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Gender equality in the coffee sector

GENDER EQUALITY IN THE COFFEE SECTOR

1. INTRODUCTION

1. Women contribute significantly to global agriculture and food security. However, the degree of female involvement differs at the various levels of agri-value chains. Women's share in agricultural labour ranges from 20% in Latin America to almost 50% in Asia and Sub-Saharan Africa, while globally between 10 and 20% of all landholders are women (FAO, 2011). Beyond farm level, women tend also to be less represented in farmer organizations and cooperatives, in roles interacting in formal markets, and in trading and processing (IFC, 2016).

2. As farmers, women face constraints in accessing production factors such as land and inputs but also public services such as extension and training programmes. This differential in access to resources translates into a gender gap in agronomic and economic outcomes. Productivity levels are significantly lower among female farmers compared to their male peers.

3. Given the importance of women's contribution in global agriculture, closing the gender gap in farming and empowering women along agri-value chains contributes to the Sustainable Development Goals (SDG) on gender equality and the whole Agenda 2030 adopted by the United Nations¹. Improved livelihoods and rural incomes derived from farming would also have wider benefits on household welfare, ranging from improved nutritional status, poverty eradication and prosperity. Closing the gender gap to spur growth in agricultural productivity can make a crucial contribution in meeting the rising demand for coffee worldwide. Unlocking these productivity reserves is needed, since future growth in global output is at risk due to emerging challenges such as climate change.

4. Women contribute to the coffee sector at all levels of the global coffee value chain². However, this study focuses on the role of women as coffee growers at farm level.

5. The aim of this study is to (i) review empirical evidence from both the agricultural sector more widely and the coffee sector to establish the size of the gender gap in agriculture and its determinants. Furthermore, the study will (ii) identify approaches of the public and private sectors with the aim of closing the gender gap and meet the SDGs. Finally, (iii) some proposals are made as to how the ICO can actively promote gender equality in the coffee sector, in particular among its Member countries, by raising awareness among stakeholders and facilitating interventions through public-private partnership.

¹ For more information on SDG 5, see <http://www.un.org/sustainabledevelopment/gender-equality/>

²

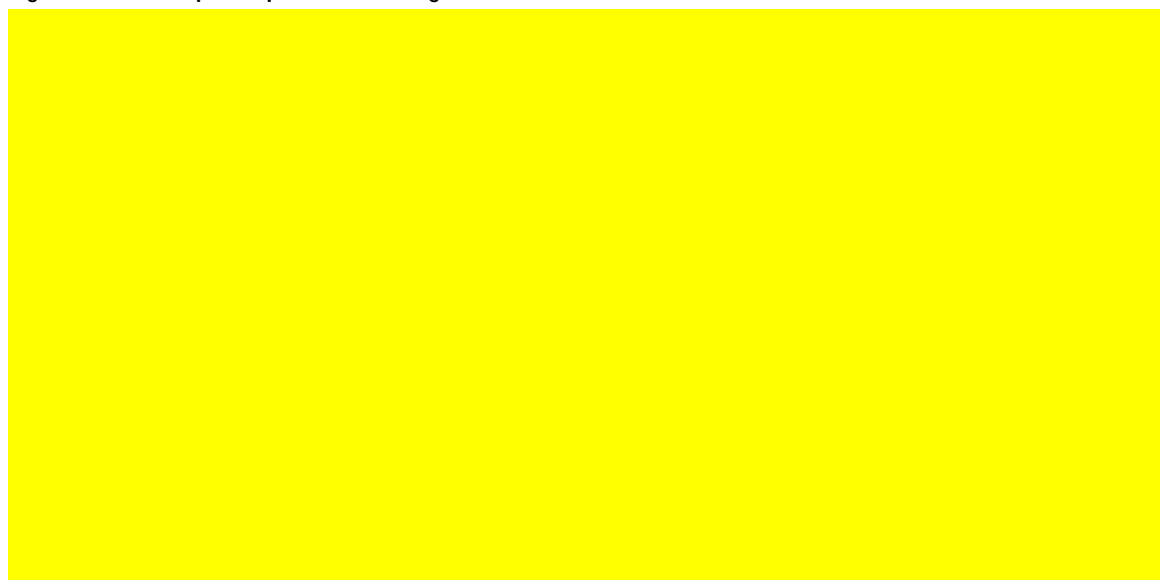
that 51% of men drink coffee 03.etaa03.etary while 33% of women (Demura e(t)1.6P al., 2013)

2. MEASURING THE GENDER GAP

2.1. Women in agriculture and coffee

6. According to the Food and Agriculture Organization (FAO), approximately 43% of the global rural labour force in agriculture is provided by women, on average. Female household heads (HH-head) make up on average 15% of agricultural land holders in Sub-Saharan Africa and well over 25% in Latin America, while the share in Asia is significantly lower at less than 5% (FAO, 2011). This study covers rural households engaged in the full range of agricultural activities from subsistence farming to commercial agriculture, from annual or tree crop production to livestock farming (Figure 1).

Figure 1: Female participation in the agricultural sector*



* Simple average of country-level data

Source: Own computation based on FAO (2011)

7. Rigorous studies on the coffee sector are relatively scarce but existing evidence suggests that the level of female participation in growing coffee is not significantly different from the role of women in other agricultural sub-sectors (Table 1). For example, Meemken and Qaim (2018) found that in a representative sample in Uganda, 23% of coffee farming households were headed by women. In neighbouring Kenya, two cooperatives surveyed by Dijkdrenth (2015) had 29% and 34% female members, respectively. A study by Lyon et al. (2010) found that in Mexico and Central America the share of women registered Fairtrade-organisations

Figure 2: Female participation in the coffee sector*

* Simple average of country-level and regional data

Source: Own computation based on country level / regional data in Annex Table 1

8. While these figures on women-operated coffee farms provide an indicative measure of women's contribution to the coffee sector, some methodological limitations become evident. Besides women who head a coffee-growing household, a large number of women contribute labour in male-headed households, but are not covered by these statistics. Hence, estimates based on the shares of female ownership of land (de jure or de facto) likely underestimate the contribution of women in agriculture.

9. In some world regions, e.g. West Africa, there is shared responsibility for farming land with men and women managing different plots (Croppenstedt, 2013). This intra-household distribution of agricultural activities poses a challenge to data collection and research, as household surveys often do not provide a detailed breakdown of information by gender. However, one previous study carried out by the International Trade Centre covering 15 countries showed that female participation in the total labour force used for field work in coffee is around 70% while roughly 20% of coffee farms are operated by women (ITC, 2008).

10. With these limitations in mind, it can nevertheless be concluded that the role of women in coffee production is crucial and similar in significance to that in other agricultural sub-sectors. Accordingly, many of the findings from studies in the area of gender equality in the broader agricultural sector, which will be presented in the following study,

2.2. Productivity gap

11. While female participation in agricultural activities in rural households is indispensable, the economic returns of women in agriculture are often lower than those of their male peers. Research has shown that women harvest smaller crops and are less likely to sell crops to markets, leading to lower farm income, negatively affecting rural livelihoods and household welfare.

12. Comparing female- and male-headed households in Ethiopia, Tiruneh et al. (2001) find 35% lower yields on farms managed by women. Using a sample of rural Ethiopian households, Aguilar et al. (2015) find that in terms of value of production per hectare, female-headed households are 23% less productive than male-headed households. However, the differences in output may be confounded by differences in access to inputs and knowledge between these households (FAO, 2011). Measures of yield differentials within a household can partially control for structural differences. However, empirical evidence on gender-related productivity differences within households confirms the existence of a stark gender gap. For example, studies from West-Africa suggest that plots managed by men have higher yields than those of women. Udry et al. (1995) recorded 10-15% lower yields achieved by women. Existing intra-household differences between male and female farmers are hence caused by other factors than household-level market access.

13. Specific studies in the coffee sector comparing gender differences in productivity are scarce. One study conducted in Ecuador and Colombia shows that female-headed farms have 2.5% lower yields, but the difference is not statistically significant (Avila and Useche, 2016).

3. DETERMINANTS OF PRODUCTIVITY GAPS

14. The gender agricultural productivity gap is mainly the result of differences in access to resources. Gender differentials in agricultural and economic outcomes decrease or disappear when taking into account women's endowments, for example education, farm size, access to product and factor markets, credit and public services such as extension (Aguilar et al., 2014). The residual gender gap in outcomes is explained by structural differences between female and male farmers in their returns to production factors³.

15. In the remainder of this section, factors determining the gender productivity gap in agriculture and the coffee sector will be examined in more detail.

³ For details on the decomposition of gender differentials in agricultural production refer to Aguilar et al. (2014).

3.1. Land

16. Land is the most important agricultural production factor and provides the basis for growing crops or holding livestock. Land, when farmed sustainably, can be passed on through generations, providing a livelihood for rural communities. Importantly, in areas with functioning property markets, land can also be used as collateral to obtain finance from commercial lenders. As such it is vital to secure loans for seasonal inputs and particularly for long-term investments in agricultural enterprises.

17. It has been shown that, in the context of low- and middle-income countries, women have less access to land than men (Croppenstedt et al. 2013). For example, 45% of male-headed households in rural Nicaragua own land, compared to only slightly more than 10% of households headed by women. In Vietnam, the differences are less pronounced with land ownership rates of female- and male-headed households reaching 70% and 85%, respectively. Furthermore, male-headed households usually control larger land plots.

18. Where gender differences in land ownership are particularly stark, this is often the result of customary practices that limit access to and rights over land. Reasons explaining the differential are often country-specific and include male preference in inheritance, as well as marriage and male bias in land redistribution programmes (Melesse, Dabissa, and Bulte, 2017).

19. Evidence from coffee specific research is limited but is in line with findings from other agricultural sectors. One study suggests that for a sample of coffee-producing households in Colombia and Ecuador male-headed households own 20% more land than female-headed households (Avila and Useche, 2016).

3.2. Labour

20. Agriculture, especially in the context of smallholder production systems, is labour intensive. The availability of labour in individual households depends on the size and composition of the household (number of family members in working age and gender) and the ability to hire labour. Research has shown that female-headed households are disadvantaged in both areas (FAO 2011).

21. Households run by women are on average smaller but contain a higher number of dependents. Avila and Useche (2016) found that female-headed coffee-producing households in Ecuador are 13% smaller on average than male-headed households, resulting in lower labour availability. Furthermore, female household heads are often subject to the double burden of domestic tasks and farming activities. This also partially explains the lower use of

labour in plots managed by women in male-lead households (Udry et al. 1995). In accessing labour markets female farmers can be held back by social norms. For example, Hill and Vigneri (2014) found for cocoa growers in Ghana that female growers face constraints in accessing labour through gendered labour exchange groups, which is problematic especially for physically demanding farm work. In other cases, female farmers may receive help from men in the community but only once men completed work on their own plots (FAO, 2011).

3.3. Education

22. The level of education, considered as part of human capital endowment, is a main determinant of the productive capacity of households (WDR, 2012; FAO, 2011). There is a strong correlation between the average level of education of working-age adults in rural households and agricultural productivity. Differences in access to education and educational attainment can be observed between men and women. For example, in a sample of 15 countries analysed in a study published by the FAO (2011), a significant difference in years of schooling and literacy rates between male and female household heads was found in almost every country. The sample includes coffee-producing countries such as Bolivia, Ecuador, Guatemala, Nicaragua, Indonesia, Nepal, Vietnam, Ghana, Malawi and Nigeria. The notable exception where no gender gap in education was found is Panama. Overall, research has shown that over time there has been a trend towards closing the gap but significant differences in progress between regions remain. Lower levels of education are often the result of a bias against girls in education.

23. In their study of Ugandan coffee-producing households, Meemken, Veetil and Qaim (2016) provide evidence on differences in human capital of male primary decision makers, female primary decision makers (i.e. female household heads) and female secondary decision makers. They find that both female household heads and women in male-headed households have fewer years of formal educa.9 ()[(he)9fn-1 (d) l-4 (o)w (us)6oflp makeau.

holding male-headed households received an extension visit compared to only 18% of female-headed households (World Bank and IFPRI, 2010). The same study showed a similar pattern in Ethiopia with 28% of male-headed households having access to extension services, whereas only 20% of female-headed households were visited by an extension worker.

26. The study identifies a number of reasons for women's lower access to information on farming techniques. For example, a male bias appears to exist in service provision based on the belief that men are decision makers and female farmers only marginal producers. Larger farms, which tend to be operated by men, are more likely to be targeted by extension agents due to economies of scale and higher efficiency in service provision. Furthermore, time constraints related to the double burden of household tasks and farm work, as well as social

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34. It has been established that there can be a negative correlation between agricultural commercialization and women's agency. On the one hand, the emergence of high-value agricultural markets provides subsistence farmers with opportunities to generate income, decreasing poverty levels. On the other hand, not everyone can benefit from this development, with female-headed households being particularly disadvantaged. As entry barriers to access export crop markets are high, there is a risk that women who have limited resources, as shown above, are being marginalized (Maertens and Swinnen, 2012; Quisumbing et al., 2015).

35. Indeed, male-headed households are more likely than female-headed households to grow export crops such as coffee. Nevertheless, women contribute significantly to the production of export crops. An analysis of intra-household labour allocation suggests that female household members devote disproportionately more time to growing coffee than men, who focus on less time consuming crop storage and marketing activities. Due to their involvement in selling the coffee, male household heads usually also control the revenues from coffee production (Bolwig, 2012).

36. These findings are confirmed by other studies. For example, in Uganda, there is a stark contrast in involvement in coffee production between female household heads, who manage the coffee production as part of an agricultural enterprise, and female secondary decision makers in male-headed households. Only a third of the female secondary decision makers claimed to be responsible for coffee production, compared to more than 90% of male household heads (Meemken, Veetil and Qaim, 2017).

37. Similar patterns were identified by Avila and Useche (2016) in Colombia, where women in male-headed households participate less in the decision-making process in coffee production than in female-headed households. For Ecuador, they also find that women have less of a say in production decisions, albeit the differences are not statistically significant.

38. In summary, the above analysis of the determinants of the gender productivity gap has identified factors ranging from human capital to economic opportunities, and agency. The comparison of findings in the literature on the agricultural sector, as a whole, with studies in the coffee sector has shown that constraints in accessing resources faced by coffee households are similar to those of other cash crop-producing households in rural areas. The gender gap in human capital endowment and access to resources could be confirmed in the areas of education, access to labour and extension services as well as agency. The empirical evidence on gender differentials in the access to credit and input use in the coffee sector remains limited and less conclusive, suggesting that more research is required.

39. The following section will provide some examples of policies and interventions that may benefit female coffee producers by increasing their access to resources and rights with a view of enabling them to participate in commercial and export-orientated agriculture.

4. CLOSING THE GENDER GAP

40. Closing the gender gap in agricultural value chains would generate a wide array of social and economic benefits. First, the empowerment of female coffee farmers as well as female household members in coffee-producing households would contribute to achieving the Sustainable Development Goal of gender equality as well as other goals set out in the 2030 Agenda for Sustainable Development.

41. Second, levelling the playing field in access to resources ranging from human capital to production factors would enable female farmers to produce more efficiently, resulting in higher output. Increased productivity rates can translate into higher farm income and improved household welfare. Higher farm income and more female power over household decisions is associated with wider benefits, such as better nutritional and health status of children as well as higher shares of income spent on education (Doss, 2013; Malapit and Quisumbing, 2015).

42. The FAO estimates that closing the gender gap in access to resources in low-income countries would boost global agricultural output by 2.5–4% (FAO, 2011). Gains in agricultural productivity, i.e. higher yields and better quality output, will be key to meet future demand for coffee, both internationally and domestically, as estimated consumption will increase by 40 to 50 million bags by the year 2030, if the current growth trend continues.

43. There is a role for both the public and the private sector in closing the gender gap in agricultural production. Within the realm of public policies, a distinction can be made between policies that are specific to the agricultural (or even coffee) sector and those which are more universal. For example, it has been shown that access to primary education is positively correlated with the productive capacity of households. Hence, public policies aiming at reducing the male bias in education and increasing female school enrollment in rural areas will benefit coffee-producing households. Among the policies that are more specific to the agricultural sector are those concerned with property and land use rights as well as agricultural extension services. Interventions aiming at increasing financial literacy among farmers are often implemented by non-governmental organizations (NGOs). The coffee industry on the other hand has been successful in implementing elevated private standards and gendered supply chain policies, driven by increased consumer awareness in social aspects of coffee farming.

4.1. Land certification and property rights

44. Secure land tenure is crucial in promoting equitable and sustainable development (Melesse, Dabissa and Bulte, 2017). The gap in access to land between male and female farmers can be closed by eliminating discrimination under the law, while recognizing the importance and power of customary land rights, educating officials and evaluating them on gender targets, educating women regarding land rights, and adjusting bureaucratic procedures related to land registration (FAO, 2011).

45. Implementing joint ownership of land by husband and wives has proven successful in empowering women in male-headed households. Securing control over household assets improves the bargaining position of women vis-à-vis male household heads, ensuring that economic choices are made collectively. An analysis of the joint land certification programme suggests that issuance of joint ownership titles had a positive impact on women's empowerment and agency across a range of indicators (Melesse, Dabissa and Bulte, 2017).

4.2. Extension

46. A gender-sensitive approach to agricultural extension and farmer schools can address
46.

49. Often, development organizations (e.g. International Organizations (IOs) and NGOs) in partnership with development banks fill the gap by providing training to strengthen the internal financial management of smallholder organizations. For example, a project carried out in the coffee sectors of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Mexico organized 239 workshops reaching almost 6,000 participants, 31% of them women. An evaluation has shown that the project was successful in increasing financial literacy of farmer organization members, and in increasing lenders' awareness for opportunities in relation to financing small farmers (ICO and World Bank, 2015).

4.4. Private sustainability standards

50. Private standards and certification schemes can have a positive effect on gender equality. Promoting sustainability, standards such as UTZ or Fairtrade are concerned with a range of issues related to farming practices, environmental, and social issues. The latter comprise labour conditions and wider development issues, including gender equality. Standards may require farmer organizations to comply with non-discrimination policies and organize compulsory gender-awareness workshops and agricultural trainings that are tailored to female farmers (Meemken and Qaim, 2018).

51. In terms of the impact at household level, certification schemes with a gender component can mitigate some of the negative consequences stemming from agricultural commercialization. For example, women in certified households have significantly more control of coffee production and income derived than women in non-certified households (Chiputwa and Qaim, 2016).

52. On the other hand, building awareness through mandatory gender workshops can gradually change social norms and established perceptions about the role of women in rural societies. Hence, private initiatives can complement gendered public policies and it is not surprising that women show positive attitudes towards certification schemes (Meemken, Veettil and Qaim, 2017).

53. However, time constraints resulting from the double burden of household and farm work can restrict women's active participation in producer groups. Hence, the governance and policies of the groups should be structured in a way to facilitate full organizational participation of women (Lyon, Muterbaugh, and Worthen, 2017).

4.5. Information and Communications Technology and technical innovation

54. Increasing use of mobile phones in rural areas of low-income countries can have a positive impact on broader social development, including gender equality. Research shows that the spread of mobile phones and communication technology has a profound impact on rural communities in low income countries, especially in Sub-Saharan Africa. A clear link exists between the use of mobile phones and farm-level economic indicators, such as agricultural input and output prices, yields and profits. The use of mobile phones enables farmers to compare prices, improving transparency in remote agricultural markets. Farmers can receive agronomic advice and timely warnings about spreading pests and plant diseases, informing production decisions (Aker, 2010; Aker and Ksoll, 2016).

55. A recently published article by Sekabira and Qaim (2017) suggests that mobile phone use improves women's agency. The authors found that, for a sample of Ugandan coffee farmers, in households where at least one female adult uses a mobile phone, the proportion of total household assets co-owned by women is 21% higher than in households where mobile phones are used exclusively by men. Besides higher female participation and more influence in household decisions, nutritional benefits for dependents in the household are associated with gendered mobile phone use, as suggested by indicators focusing on food security and dietary quality.

4.6. Complementarities

56. The reasons for the existing gender gap in the coffee sector are various. Potential responses to close the gender gap range from public policies to NGO-driven interventions and gendered supply chain policies of the coffee industry. Research has shown that female growers' productivity is hampered by various factors simultaneously. Alleviating only one constraint at a time may lead to suboptimal outcomes if other constraints remain binding. For example, yield increases from improved access to inputs could be low if the farmers lack the skill and training to optimally apply fertilizers and pesticides. Only if both use of inputs and access to extension is facilitated, yield levels and hence economic outcomes may change. Hence, policies and programmes simultaneously addressing multiple existing constraints can show strong complementarities (FAO 2011). Coordination of efforts made by the diverse actors in the coffee sector could increase the effectiveness of specific interventions.

5. CONCLUSION AND NEXT STEPS

57. This study provides a conceptual framework to identify the determinants of the gender productivity gap in coffee farming and reviews public policy responses and private

initiatives aiming at women empowerment and gender equality. The focus of this study is the farm level but the contributions of women throughout the coffee value chain is acknowledged(s)JJ (c)4 (h)-4.459 T017 4.814f96 -0 AMCID 0 BDC 20.001 Tc -0.305 Tw 13.6 0 T0d(a)-6 ((58. 0 Tw

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TABLE 1: FEMALE PARTICIPATION IN AGRICULTURE

Share of labour force	Share of HH-heads/land-owners	Region /Country	Source
Agricultural sector			
43%	n/a	Global	
20%	21%	Latin America	FAO, 2011
50%	17%	SE-Asia / S-Asia	
50%	26%	Sub-Saharan Africa	
Coffee sector			
70%	20%	Global*	ICT, 2008
n/a	23%	Uganda	Meemken and Qaim, 2018
n/a	35**	Mexico & Central America	Lyon et al., 2010
n/a	29-34***	Kenya	Dijkdrenth, 2015

* Study comprises 15 countries

** Share of Fairtrade-organic farm operators

*** Share of female coffee-cooperative members