appendix 8 and Appendix 9 for a map of included studies and Appendix 10 for a more detailed summary table of included studies).

APPENDIX 8. LIST OF INCLUDED STUDIES

1. Afolabi MM (2015) *Commercialization of agriculture in Nigeria: a gender analysis of cash crop production in Yekemi, Osun State* (Doctoral dissertation, University of Hull).

2. Akiwumi FA (2011) Transnational mining corporations and sustainable resource-based livelihoods in Sierra Leone. *Singapore Journal of Tropical Geography*, 32(1): 53-70.

3. Akter S, Rutsaert P, Luis J, Htwe NM, San SS, Raharjo B, Pustika A (2017) Women's empowerment and gender equity in agriculture: A different perspective from East Asia. *Food Policy*, 69: 270-279.

4. Austin KF (2017) Brewing Unequal Exchanges in Coffee: A Qualitative Investigation into the Consequences of the Java Trade in Rural Uganda. *Journal of World-Systems Research*, 23(2): 326-352.

5. Boateng R, Hinson R, Galadima R, Olumide L (2014) Preliminary insights into the influence of mobile phones in micro-trading activities of market women in Nigeria. *Information Development*, 30(1): 32-50.

6. Chandra A, McNamara KE, Dargusch P, Caspe AM, Dalabajan D (2017) Gendered vulnerabilities of smallholder farmers to climate change in conflict-prone areas: A case study from Mindanao, Philippines. *Journal of Rural Studies*, 50: 45-59.

7. Darkwah AK (2002) *Going global: Ghanaian female transnational traders in an era of globalization*. (Doctoral dissertation, University of Wisconsin-Madison).

8. Elias M (2010) *Transforming nature's subsidy: Global markets, Burkinabè women and African shea butter* (Doctoral dissertation, McGill University Library).

9. Fröcklin S, de la Torre-Castro M, Håkansson E, Carlsson A, Magnusson M, Jiddawi NS (2014). Towards improved management of tropical invertebrate fisheries: including time series and gender. *PLoS One*, 9(3): e91161.

10. Jones E, Smith S, Wills C (2012) Women producers and the benefits of collective forms of enterprise. *Gender & Development*, 20(1): 13-32.

11. Kelly JT, King-Close A, Perks R (2014) Resources and resourcefulness: Roles, opportunities and risks for women working at artisanal mines in South Kivu, Democratic Republic of the Congo. *Futures*, 62: 95-105.

12. Koomson E (2017) Transformining Customary System in Ghana: Women's Participation in Small-Scale Gold Mining Activities in the Talensi District. Doctoral thesis: University of Michigan.

13. Lauwo S (2018) Challenging masculinity in CSR disclosures: Silencing of women's voices in Tanzania's mining industry. *Journal of Business Ethics*, 149(3): 689-706.

14. Manzanera-Ruiz R, Lizárraga C, 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.

15. Mutopo P (2011) Women's struggles to access and control land and livelihoods after fast track land reform in Mwenezi District, Zimbabwe. *Journal of Peasant Studies*, 38(5): 1021-1046.

16. Sidibé A, Vellema S, Dembelé F, Traoré M, Kuyper TW (2012). Innovation processes navigated by women groups in the Malian shea sector: How targeting of international niche markets results in fragmentation and obstructs co-ordination. *NJAS-Wageningen Journal of Life Sciences*, 60: 29-36.

17. Ugwu DI, Orjiakor CT, Enwereuzor IK, Onyedibe CC, Ugwu LI (2016) Business-life balance and wellbeing: Exploring the lived experiences of women in a low-to-middle income country. *International Journal of Qualitative Studies on Health and Well-Being*, 11(1): 30492.

18. Wrigley-Asante C (2013) Survival or escaping poverty: The perspectives of poverty and well-being among Ghanaian women in cross-border trading. *Journal of Gender Studies*, 22(3): 320-334.

APPENDIX 9. MAP OF INCLUDED STUDIES

Form of Publication	Count
Journal Article	14
Thesis/Dissertation	4

Sector (select all that apply)	Count
Commercial agriculture	11
Trade	12
Mining	4

Note: Some articles have multiple sectors. In our mapping review, mining studies were categorised with energy-related studies, but all the mining studies in the final review were unrelated to energy (e.g. precious metals).

Country Classification	Count
Low income	10
Lower-middle income	10
Upper-middle income	3

Note: Some articles have multiple countries.

Country	**Continent**	**Count**
Burkina Faso	Africa	1
Democratic Republic of the Congo	Africa	1
Ghana	Africa	4
India	Asia	1
Indonesia	Asia	1
Kenya	Africa	1
Mali	Africa	1
Mexico	Latin Am.	1
Myanmar	Asia	1
Nepal	Asia	1
Nicaragua	Latin Am.	1
Nigeria	Africa	3
Philippines	Asia	2
Sierra Leone	Africa	1
Tanzania	Africa	4
Thailand	Asia	2
Uganda	Africa	2
Zimbabwe	Africa	1

Note: Some articles have multiple countries.

Sex of Study Participants	Count
Women	8
Women and men	10

Number of Study Participants	Count
30 or less	3
More than 30	10
Not reported	5

Age of Study Participants	Count
Adults	12
Older people	5
Children and younger people	2
Not reported	7

Note: Some articles have multiple age groups. Age categories reported here are based on authors' description of the age categories of participants. In some cases, specific ages were not provided.

Study Design/Approach	Count
Ethnography	6
Single case study	10
Multi-case study	6
Action research	1
Community-based participatory research	1
Phenomenology	1
Grounded theory	1
Feminist research	2
Unclear/not reported	1

Note: Some articles have multiple study approaches.

Data Collection Methods	Count
Interviews	15
Focus groups	11
Surveys	4
Observations	10
Case management/case file reviews	1
Document collection	4
Other	2

Note: Some articles have multiple data collection methods.

Study Outcomes	Count
Wage employment	11
Business ownership/self-employment	12
Upward job mobility	3
Other economic empowerment (education, control of resources)	10
Other empowerment (health, gender relations)	9

Note: Some articles have multiple outcomes.

APPENDIX 10. SUMMARY TABLE OF INCLUDED STUDIES

Author	Study aims	Quality *Rating:* *Level:*	Study methods *Study design:* *Data collection methods:*	Industry sector(s)	Context *Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	Study population *N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	Outcomes *Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
1. Afolabi 2015	This study examines the intersections of women's involvement in the commercialisation of cash crop production and men's migration on gender relations at inter and intra household levels.	9.5 High	Ethnography; multi-case study; feminist research Interviews; focus groups; observations	Commercial agriculture (cash crops, cocoa, palm trees, kolanuts) and trade	Sub-Saharan Africa: *Nigeria* (lower-middle income, high fertility, GAP 0.641/#122, GII NA)	N=43 Women and men Adults and older people (20-70+) NP Polygamous, multi-generational NA	X	X			
2. Akiwumi 2011	This study examines women's coping mechanisms in a small mining community after the introduction of a mechanical cassava grater to increase their economic empowerment.	5.75 Medium	Single case study Interviews	Commercial agriculture and trade (cassava and gari production); mining (rutile)	Sub-Saharan Africa: *Sierra Leone* (low income, high fertility, GAP NA, GII 0.645/#150)	N=10-18 Women Adults Mostly married Conflict setting	X	X			

Author	Study aims	Quality *Rating:* *Level:*	Study methods *Study design:* *Data collection methods:*	Industry sector(s)	Context *Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	Study population *N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	Outcomes *Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
3. Akter et al. 2017	The study examines the nature and extent of gender equity in in Southeast Asian agriculture, drawing on data from four countries to analyse intra-regional heterogeneity in community-level women's empowerment.	9.0 High		Commercial agriculture (mainly rice)	East Asia: *Myanmar* (lower-middle income, aging society, GAP 0.691/#83, GII 0.456/#106), *Thailand* (upper-middle income, aging society, GAP 0.694/#75, GII 0.393/#93), *Indonesia* (lower-middle income, aging society, GAP 0.691/#84, GII 0.453/#101), *Philippines* (lower-middle income, declining fertility, GAP 0.790/#10, GII 0.427/#97)	N=290 Women Adults (30s-50s) Mostly married Varied family structure by country NA	X	X		X	
4. Austin 2017	This study examines coffee cultivation in a rural coffee-producing region to provide insights into how the coffee economy relates to gender dynamics,	9.5 High	Single case study Interviews; observations	Commercial agriculture and trade (coffee)	Sub-Saharan Africa: *Uganda* (low income, high fertility, GAP 0.721/#45, GII 0.523/#126)	N=21 Women and men Adults and older people (30-76) Some polygamy		X		X	X

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
	physical health, deforestation and economic conditions.					NA					
5. Boateng et al. 2014	This study examines the benefits, constraints and practices of mobile phone usage on micro-trading among women traders.	7.5 Medium	Multi- case study Interviews; observations; document collection	Trade (wholesale vegetables, micro-trade)	Sub-Saharan Africa: *Nigeria* (lower-middle income, high fertility, GAP 0.641/#122, GII NA)	N=15 Women Adults NP NP NA		X	X		X
6. Chandra et al. 2017	This study examines the gendered vulnerabilities of smallholder farmers to climate change, including implications for livelihoods, assets, debt, and agricultural yields.	9.0 High	Single case study Focus groups; surveys	Commercial agriculture (smallholder)	East Asia: *Philippines* (lower-middle income, declining fertility, GAP 0.790/#10, GII 0.427/#97)	N=172 Women and men Adults NP NP		X		X	X

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
						Conflict setting					
7. Darkwah 2002	This study examines the socioeconomic lives of female traders to analyse the mechanisms that enable them to take advantage of opportunities and to minimise the constraints brought by trade liberalisation policies.	9.5 High	Multi-case study; community-based participatory research Interviews; observations	Trade (transnational, small scale consumer goods)	Sub-Saharan Africa: *Ghana* (lower-middle income, declining fertility, GAP 0.695/#72, GII 0.538/#131) East Asia: *Thailand* (upper-middle income, aging society, GAP 0.694/#75, GII 0.393/#93)	NP Women Adults (20-59) Married, widowed, divorced, separated, unmarried Transnational families NA		X			

Author	Study aims	Quality *Rating:* *Level:*	Study methods *Study design:* *Data collection methods:*	Industry sector(s)	Context *Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	Study population *N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	Outcomes *Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
8. Elias 2010	This study examines the sociopolitical, physical, and ecological relationships of the international market shea butter projects, particularly differential experiences by gender, migrants, and local communities.	8.75 High	Single case study; ethnography Interviews; focus groups; observations	Commercial agriculture and trade (shea nuts and shea butter)	Sub-Saharan Africa: *Burkina Faso* (low income, high fertility, GAP 0.646/#121, GII 0.610/#145)	N=213 Women and men NP Married, widowed Polygamy common High migrant setting	X			X	
9. Fröcklin et al. 2014	This study examines differential roles and experiences of men and women in the invertebrate fishing industry to inform future regulation and conservation management.	6.0 Medium	Single case study Interviews; surveys	Commercial aquaculture (fisheries)	Sub-Saharan Africa: *Tanzania* (low income, high fertility, GAP 0.700/#68, GII 0.537/#130)	N>=80 Women and men Adults, older people, and youth (12-68) NP NP		X			

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
						NA					
10. Jones et al. 2012	This study examines the experiences of women producers in collective enterprises linked to the Fair Trade movement to analyse the economic empowerment benefits of membership-based organisations for female producers.	6.0 Medium	Multi-case study; action research Focus groups; case management/file reviews; workshops	Commercial agriculture and trade (basket weaving, hand stitching, handicrafts, textile-making, body scrub production, dried fruit)	Sub-Saharan Africa: *Kenya* (lower-middle income, high fertility, GAP 0.694/#76, GII 0.549/#137), *Tanzania* (low income, high fertility, GAP 0.700/#68, GII 0.537/#130), *Uganda* (low income, high fertility, GAP 0.721/#45, GII 0.523/#126) South Asia: *India* (lower-middle income, declining fertility, GAP 0.669/#108, GII	NP Women NP NP NP NP NA	X	X		X	

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
					0.524/#127), *Nepal* (low income, declining fertility, GAP 0.664/#111, GII 0.480/#118) Latin America: *Nicaragua* (lower-middle income, declining fertility, GAP 0.814/#6, GII 0.456/#106), *Mexico* (upper-middle income, declining fertility, GAP 0.692/#81, GII 0.343/#76)						
11. Kelly et al. 2014	This study examines women's experiences in the context of artisanal and small-scale mining to analyse the processes needed for women	5.0 Medium	Single case study; grounded theory Interviews; focus groups	Mining (gold, coltan, cassiterite)	Sub-Saharan Africa: *Democratic Republic of the Congo* (low income, high fertility, GAP NA, GII 0.578/#143)	NP Women and men NP NP	X				

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
	to secure opportunities for long-term engagement in mining activities.					NP Conflict setting					
12. Koomson 2017	This study examines how socioeconomic roles of women involved in small-scale mining produces economic opportunities and challenges.	7.0 Medium	Ethnography Interviews; focus groups; surveys; observations; document collection	Mining (gold)	Sub-Saharan Africa: *Ghana* (lower-middle income, declining fertility, GAP 0.695/#72, GII 0.538/#131)	N=40 Adults and youth (participants did not know their ages) NP Polygamy common NA	X		X	X	X

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
13. Lauwo 2018	This study analyses the intersection of corporate social responsibility in the transnational gold mining industry and women's experiences.	5.25 Medium	Multi-case study; ethnography; feminist research Interviews; focus groups	Mining (gold)	Sub-Saharan Africa: *Tanzania* (low income, high fertility, GAP 0.700/#68, GII 0.537/#130)	N>=15 Women and men NP NP NP NA	X		X		
14. Manzanera-Ruiz et al. 2016	This study examines gender relations and patriarchal constraints to collective action in the context of cash crop production to analyse the implications of collective action for women's empowerment.	8.75 High	Single case study; ethnography Interviews; observations	Commercial agriculture and trade (coffee and tomatoes)	Sub-Saharan Africa: *Tanzania* (low income, high fertility, GAP 0.700/#68, GII 0.537/#130)	N=42 Women and men Adults (average 45) Married, widowed, separated Polygamy common NA		X		X	X

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
15. Mutopo 2014	This study examines how negotiations by women with the family, state, and traditional actors has proved to be useful in accessing land and associated livelihoods in the context of land reform efforts.	7.0 Medium	Single case study; ethnography Interviews; focus groups; observations	Commercial agriculture (livestock and crops) and trade (local and cross-border)	Sub-Saharan Africa: *Zimbabwe* (low income, declining fertility, GAP 0.717/#50, GII 0.534/#128)	NP Women and men NP Married, widowed, divorced, unmarried NP NA		X			X
16. Sidibé et al. 2012	This study examines a community-level shea sector cooperative to analyse the role of women's cooperatives in providing access to markets and value chains as a development pathway.	7.0 Medium	Single case study Interviews; focus groups; observations; document collection	Commercial agriculture (shea butter) and trade (international)	Sub-Saharan Africa: *Mali* (low income, high fertility, GAP 0.583/#139, GII 0.678/#157)	N=35 Women NP NP NP NA	X			X	

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
17. Ugwu et al. 2016	This study examines women traders' intersecting work / non-work roles in lower-middle income contexts.	8.75 High	Phenomenology Interviews	Trade (petty goods)	Sub-Saharan Africa: *Nigeria* (lower-middle income, high fertility, GAP 0.641/#122, GII NA)	N=20 Women Adults and older people (27-64) Married, widowed NP NA	X			X	X
18. Wrigley-Asante 2013	This study examines the specific commercial activities that are undertaken by women in cross-border trading, the coping strategies that they use to address the difficulties that confront them, the impact of women's	8.25 High	Single case study Interviews	Trade (cross-border)	Sub-Saharan Africa: *Ghana* (lower-middle income, declining fertility, GAP 0.695/#72, GII 0.538/#131)	N=40 Women Adults (25-54) Married, unmarried NP NA	X	X		X	X

Author	Study aims	Quality	Study methods	Industry sector(s)	Context	Study population	Outcomes				
		Rating: *Level:*	*Study design:* *Data collection methods:*		*Region: country (World Bank category, UN fertility category, GAP index/rank, GII index/ rank)*	*N:* *Gender:* *Age:* *Marital status:* *Family unit:* *Special population:*	*Wage employment*	*Business ownership/ self-employment*	*Upward job mobility*	*Other economic empowerment*	*Other empowerment*
	trading activities on their lives, and how these are linked to their subjective understanding of poverty and well-being										

Notes: NP indicates information was not explicitly provided in the study. NA indicates no special population of interest to the review. “High” quality ratings are >=8. GAP (WEF global gender gap) and GII (UNDP gender inequality index) rankings are from 2017. Fertility categories are based on the UN Roadmap to Women’s Economic Empowerment report (UN 2014).

APPENDIX 11. QUALITY AND BIAS ASSESSMENTS FOR INCLUDED STUDIES

Quality appraisal ratings for included articles

Article	Sampling	Data collection	Data analysis	Overall Rating
1. Afolabi 2015	3.0	2.0	4.5	9.5
2. Akiwumi 2011	2.0	1.5	2.25	5.75
3. Akter et al. 2017	2.0	2.0	5.0	9.0
4. Austin 2017	3.0	2.0	4.5	9.5
5. Boateng et al.	1.5	1.5	4.5	7.5
6. Chandra et al.	3.0	2.0	4.0	9.0
7. Darkwah 2002	2.5	2.0	5.0	9.5
8. Elias 2010	2.75	2.0	4.0	8.75
9. Fröcklin et al.	2.0	1.5	2.5	6.0
10. Jones et al. 2012	1.5	2.0	2.5	6.0
11. Kelly et al. 2014	2.0	0.5	3.5	5.0
12. Koomson 2017	1.5	2.0	3.5	7.0
13. Lauwo 2018	1.0	1.5	2.75	5.25
14. Manzanera-Ruiz	3.0	2.0	3.75	8.8
15. Mutopo 2014	1.25	2.0	3.75	7.0
16. Sidibé et al. 2012	1.5	2.0	3.5	7.0
17. Ugwu et al. 2016	1.75	2.0	5.0	8.75
18. Wrigley-Asante	2.5	1.5	4.25	8.25

Notes: See bias assessment notes below for descriptive assessments of privileging of participant perspectives. Data analysis score includes rating for whether findings were supported by evidence presented in the analysis.

Risk of bias assessments for included articles

1. Afolabi 2015

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: Yoruba women and men (aged 20 to 70+) engaged in cash crop production farming—focus primarily on those farm owners; tended to be in polygamous families with two-four wives and 2-13 children, and often three generations living in the household; most are not indigenous to the village but rather migrated for farming purposes; Community Characteristics: Yekemi, Osun State, southwestern Nigeria (a rural community of about 4,000; second largest cocoa producer in Nigeria and a pioneer state for dry season irrigation farming); the history of the village

Quality Domain	Notes on Bias
	suggests the village was named after a female settler in the area named Kemi; the village has no electricity, the only water source is the river, and about 90% of the people work in farming; Work Characteristics: agriculture, cash crop production (cocoa, kola nut or palm oil)
Rigour in data collection	B2. Building trust: 9 months of ethnographic field work whereby the author indicates spending considerable time explaining to men and women about the purpose of the research, gaining their trust, and their consent; focus group discussions were held at a farmers' cooperative house with refreshments provided by the researcher; Addressing Power Differential: the researcher had an initial meeting with 43 farm workers and then divided up into groups for subsequent discussions based on what was learned in that meeting; Addressing language and culture: the researcher was fluent in Yoruba, the native language of the area; she spent a month (January 2012) visiting Yekemi and meeting with the king and council of elders before being granted permission to live in the village to conduct her research; she was provided with a one-room unpainted, unfurnished hut; the elders also introduced her to one of the women farmers who helped her connect with other farmers
Rigour in data analysis	B3. Focus of analysis: analyses are provided at the village, family/farm (10 male and 20 female farmers), and individual levels; Diverse perspectives: researcher presents perspectives of men and women and presents numerous farming models; Principles of Interpretation: gender and development approach (GAD), anthropological and feminist perspectives; the researcher returned to the village to disseminate and check in about the findings
Findings supported by the data	B4. Author's study limitations: author notes standard limitations of context; Reviewer's study limitations: author provides considerable details that assist in considering generalisability to other contexts
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: most data was collected through observation and unstructured interviews—two open-ended responses; Participant involvement in research design: In some ways, the participants were involved in the design because the elders introduced the researcher to a woman-farmer liaison, and the liaison helped gain access and suggested the best ways to meet with individuals; and, the researcher refocused her research questions based on what she learned in her first interactions with people in the village

2. Akter et al. 2017

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: women farmers (including cultivators, labourers and family workers); average ages of study participants ranged from mid-30s to mid-50s, 78%-97% married, averaged 5-9 years of education, and in most countries most of them owned their land (diversity is observed across countries); Community Characteristics :four East Asian countries—Myanmar, Thailand, Indonesia, and Philippines (one to two communities in each country); Work Characteristics: farming, primarily rice
Rigour in data collection	B2. Building trust: local extension agents helped to select the communities and connect with study participants; focus groups were held in local community centers or participant homes; Addressing Power Differential: holding focus groups in familiar places helps; Addressing language and culture: local facilitators were consulted to discuss the protocol and decide on guidelines
Rigour in data analysis	B3. Focus of analysis: aggregate experiences of the women in each country or community; Diverse perspectives: compare and contrast across countries; Principles of Interpretation: women's empowerment in agriculture index; researchers also used a consensus process in the focus groups to bring the women to agreement about the experience of their village as a whole rather than only their own experience; inductive and deductive content analysis
Findings supported by the data	B4. Author's study limitations: the authors note a lack of generalisability to the entire countries of study or to other countries, but do point out how rice farming and the socio-religious differences among these countries and between these countries and many African countries are supportive of differences in findings; Reviewer's study limitations: no additional limitations
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: a common protocol of open-ended questions was used across sites to garner perspectives related to the agricultural empowerment scale; Participant involvement in research design: participants were not involved in design, but they were involved in interpretation

3. Akiwumi 2011

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: In 2005, the Village of Kpetema was focal area with mining households as focal individuals; in 2008, the 10 members of a gari-producting co-op called muglemei were the focus; typically the women were married (sometimes in polygamous marriages) had many children (as

Quality Domain	Notes on Bias
	many as 12) and the children were sent to a school where uniforms were required; Community Characteristics: Southern Province, Sierra Leone in West Africa; the area has long been dependent on mining of diamonds, rutile, and bauxite (this is the area where the so-called 'blood diamond war' occurred; the mining areas are located in the Bonthe and Moyomba districts on the lands of the Mende indigenous peoples but indigenous governance is superseded by national governing structures; Mende culture defines work and family roles by gender; Work Characteristics: although the context is a mining town, the focus of the work is the women in gari producing co-op growing their own cassava and collectively peeling, grating and fermenting (in this case the co-op had a mechanical cassava grater) (Note that men are hired for the final toasting process and a truck comes from outside the neighborhood bound for Guinea to pick up the gari, buy it in bulk, and take it to market)
Rigour in data collection	B2. Building trust: remained in some contact between 2005 and 2008; focus groups in 2008 lasted several hours; Addressing Power Differential: not discussed; Addressing language and culture: interviews conducted in Krio
Rigour in data analysis	B3. Focus of analysis: the unit of analysis is confusing; on the one hand it is about women's experiences, but on the other the discussion is focused on the co-op and the village rather than the individual women; Diverse perspectives: without more information on the analysis, it is hard to say how well diverse perspectives are recognised; Principles of Interpretation: theoretical framework of world systems and sustainable livelihoods; but it is not clear how the author coded the information, developed themes, or decided on the primary story line
Findings supported by the data	B4. Author's study limitations: the author does not discuss; Reviewer's study limitations: context and social norms of the community are important to understanding other areas to which findings may be generalised; and as noted by the author, the mechanised grater and co-op were still in a start-up period
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: questions were open-ended and collection focused on discussion; Participant involvement in research design: no mention of participant involvement in the research design

4. Austin 2017

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: men and women between 30-76 years old, all involved in coffee cultivation for many years, some had no former schooling while others had completed

Quality Domain	Notes on Bias
	some secondary education, all were married or widowed, several were in polygamous marriages; Community Characteristics: a rural region in Eastern Uganda, the Bududa District (which has 15 sub-counties, one town council, with 90 parishes and 899 villages; it has a population of about 200,000 with about 50% under 16 years old; polygamy is commonly practiced and most households have 6-7 children with average age of first birth for women at 14-16 years old; more than 93% of households in the district are subsistence farmers; a high-altitude, mountainous area located at the foot of the Mount Elgon volcano (inactive); coffee is the only crop they exchange on the international market; the community has no water or sanitation system and irregular electricity; Work Characteristics: coffee cultivation and harvest (Arabica variety—which is different than the variety grown in and exported most); coffee harvest is typically July through October
Rigour in data collection	B2. Building trust: conducted interviews "on a secluded but open porch" of the local family where the researcher was staying; the researcher also a built a relationship with the community over a five year period; Addressing Power Differential: interviews were conducted separately with men and women; Addressing language and culture: used a local male translator to conduct interviews in the local language, Ligisu; the local translator helped to design and phrase the interview questions to improve relevance and understandability for the community
Rigour in data analysis	B3. Focus of analysis: community-level; Diverse perspectives: perspectives of men and women are presented, even when in conflict; Principles of Interpretation: structural fieldwork approach examining "unequal exchange"; used systematic coding facilitated by ATLAS.ti; initial coding focused on themes tied to research questions; coding was an iterative process
Findings supported by the data	B4. Author's study limitations: the author recognised that she would be considered an outsider in the community, but notes she sought to mitigate this by adopting some local norms of the appropriate way to say hello and wearing long skirts, the local male interpretor; the researcher also notes that the translation process may have introduced some inconsistencies because there is no written dictionary for Ligisu (but the translator is also fluent in English), and the translator was male which may have been intimidating to some women (but he was young and his family ran an NGO for empowering women); Reviewer's study limitations: generalisability would be context-specific
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: semi-structured interviews are used; Participant involvement in research

Quality Domain	Notes on Bias
	design: not the participants, but the researcher collaborated with the local translator to assure that questions were appropriately worded and phrased for relevance and understanding

5. Boateng et al. 2014

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: two market women, a potato-trader and a tomato-trader who had engaged in wholesale trading for five years and use of mobile phones for two years; Community Characteristics: Wuse and Gaza markets, Abuja, Nigeria; Work Characteristics: micro-trading activities
Rigour in data collection	B2. Building trust: they worked through a market association; Addressing Power Differential: did not address this; Addressing language and culture: Began with a pilot study of 15 women for one month to determine viability of study and to select cases for deeper study
Rigour in data analysis	B3. Focus of analysis: case studies; Diverse perspectives: they conducted a pilot to select two cases that would offer diverse perspectives; Principles of Interpretation: Technology Acceptance Model; pattern matching (Yin)
Findings supported by the data	B4. Author's study limitations: They acknowledge the exploratory nature of their research; Reviewer's study limitations: no additional limitations noted
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: interview guides were used as a loose framework to encourage and record discussion; Participant involvement in research design: no mention of participant involvement in research design

6. Chandra et al. 2017

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: smallholder farmers; Community Characteristics: five municipalities within Mindanao, Philippines (an island of about 22 million people); multi-ethnic, Muslims and Christians, and indigenous peoples; agriculture and fisheries are the dominant industries; four decades of social conflict—political, ethnic, and religious; Work Characteristics: small holder farmers
Rigour in data collection	B2. Building trust: worked closely with local NGOs to understand communities and build trust; Addressing Power Differential: offered separate focus groups for men and women; gender-matched researchers were assigned to specific focus groups and mixed researcher teams conducted the interviews; also worked to assure participation was voluntary and that participants understood the purpose and

Quality Domain	Notes on Bias
	uses of the information; Addressing language and culture: interviews were conducted in English and Tagalog; Tagalog translation was provided by the local NGOs; used story-telling techniques in data collection
Rigour in data analysis	B3. Focus of analysis: case study is focused at the level of the community (each of five municipalities); Diverse perspectives: debriefed in community meetings to better assure interpretation of data; Principles of Interpretation: draw from lenses of structural conditions and gendered differences in climate change; used a grounded theory approach and NVivo software
Findings supported by the data	B4. Author's study limitations: authors do not specifically point out limitations, but they do phrase their findings as relevant to "rural mixed farm landscapes and agriculture livelihoods in conflict-prone areas" ; Reviewer's study limitations: the gendered differences, in particular, should be viewed through the lens of the socio-cultural, religious norms of the community as well
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: both included (closed were ratings) while open included story-telling; Participant involvement in research design: local NGOs were involved in the design to the extent that they made recommendations and helped with sampling and securing participation

7. Darkwah 2002

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: Ghanian women (identifying primarily as Akan), small scale entrepreneurs trading at Makola market (26) or Abboblosie market (6) characterised as the "informal petty bourgeoisie;" most of the women were married although some were also single, widowed, divorced or separated; they were between the ages of 20-59; they had between none to six children; education levels varied from grade school ot post-graduate work; Community Characteristics: Accra, the Capitol of Ghana, Makola and Agboblosie markets; Work Characteristics: transnational traders (purchasing consumer goods such as shoes, bags, dresses, hair accessories, children's clothing, bed sheets, and kitchen items from countries foreign cities such as New York, London, Bangkok and Hong Kong and reselling in Ghana)
Rigour in data collection	B2. Building trust: author spent about 18 months in the study area in Ghana and was from Ghana, but found the trust-building difficult due to the election year and significant currency devaluation going on at the time of study start; she was able to get an introduction to the market women through a contact at the National Commission on Women and

Quality Domain	Notes on Bias
	Development, and then a snowball approach when each woman interviewed would introduce her to another woman; Addressing Power Differential: interviews were held in familiar locations where the interviewees have the power; Addressing language and culture: interviews were conducted in Twi, English, Twinglish (a mixture of Twi and English), and Pidgin English
Rigour in data analysis	B3. Focus of analysis: agency of the women and how the transnational traders operate within the country-level structural conditions and state deregulation and ; Diverse perspectives: the author brings in diverse perspectives, but at the same time the perspectives of husbands are represented by the wives and not the husbands directly; Principles of Interpretation: used systematic content analysis and Nvivo starting with three major themes and then developed mutually exclusive and exhaustive subthemes beneath; also engaged in process tracing
Findings supported by the data	B4. Author's study limitations: author notes that individual enabling factors are basic literacy in English and middle income status; also, there are many expat Ghananians around the world with whom the traders can connect; Reviewer's study limitations: the conclusion chapter discusses implications at a policy level for trade regulations, but this seems inappropriate given that the data collection and analysis focuses on the individual experiences of female transnational traders within primarily a single market in Ghana. Reviewer suggests that generalisability is more appropriate at the level of the individual women.
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: most data was collected through participant observation and informal discussions making mosst of it open-ended; Participant involvement in research design: the research was designed without involvement of the participants, but methods were tailored to the comfort level of the participants

8. Elias 2010

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: Gurunsi (derived from the Nuna peoples), Moose (the largest proportion of the areas inhabitants), and FulBe (were traditionally nomadic herders) women and men; Muslim and animist religious beliefs are practiced; polygamous marriages are common in the area, family size is typically between 6-16 members; Community Characteristics: rural village of Prata (short and long-term migrations to Ghana prevail), the peri-urban village of Lan (no health clinic, electricity, mill or market and limited potable water), and the town of Leo (large daily market, a hospital,

Quality Domain	Notes on Bias
	and multiple other commercial establishments) in the centre-west province of Sissili (home to the Gurunsi, who are now only 22% of the population) in center-west Burkina Faso, West Africa; a high migrant area (including Moose and FulBe); 90% of the approximately 208,000 people in Sissili are engaged in agriculture and schooled children (39%) is below the national average; the largest cash crop in the area is cotton but many crops are grown and breeding of farm animals is common; it also supplies major cities with firewood and 60% of the region is covered in uncultivated savanna; primary governance is still situated with the Gurunsi peoples and traditions, but the Moose have their own primary governance structure within that; Prata and Lan are more similar and have more conflict between the populations due to fewer resources and infrastructure; Work Characteristics: shea agroforestry and shea butter production; shea nut and butter vendors (one of the few culturally sanctioned female income-generating opportunities)
Rigour in data collection	B2. Building trust: the researcher had conducted research in the area previously and so had some existing contacts and understood the cultures of the peoples; researcher did some preliminary fieldwork in June/July 2005 and then returned for the period September 2006-March 2007; the researcher lived in two different households where a female shea butter maker was present; Addressing Power Differential: husbands and wives were interviewed separately; the researcher adopted local practices such as curtseying when greeting, ate and laundered clothing with the women, and helped in the shea butter production; Addressing language and culture: attended the annual UGPPK annual assembly meeting, and met with the village chiefs and elders to introduce herself and her study; sought permission from each individual interviewee and indicated to women it was acceptable to seek their husband's permission to participate if they thought it necessary; the researcher was accompanied by her husband who conducted the interviews with male participants; translators (who were gender and ethnicity-congruent and fluent in the local language and French) were hired because neither the researcher nor her husband understood the native languages sufficiently
Rigour in data analysis	B3. Focus of analysis: analyses are conducted at the community level with subgroup analyses by gender and other key characteristics; Diverse perspectives: sought perspectives of men and women, perspectives of different ethnic groups, perspectives from different parts of the grower-producer-vendor supply chain, from varying levels of rurality, and from members and nonmembers of the most predominant shea butter union; Principles of Interpretation: analysis occurs

Quality Domain	Notes on Bias
	through a conceptual framework integrating the literatures of feminist political ecology, traditional ecological knowledge, commodity chains, and sustainable livelihoods; reviewer could not find specific mention of analytic techniques used to develop themes from the data; much of the analysis seems to be quantitatively presented
Findings supported by the data	B4. Author's study limitations: author notes that younger women were more reluctant to speak with her or provided terse responses; men and older women were more willing to participate; Reviewer's study limitations: the researcher spoke to a large number of individuals thus deeply probing into community structures; limitations of context including sociocultural and government context remain
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: a mix of open and closed ended questions; Participant involvement in research design: it is not noted in the design, but participants did assist in the analysis regarding the ways of assessing wealth

9. Fröcklin et al. 2014

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: men and women with high involvement in the fisheries and willing to participate, including some youth (balance between men and women strong in 2010, but mostly women in 2005); Community Characteristics: Chwaka Bay, Zanzibar, Tanzania; Work Characteristics: tropical invertebrate fisheries (gastropods, bivalves and octopus)
Rigour in data collection	B2. Building trust: seem to suggest it was more difficult to build trust with the men (as indicated by a lower male participation rate in 2005); researchers followed people at work and into their homes; Addressing Power Differential: men and women from the same household were not interviewed; Addressing language and culture: indicate high illiteracy rates; authors used local translators to conduct interviews.
Rigour in data analysis	B3. Focus of analysis: differences in harvesting activities and experiences between men and women; Diverse perspectives: authors sought a diversity of perspective; it is not clear how themes were generated except that an effort was made to compare/contrast by gender; Principles of Interpretation: gender analysis, but some answers were converted to yes/no with quantitative analyses performed
Findings supported by the data	B4. Author's study limitations: author's notes mostly reflect quantitative limitations namely that more longitudinal data would be preferable; Reviewer's study limitations: in terms of the qualitative data of most interest here, it could be helpful

Quality Domain	Notes on Bias
	to have a little more information about the people and customs of Chwaka Bay to better understand to which other populations these findings could be most readily applied.
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: all interviews were open-ended, but the in-depth interviews probed more on the participants' perspectives, particularly around household structures; Participant involvement in research design: no participant-involved in research design was noted

10. Jones et al. 2012

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: women producers from Kenya, Tanzania, Uganda, India, Nepal, Nicaragua and Mexico participating in 16 fair trade organisations; Community Characteristics: between 2009-2011; Work Characteristics: work includes basket weaving, hand-stitching, handicrafts, textile-making, body scrub production, dried fruit, and organised agricultural production
Rigour in data collection	B2. Building trust: people gathering the information were either part of the associations to which the women belonged or were connected to the women through the association; Addressing Power Differential: see building trust; Addressing language and culture: see building trust. Since this was move of a bottom-up approach, the typical researcher-participant dynamic was not really present
Rigour in data analysis	B3. Focus of analysis: experiences of women producers participating in the fair trade organisations with a focus on key success factors; analysis was divided into seven case studies (at the country level); Diverse perspectives: the authors' note as a caveat, that not all women experienced benefits due to either male relatives seizing earnings or income too small to make a difference, but the focus of the analysis is on the positive gains; authors do report examples and analysis by fair trade group and by country to illustrate differences across experiences; Principles of Interpretation: appreciative inquiry approach
Findings supported by the data	B4. Author's study limitations: authors acknowledge that the bottom up method of data collection made it difficult to compare across sites because not all the same information was collected in each site; they also note that the study focuses only on the experience of producers—not on the other stages of the value chain; Reviewer's study limitations: the organisations participating in the action-research had a vested interest in its results; it is not clear how analyses may have attempted to provide a neutral frame or how particular themes were generated

Quality Domain	Notes on Bias
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: the first person narratives suggest a predominantly open-ended format; Participant involvement in research design: this was an action-research partnership and as such the organisations participating had some hand in shaping the research design

11. Kelly et al. 2014

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: men and women were interviewed but demographics were not provided; Community Characteristics: eastern Democratic Republic of the Congo; two territories in South Kivu, Walungu and Kalehe; Work Characteristics: artisanal and small scale mining (of gold, coltan and cassiterite in six sites)
Rigour in data collection	B2. Building trust: no information provided about this; Addressing Power Differential: no information provided about this; Addressing language and culture: no information provided about this
Rigour in data analysis	B3. Focus of analysis: experiences of women in these mining towns; Diverse perspectives: included the divergent perspectives of men and women; Principles of Interpretation: examined for emerging themes and within-theme variations were categorised to explore complexities and generate hypotheses.
Findings supported by the data	B4. Author's study limitations: not indicated; Reviewer's study limitations: It is hard to determine the study limitations given the inadequate information about how data were gathered or analyzed
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: semi-structured interviews; Participant involvement in research design: no indication that participants were involved in design

12. Koomson 2017

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: 40 women and six men working in the gold mines; does not provide detailed demographics, but indicates only three of the 40 women knew their age; Community Characteristics: Talensi District, upper east region of Ghana, agriculture is the primary economic activity of the area; it is also known for making baskets and smocking; it was formerly industrial but now relies heavily on extractive industries of gold and stone; Work Characteristics: small scale gold-mining activities; activities are segregated by gender; interviews conducted in four small-scale gold-mining

Quality Domain	Notes on Bias
	communities; the sites are in close proximity and workers flow across them based on demand
Rigour in data collection	B2. Building trust: researcher lived with a local woman in one of the four communities for a one-year period between 2014-2015; Addressing Power Differential: researcher mingled with the women and lived in the community; she also actively tried to balance the power differential by providing the women with information about funds they could be seeking to support their work; Addressing language and culture: Talensi believe gender roles are cyclical, are linked to religious beliefs and controlled by the ancestral world; the people of the region are typically referred to as Frafra; spoke in Twi
Rigour in data analysis	B3. Focus of analysis: experiences of the women; Diverse perspectives: yes, a diversity of perspectives are presented; the research acknowledges her native roots, but intentionally distanced herself from her own local knowledge to be open to what she was hearing; Principles of Interpretation: used ethnographic approach through anthropological and social work lenses
Findings supported by the data	B4. Author's study limitations: suggests relevance for other similar locations; Reviewer's study limitations: Reviewer would caution against the generalisation that this study demonstrates that previous frames of study are outdated regarding the male-dominated patrilineal heritage of the area. The focus of the research—women working in mining—suggests that the experiences of these women may be different than those working in more traditional spaces.
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: Most of the data collection is open-ended and occurs through informal conversations rather than formal interviews; Participant involvement in research design: the participants were not involved in the research design per se, but the informal nature of the research means it was co-produced and the researcher took care to use methods that felt natural to the participants.

13. Lauwo 2018

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: a mix of men and women were interviewed; Community Characteristics: Tanzania, 2015; Work Characteristics: two largest transnational gold-mining sector in Tanzania and corporate social responsibility (CSR) involvement
Rigour in data collection	B2. Building trust: interviews conducted January-March 2015; researcher notes that there was fear and suspicion of the women who did not trust the interviewers would keep their information confidential and especially not report it to the mining company; Addressing Power Differential: Sought out

Quality Domain	Notes on Bias
	multiple individuals at varying points in the power differential; Addressing language and culture: not explicitly stated how this was dealt with in the data collection process
Rigour in data analysis	B3. Focus of analysis: primarily individual perspectives or perspectives about individual experiences in contrast with CSR materials; Diverse perspectives: multiple data sources did allow for exploration of diverse perspectives to an extent, but it is not clear that diverse perspectives were explored; Principles of Interpretation: feminist analysis; interpretive ethnographic case studies; thematically analyzed within theoretical framework
Findings supported by the data	B4. Author's study limitations: author acknowledges that many women interviewed were reluctant to fully discuss concerns about their workplace experiences; Reviewer's study limitations: It is not clear how many people the researchers could have interviewed compared to how many they did interview, how incomplete or biased the accounts were, and it seems that the researcher's position was strongly interpretive given the particular lens used
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: interview protocols were designed to allow for participant-guided direction; Participant involvement in research design: no involvement of participants in design stage was noted

14. Manzanera-Ruiz et al. 2016

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: women, mostly Muslim, engaged in agriculture and small business; interviewees included married men with average age of 55 years, and women (separated, widowed, married with average age of 45 years); little formal education; Community Characteristics: Mamba in northern Tanzania (a mountainous area), 2006-2009, rainy seasons govern crop production; Work Characteristics: coffee trade and tomato cultivation (tomatoes and coffee are two of the top four crops in the area; both are focused on exportation)
Rigour in data collection	B2. Building trust: researcher lived with a local family in Mamba for a year and was introduced as wanting to study and learn; Addressing Power Differential: power differentials of men and women, and women of differing ages are noted; interviews were constructed to allow people of varying power differentials to participate; Addressing language and culture: Islam is primary religion, and polygamous marriages are common practice; men tend to dominate in the cash crop production; patriarchal practices are prominent; interviews were conducted in Kiswahili

Quality Domain	Notes on Bias
Rigour in data analysis	B3. Focus of analysis: women's motivation and interests in collective action for trade and agriculture; Diverse perspectives: sought perspectives of men and women, and women of different ages; Principles of Interpretation: ethnographic, thick description
Findings supported by the data	B4. Author's study limitations: author provides significant context but does not directly indicate limitations; Reviewer's study limitations: context is important in the interpretation of findings
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: both are indicated, and participant-observation is one method; Participant involvement in research design: no involvement in design indicated

15. Mutopo 2014

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: 20 households, including married, widowed, single and divorced women; Community Characteristics: Merrivale Farm, Tavaka Village, southeastern Zimbabwe, and trips to South Africa during land reform programme 2009-2012; land reform efforts gave women access to land in ways not previously available in the patriarchal society: 50% of women had accessed their own land rights as women separate from men at the study site; Work Characteristics: agriculture (livestock and crops) and trade (local and cross-border)
Rigour in data collection	B2. Building trust: time period 2009-2012; resident at the farm conducted the study; Addressing Power Differential: segmented focus groups to address gender and age differences; Addressing language and culture: interviewer spoke and understood Shona, the local language; aware of sensitive to local reform efforts and how that has changed power dynamics
Rigour in data analysis	B3. Focus of analysis: relationship of gendered roles and land reform; Diverse perspectives: women and men, and researcher observation; Principles of Interpretation: ethnographic study, conflict paradigm, and eclectic analysis of themes
Findings supported by the data	B4. Author's study limitations: author provides significant context; Reviewer's study limitations: context provides the limitations; experiences may not be transferrable to other contexts
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: Yes, because some data collection conducted as part of the daily routine; Participant involvement in research design: no indication that participants were involved

16. Sidibé et al. 2012

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: individual characteristics of women not provided because they were not the focal unit of analysis; Community Characteristics: Mali (at Zantiebougou in the Bougouni prefecture and Skasson near the cooperative's location between 2010-2011); Work Characteristics: Malian shea sector
Rigour in data collection	B2. Building trust: multi-month, multi-method engagement; Addressing Power Differential: women in different parts of the supply chain and at different levels included; Addressing language and culture: Data were collected in 25 group meetings involving nut collectors and processors and support agency representatives; 28 key informant interviews, direct observations, and secondary data from project documents, reports; and seven former members; and all regularly scheduled meetings between the cooperatives and support agencies were attended and monitored)
Rigour in data analysis	B3. Focus of analysis: community-level cooperative of women in Mali, the coop is a pioneer in its approach and working with support organisations; Diverse perspectives: sources of data suggest diverse perspectives were gathered, but it is not clear how analysis was conducted and the how the perspectives were merged at the within-cooperative level; cross cooperative perspectives, however, are the primary focus of the analysis; Principles of Interpretation: not provided
Findings supported by the data	B4. Author's study limitations: not much noted; Reviewer's study limitations: conclusions provide an alternate perspective on viewing similar markets providing grounds for exploration
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: Yes, because some data collection observation of regular activities; Participant involvement in research design: no indication that participants involved in this way

17. Ugwu et al. 2016

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: 20 business women, aged 27-64, typically married, none to seven children, lived with at least one elderly person; Community Characteristics: low-to-middle income country (Nigeria); Work Characteristics: trading petty goods in very small businesses, in a market in a city in South-Eastern Nigeria, in trade from two-17 years
Rigour in data collection	B2. Building trust: lead author and lead interviewer were natives of the local community; Addressing Power Differential: not discussed; Addressing language and culture:

Quality Domain	Notes on Bias
	recognised difficulty of the translation of the concept of "balance" based on other studies; worked to assure understanding before participation and interviewing; interviews conducted in the preferred language (typically Igbo although sometimes mixed with English)
Rigour in data analysis	B3. Focus of analysis: daily lives of women; Diverse perspectives: multiple researchers were involved in the analysis and care was taken to consider multiple perspectives in analysis; Principles of Interpretation: report use of "reflective life-world approach" and "interpretative phenomenology"; not only read transcripts but listed to recordings to garner themes of interest and emergent themes, and hear inflections or hesitations
Findings supported by the data	B4. Author's study limitations: note small sample and translation challenges even though interviewer and author were native and they used a professional translator; Reviewer's study limitations: no additional limitations noted although study is very specific on characteristics of women interviewed
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: 12 questions, mix of open and closed-ended, semi-structured interviews; Participant involvement in research design: no

18. Wrigley-Asante 2013

Quality Domain	Notes on Bias
Rigour in sampling	B1. Individual characteristics: 40 Ghanian women (from three primary areas), 75% married or living with parents, 87.5% 25-54, none over 54, majority had three to four children, mix of education levels, 70% Muslim, 30% Christian; Community Characteristics: 2010 two markets in Accra, Ghana; Work Characteristics: cross-border trade in established markets
Rigour in data collection	B2. Building trust: some interviewees introduced to study by former ones; Addressing Power Differential: explained study and sought consent; not clear how power addressed; Addressing language and culture: Conducted in the market in the Twi language
Rigour in data analysis	B3. Focus of analysis: individual perspectives with a culturally-sensitive lens; Diverse perspectives: ages of women provided by quotes, most are indicated in the older end of the age band, other characteristics of women for the quotes not shared, but that could be to protect identities; Principles of Interpretation: simply said "qualitative methods" but presentation of the data suggests an interest in surfacing themes from interviewee's perspectives
Findings supported by the data	B4. Author's study limitations: recognises it is non-generalisable but notes it surfaces important perspectives;

Quality Domain	Notes on Bias
	Reviewer's study limitations: detail on characteristics helps readers discern inherent biases
Privileging participant experiences/perspectives	B6. Open-ended vs. closed-ended questions: all questions were open-ended with ability to add questions based on observation; Participant involvement in research design: participants were not involved in design but were involved in recruitment of other participants

APPENDIX 12. THEMES IDENTIFIED BY STUDY

THEMES	1. Afolabi (2015)	2. Akiwumi (2011)	3. Akter et al. (2017)	4. Austin (2017)	5. Boateng et al. (2014)	6. Chandra et al. (2017)	7. Darkwah (2002)	8. Elias (2010)	9. Fröcklin et al. (2014)	10. Jones et al. (2012)	11. Kelly et al. (2014)	12. Koomson (2017)	13. Lauwo (2018)	14. Manzanera-Ruiz et al. (2016)	15. Mutopo (2011)	16. Sidibé et al. (2012)	17. Ugwu et al. (2016)	18. Wrigley-Asante (2013)
Quality of study	H	M	H	H	M	H	H	H	M	M	M	M	M	H	M	M	H	H
Gender norms, culture, and laws (15)	x	x	x	x		x	x	x	x	x	x	x	x	x	x			x
Gender norms (13)	x	x	x	x		x	x	x	x	x	x	x		x	x			
Violence and sexual harassment (5)	x			x							x		x					x
Gender-related laws and regulations (4)											x	x	x		x			
Discrimination (5)	x						x				x		x	x				
Access to resources (14)	x	x	x	x	x		x	x	x	x		x		x	x	x		x
Access to credit and capital	x	x	x	x	x		x	x	x	x		x		x		x		x
Access to land	x		x									x		x		x		
Networks and organisations (14)	x	x	x	x			x			x	x	x	x	x	x	x	X	x
Formal cooperatives (12)	x	x	x	x						x		x	x	x	x	x	X	x
Social and kinship networks (6)	x	x					x			x	x							x
Firm and organisation strategies (2)										x			x					
External support (gov't or organisations) (2)										x		x						
Technology, skills, and education (11)	x	x	x		x		x		x	x			x			x	x	x
Technology (7)	x	x	x		x					x						x		x
Technical, business, and management skills (8)	x		x		x		x		x	x			x				x	
Global macro factors (economic and non-economic) (12)	x	x		x		x	x		x	x		x	x	x	x	x		
Non-gender-related macroeconomic factors (8)				x			x			x		x	x	x	x	x		
Male employment patterns (4)	x	x										x		x				
Environmental degradation (4)		x		x		x			x									
Unpaid care and women's time poverty (11)	x	x	x	x			x			x	x	x	x	x			x	
Work-life conflict including time burden (9)	x	x	x	x						x		x	x	x			x	
Physical demands and health needs (7)				x			x			x	x	x	x	x				
Other (10)	x	x			x		x			x	x	x			x		x	x
Socioeconomic status of individuals (4)										x		x					x	x
Corruption (5)		x					x				x				x			x
Transportation (3)	x				x													x

APPENDIX 13. STUDY THEMES AND CHARACTERISTICS OF INCLUDED STUDIES

Gender Norms, Culture, and Laws

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (15)	1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18	High (n=8) Medium (n=7)	Commercial Agriculture (n=10) Trade (n=9) Mining (n=4)	Sub-Saharan Africa (n=13) East Asia (n=3) South Asia (n=1) Latin America (n=1)	LIC (n=9) LMIC (n=8) UMIC (n=3)	High (n=9) Declining (n=8) Aging (n=2)	Better than avg. (n=12) Worse than avg. (n=3) NA (n=2)	Better than avg. (n=4) Worse than avg. (n=13) NA (n=1)
Gender norms (13)	1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15	High (n=7) Medium (n=6)	Commercial Agriculture (n=10) Trade (n=8) Mining (n=3)	Sub-Saharan Africa (n=11) East Asia (n=3) South Asia (n=1) Latin America (n=1)	LIC (n=8) LMIC (n=7) UMIC (n=3)	High (n=8) Declining (n=7) Aging (n=2)	Better than avg. (n=10) Worse than avg. (n=3) NA (n=2)	Better than avg. (n=4) Worse than avg. (n=11) NA (n=1)
Violence and sexual harassment (5)	1, 4, 11, 13, 18	High (n=3) Medium (n=2)	Commercial Agriculture (n=2) Trade (n=3)	Sub-Saharan Africa (n=5) East Asia (n=0) South Asia (n=0)	LIC (n=3)	High (n=4)	Better than avg.	Better than avg.

			Mining (n=2)	Latin America (n=0)	LMIC (n=2) UMIC (n=0)	Declining (n=1) Aging (n=0)	(n=3) Worse than avg. (n=1) NA (n=1)	(n=0) Worse than avg. (n=4) NA (n=1)
Gender-related laws and regulations (4)	11, 12, 13, 15	High (n=0) Medium (n=4)	Commercial Agriculture (n=1) Trade (n=1) Mining (n=3)	Sub-Saharan Africa (n=4) East Asia (n=0) South Asia (n=0) Latin America (n=0)	LIC (n=3) LMIC (n=1) UMIC (n=0)	High (n=2) Declining (n=2) Aging (n=0)	Better than avg. (n=3) Worse than avg. (n=0) NA (n=1)	Better than avg. (n=0) Worse than avg. (n=4) NA (n=1)
Discrimination (5)	1, 7, 11, 13, 14	High (n=3) Medium (n=2)	Commercial Agriculture (n=2) Trade (n=3) Mining (n=2)	Sub-Saharan Africa (n=5) East Asia (n=1) South Asia (n=0) Latin America (n=0)	LIC (n=3) LMIC (n=2) UMIC (n=1)	High (n=4) Declining (n=1) Aging (n=1)	Better than avg. (n=3) Worse than avg. (n=1) NA (n=1)	Better than avg. (n=1) Worse than avg. (n=4) NA (n=1)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pdf). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).

Access to Credit, Capital, and Land

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (14)	1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 14, 15, 16, 18	High (n=7) Medium (n=7)	Commercial Agriculture (n=10) Trade (n=11) Mining (n=2)	Sub-Saharan Africa (n=13) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=8) LMIC (n=8) UMIC (n=2)	High (n=9) Declining (n=7) Aging (n=2)	Better than avg. (n=10) Worse than avg. (n=5) NA (n=1)	Better than avg. (n=3) Worse than avg. (n=12) NA (n=2)
Access to credit and capital (10)	1, 2, 3, 4, 7, 8, 9, 10, 12, 14	High (n=6) Medium (n=4)	Commercial Agriculture (n=9) Trade (n=10) Mining (n=2)	Sub-Saharan Africa (n=12) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=7) LMIC (n=8) UMIC (n=2)	High (n=9) Declining (n=6) Aging (n=2)	Better than avg. (n=9) Worse than avg. (n=5) NA (n=1)	Better than avg. (n=3) Worse than avg. (n=11) NA (n=2)
Access to land (5)	1, 3, 12, 14, 15	High (n=4) Medium (n=1)	Commercial Agriculture (n=4) Trade (n=3) Mining (n=1)	Sub-Saharan Africa (n=4) East Asia (n=1) South Asia (n=0) Latin America (n=0)	LIC (n=2) LMIC (n=3)	High (n=2) Declining (n=3)	Better than avg. (n=4) Worse	Better than avg. (n=1) Worse

					UMIC (n=1)	Aging (n=1)	than avg. (n=1)	than avg. (n=4) NA (n=1)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pd). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).

Networks and Organisations

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (14)	1, 2, 3, 4, 7, 10, 11, 12, 13, 14, 15, 16, 17, 18	High (n=7) Medium (n=7)	Commercial Agriculture (n=8) Trade (n=10) Mining (n=4)	Sub-Saharan Africa (n=13) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=8) LMIC (n=7) UMIC (n=2)	High (n=9) Declining (n=6) Aging (n=2)	Better than avg. (n=9) Worse than avg. (n=4) NA (n=2)	Better than avg. (n=3) Worse than avg. (n=12) NA (n=2)
Formal cooperatives (12)	1, 2, 3, 4, 10, 12, 13, 14, 15, 16, 17, 18	High (n=6) Medium (n=6)	Commercial Agriculture (n=8) Trade (n=9) Mining (n=3)	Sub-Saharan Africa (n=11) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=7) LMIC (n=6) UMIC (n=2)	High (n=8) Declining (n=5) Aging (n=1)	Better than avg. (n=8) Worse than avg. (n=4) NA (n=1)	Better than avg. (n=2) Worse than avg. (n=10) NA (n=2)
Social and kinship networks (6)	1, 2, 7, 10, 11, 18	High (n=3) Medium (n=3)	Commercial Agriculture (n=3) Trade (n=5) Mining (n=2)	Sub-Saharan Africa (n=6) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=3) LMIC (n=4)	High (n=4) Declining (n=3)	Better than avg. (n=3) Worse	Better than avg. (n=2) Worse

					UMIC (n=1)	Aging (n=1)	than avg. (n=2) NA (n=2)	than avg. (n=5) NA (n=1)
Firm and organisation strategies (2)	10, 13	High (n=0) Medium (n=2)	Commercial Agriculture (n=1) Trade (n=1) Mining (n=1)	Sub-Saharan Africa (n=2) East Asia (n=0) South Asia (n=1) Latin America (n=1)	LIC (n=2) LMIC (n=1) UMIC (n=1)	High (n=2) Declining (n=1) Aging (n=0)	Better than avg. (n=2) Worse than avg. (n=1)	Better than avg. (n=1) Worse than avg. (n=2)
External support (gov't or organisations) (2)	10, 12	High (n=0) Medium (n=2)	Commercial Agriculture (n=1) Trade (n=1) Mining (n=1)	Sub-Saharan Africa (n=2) East Asia (n=0) South Asia (n=1) Latin America (n=1)	LIC (n=1) LMIC (n=2) UMIC (n=1)	High (n=1) Declining (n=2) Aging (n=0)	Better than avg. (n=2) Worse than avg. (n=1)	Better than avg. (n=1) Worse than avg. (n=2)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pd). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).

Technology, Skills and Education

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (11)	1, 2, 3, 5, 7, 9, 10, 13, 16, 17, 18	High (n=5) Medium (n=6)	Commercial Agriculture (n=6) Trade (n=8) Mining (n=2)	Sub-Saharan Africa (n=10) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=5) LMIC (n=7) UMIC (n=2)	High (n=8) Declining (n=4) Aging (n=2)	Better than avg. (n=6) Worse than avg. (n=5) NA (n=1)	Better than avg. (n=3) Worse than avg. (n=8) NA (n=3)
Technology (7)	1, 2, 3, 5, 10, 16, 18	High (n=3) Medium (n=4)	Commercial Agriculture (n=5) Trade (n=6) Mining (n=1)	Sub-Saharan Africa (n=6) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=3) LMIC (n=5) UMIC (n=2)	High (n=5) Declining (n=3) Aging (n=1)	Better than avg. (n=3) Worse than avg. (n=4) NA (n=1)	Better than avg. (n=2) Worse than avg. (n=5) NA (n=2)
Technical, business and management skills (8)	1, 3, 5, 7, 9, 10, 13, 17	High (n=4) Medium (n=4)	Commercial Agriculture (n=4) Trade (n=5) Mining (n=1)	Sub-Saharan Africa (n=7) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=3) LMIC (n=6)	High (n=6) Declining (n=3)	Better than avg. (n=5) Worse	Better than avg. (n=3) Worse

					UMIC (n=2)	Aging (n=2)	than avg. (n=4)	than avg. (n=5) NA (n=3)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pd). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).

Global Macro Factors (Economic and Non-Economic)

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (12)	1, 2, 4, 6, 7, 9, 10, 12, 13, 14, 15, 16	High (n=5) Medium (n=7)	Commercial Agriculture (n=9) Trade (n=8) Mining (n=3)	Sub-Saharan Africa (n=11) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=8) LMIC (n=5) UMIC (n=1)	High (n=8) Declining (n=5) Aging (n=1)	Better than avg. (n=9) Worse than avg. (n=3) NA (n=1)	Better than avg. (n=3) Worse than avg. (n=10) NA (n=1)
Non-gender-related macroeconomic factors (8)	4, 7, 10, 12, 13, 14, 15, 16	High (n=3) Medium (n=5)	Commercial Agriculture (n=5) Trade (n=6) Mining (n=2)	Sub-Saharan Africa (n=8) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=6) LMIC (n=3) UMIC (n=1)	High (n=5) Declining (n=4) Aging (n=1)	Better than avg. (n=7) Worse than avg. (n=2)	Better than avg. (n=2) Worse than avg. (n=8)
Male employment patterns (4)	1, 2, 12, 14	High (n=2) Medium (n=2)	Commercial Agriculture (n=3) Trade (n=3) Mining (n=2)	Sub-Saharan Africa (n=4) East Asia (n=0) South Asia (n=0) Latin America (n=0)	LIC (n=2) LMIC (n=2) UMIC (n=0)	High (n=3) Declining (n=1) Aging (n=0)	Better than avg. (n=2) Worse than	Better than avg. (n=0) Worse than

							avg. (n=1) NA (n=1)	(n=3) NA (n=1)
Environmental degradation (4)	2, 4, 6, 9	High (n=2) Medium (n=2)	Commercial Agriculture (n=4) Trade (n=2) Mining (n=1)	Sub-Saharan Africa (n=3) East Asia (n=1) South Asia (n=0) Latin America (n=0)	LIC (n=3) LMIC (n=1) UMIC (n=0)	High (n=3) Declining (n=1) Aging (n=0)	Better than avg. (n=3) Worse than avg. (n=0) NA (n=1)	Better than avg. (n=1) Worse than avg. (n=3)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pdf). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).

Unpaid Care and Women's Time Poverty

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (11)	1, 2, 3, 4, 7, 10, 11, 12, 13, 14, 17	High (n=6) Medium (n=5)	Commercial Agriculture (n=6) Trade (n=7) Mining (n=4)	Sub-Saharan Africa (n=10) East Asia (n=2) South Asia (n=1) Latin America (n=1)	LIC (n=6) LMIC (n=6) UMIC (n=2)	High (n=8) Declining (n=4) Aging (n=2)	Better than avg. (n=7) Worse than avg. (n=3) NA (n=2)	Better than avg. (n=3) Worse than avg. (n=9) NA (n=2)
Work-life conflict including time burden (9)	1, 2, 3, 4, 10, 12, 13, 14, 17	High (n=5) Medium (n=4)	Commercial Agriculture (n=6) Trade (n=6) Mining (n=3)	Sub-Saharan Africa (n=8) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=5) LMIC (n=5) UMIC (n=2)	High (n=7) Declining (n=3) Aging (n=1)	Better than avg. (n=6) Worse than avg. (n=3) NA (n=1)	Better than avg. (n=2) Worse than avg. (n=7) NA (n=2)
Physical demands and health needs (7)	4, 7, 10, 11, 12, 13, 14	High (n=3) Medium (n=4)	Commercial Agriculture (n=3) Trade (n=4) Mining (n=3)	Sub-Saharan Africa (n=7) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=5) LMIC (n=3)	High (n=5) Declining (n=3)	Better than avg. (n=6) Worse	Better than avg. (n=2) Worse

					UMIC (n=1)	Aging (n=1)	than avg. (n=1) NA (n=1)	than avg. (n=7)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pdf). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).

Other

	Studies[1]	Study Quality[2]	Sectors	Regions	Country Characteristics			
					Income[3]	Fertility[4]	GAP[5]	GII[6]
Overall (10)	1, 2, 5, 7, 10, 11, 12, 15, 17, 18	High (n=4) Medium (n=6)	Commercial Agriculture (n=4) Trade (n=7) Mining (n=3)	Sub-Saharan Africa (n=9) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=4) LMIC (n=6) UMIC (n=1)	High (n=5) Declining (n=5) Aging (n=1)	Better than avg. (n=5) Worse than avg. (n=3) NA (n=2)	Better than avg. (n=2) Worse than avg. (n=7) NA (n=2)
Socioeconomic status of individuals (4)	10, 12, 17, 18	High (n=2) Medium (n=2)	Commercial Agriculture (n=1) Trade (n=3) Mining (n=1)	Sub-Saharan Africa (n=4) East Asia (n=1) South Asia (n=1) Latin America (n=1)	LIC (n=1) LMIC (n=4) UMIC (n=1)	High (n=2) Declining (n=3) Aging (n=0)	Better than avg. (n=3) Worse than avg. (n=2)	Better than avg. (n=1) Worse than avg. (n=3) NA (n=1)
Corruption (5)	2, 7, 11, 15, 18	High (n=2) Medium (n=3)	Commercial Agriculture (n=2) Trade (n=4) Mining (n=2)	Sub-Saharan Africa (n=5) East Asia (n=1) South Asia (n=0) Latin America (n=0)	LIC (n=3) LMIC (n=2)	High (n=2) Declining (n=3)	Better than avg. (n=3) Worse	Better than avg. (n=1) Worse

					UMIC (n=0)	Aging (n=1)	than avg. (n=3) NA (n=2)	than avg. (n=5)
Transportation (3)	1, 5, 18	High (n=2) Medium (n=1)	Commercial Agriculture (n=1) Trade (n=3) Mining (n=0)	Sub-Saharan Africa (n=3) East Asia (n=0) South Asia (n=0) Latin America (n=0)	LIC (n=3) LMIC (n=0) UMIC (n=0)	High (n=2) Declining (n=1) Aging (n=0)	Better than avg. (n=2) Worse than avg. (n=2)	Better than avg. (n=0) Worse than avg. (n=1) NA (n=2)

Notes: Cell totals may exceed the number of studies in the row because some studies were coded into multiple categories. The unit in this table is number of studies with each attribute. If a study included multiple countries with a particular attribute (for example, income level), it was only counted once for including any country with that attribute. 1. Study-level information is summarised in Appendix 9. 2. An explanation of study quality assessments is provided in section 3.1.9. 3. World Bank Income Classification Level (World Bank 2017, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups). 4. UN Fertility Level Classification (UN 2013, http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final_1.pdf). 5. Global GAP rating is 68%; "better than avg." indicates above-average score indicating greater parity (World Economic Forum 2017, http://www3.weforum.org/docs/WEF_GGGR_2017.pdf). 6. Gender Inequality Index (GII) world rating is 0.441; "better than avg." indicates below-average score indicating greater parity (UN 2017, http://hdr.undp.org/en/composite/GII).