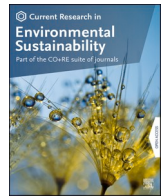




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# Women's dual centrality in food security solutions: The need for a stronger gender lens in food systems' transformation

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## ABSTRACT

Food insecurity remains a critical issue worldwide. The current COVID-19 crisis has exposed how vulnerable the global food systems are and that urgent measures need to be taken, especially in the Global South. Despite increased recognition that women are among the most food insecure yet major contributors to local and global food security over the recent years, there has not been a systemic change needed in the current food security paradigm. This paper argues that, in developing countries, a stronger gender lens ought to be at the center to the food systems' debate as women are critical to agriculture and food systems' sustainability and resilience. Women are central to food systems, both as primary food producers and as primary caretakers of the household. Three key recommendations are put forward in this article for establishing inclusive, sustainable and resilient food systems: One, ensuring a stronger gender lens in food systems and food security paradigms; by working with accurate sex-disaggregated data and beyond on individuals' level. Two, promoting and supporting alternative strategies to agriculture as a means of livelihood for women. Three, ensuring that women are central in food security solutions by not only listening to their concerns and needs, but also building on their resilience, knowledge, and practices.

## 1. Introduction

Despite decades of development efforts by the global community to combat the problem of food and nutrition insecurity in the world, hunger and undernourishment have persisted, especially in the developing world. In fact, it is reported that the number of people suffering from undernourishment has been on the rise since 2015 (UN, 2021a; FAO, 2020). Nevertheless, policymakers and practitioners have been relentless in seeking solutions to this persistent and critical problem widely recognized as a major cause of suffering for millions of people worldwide. It is now apparent which people or groups of people in the world are most affected by food insecurity. Smallholder farmers in developing countries are known to be among the most food insecure populations (Ogutu and Qaim, 2019; FAO, 2019a; Fanzo, 2018; Sibhatu and Qaim, 2017). Within smallholder groups, women, youth and indigenous people stand out as particularly more affected. Hence, the call in the recent State of the Food and Nutrition Security in the World report for their inclusion in the future food systems' discussions and actions (FAO, 2021). In this paper, we focus on the need for integration of women's roles and needs in the development of policy and practice

involving the future food systems.

For decades, gender equality and inclusion have been central to discussions and points of action in development policy and practice. As pointed out by the UN Women (UN-Women, 2021), achieving all the 17 Sustainable Development Goals (SDGs) necessitates addressing issues of gender inequality and promoting women's empowerment. Recently, organizations have increasingly called for a recognition of the importance of gender equality and women's empowerment in improving food systems (WFP, 2021a; Njuki et al., 2021; GAIN, 2019; CARE, 2021). Despite widespread agreement on the importance of gender equality in food systems, there continues to be a lack of a strong gender lens in efforts that seek to improve local food systems. Based on CARE (CARE, 2020a), 46% of 73 global reports offering potential solutions to hunger during the COVID-19 pandemic '[...] do not refer to women and girls at all, and only five (under 7%) [...] propose concrete actions to resolve the gender inequalities crippling food systems'. Many responses to COVID-19, both in policy and analysis, fail to consider how gender interacts with implemented measures and their implications for food security in Africa (Doss et al., 2020). Furthermore, it has been argued that gender equality is central to food systems transformation and that it

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must be a key subject in the upcoming food systems dialogues, such as UN food systems summits, implying an existing gap in the past food systems discourse (Njuki et al., 2021; UN, 2021b; IFPRI, 2021).

In the present issue, we emphasize that women are central to food systems in developing countries, thus gender equality and women's empowerment should be a major consideration in improving food systems as a food security solution. According to FAO (FAO, 2018), 'food systems encompass the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products [...]'. In the recent past, food systems have gained increased attention among policymakers and researchers vis-à-vis their implications on patterns of consumptions, and social and environmental welfare (Béné et al., 2019; Foran et al., 2014; Brinkley, 2013; Ingram, 2011; Ericksen, 2008; Fanzo et al., 2021). It is evident that besides not delivering on adequate and healthy food, the current systems negatively influence environmental outcomes, such as depletion of production resources and unhealthy food habits contributing to lifestyle diseases (Garnett and Godfray, 2012). Accordingly, food systems are now perceived as the primary basis for analyzing and understanding the state of global food and nutrition security (Fanzo et al., 2021; Carducci et al., 2021; Barrett, 2020; HLPE, 2017; GP, 2016).

It has been widely acknowledged that food systems have failed in their objective – delivering food security (GP, 2016; Haddad et al., 2016; de Schutter, 2014; Gómez et al., 2013). Their failure has been particularly pronounced during the ongoing COVID-19 pandemic, estimated to have led to a rise in acute food insecurity in 2020–2021. While global food systems have been resilient enough to ensure food has remained available during the pandemic, millions more have been affected by food insecurity, being unable to access sufficient and nutritious food (Bank, 2021). 'The consensus is that something needs to be done' (Béné et al., 2019). Although important, this consensus and the focus of the debates on enhancing the resilience and sustainability of food systems has barely integrated a gender lens. The primary areas of research and policy interest have been on issues of productivity, the environmental implications of food systems, and consumption behaviors (West et al., 2014; Challinor et al., 2014; Foley et al., 2011).

In the next section we explore what a sustainable and resilient food system entails. Next we zoom in on the dual role women play in food systems, both as primary food producers and as primary caretakers of the household. Following, we explore the gender barriers women face in performing these roles and how this exacerbates food insecurity, not only at the individual level but also at the global food system level. Then we look at the increased risks induced by crises and what can be learned from the 2008 food price spike, climate change and COVID-19 pandemic. This paper will conclude with some general reflections on the current food security paradigm and three key recommendations for inclusive future food systems.

## 2. A sustainable and resilient food system

The state of food and nutrition security of any group is determined by the condition (i.e., the sustainability and resiliency) of the food system linked to the group (Ericksen, 2008). Given that millions of people are food insecure today, it is evident that numerous food systems are in poor condition (Branca et al., 2020). While much of the systems bottlenecks are localized – with respect to a lack of or limited resources and support available, research suggests that some of the causes of the local food systems insufficiencies emerge from the nature of the global agri-food systems. Indeed, as indicated by Guinn and Hamrick (2015) presently, '[...] national food systems are deeply interlinked through patterns of trade and investment that are often referred to as global value chains (GVCs)'. In the value chain arrangements, they add, the key players are '[...] powerful lead firms – large food processing firms, trading companies, and national and multinational retail and restaurant chains – setting the terms by which farmers may participate in the food system'.

This leads to agri-food practices, policies and interventions that promote the corporate profit-led interests, which rarely align with local needs for inclusive food systems i.e., those that ensure everyone has secure access to preferred, safe and nutritious food. For example, due to unequal food systems, it is maintained that although there is enough food being produced in the world, not everyone has access to this food (Schipanski et al., 2016). Among the primary reasons for this critical disparity is growing (global and local) social and economic inequality (Dixon et al., 2007). Elsewhere, recent studies on inclusive agribusiness, the currently popular and dominant approach for improving smallholder livelihoods, food and nutrition security therein, show that not every farmer gets to participate, while those that do and manage to obtain better income it does not necessarily lead to improved food and nutrition security (Wangu et al., 2020; Wangu et al., 2021; Gebru et al., 2019). On a different note, agriculture is associated with adverse environmental implications that undermine food production (Steffen et al., 2015). This has a negative impact on the food systems. Conversely, a poorly functioning food system can equally have a negative impact on agriculture and the environment. Overall, a food system that is not equitable and that has a negative impact on the environment cannot be considered sustainable.

The need for resilient food systems cannot be overemphasized. Because of growing population, increased competition for agricultural resources from non-food production, such as in the case of biofuel crops, impacts of agricultural production, socio-economic inequalities, changing human diets, among others, food systems have become increasingly vulnerable and are under immense pressure to ensure people everywhere are able to meet their food needs. As Schipanski et al. (2016) point out, individuals and communities can simultaneously experience multiple shocks and stressors operating at different scales. Resilience research has argued for increased capacity for all actors to self-organize and adapt to disturbances, as well as promoting equity and social justice (Schipanski et al., 2016; Ensor et al., 2015; Chappell and LaValle, 2011; Carpenter et al., 2001). In their argument for improving food systems and food and nutrition security accordingly, Schipanski et al. (2016) emphasize on the need to target the vulnerable and marginalized population in terms of enhancing their capital and productive resources. This necessitates having a deep understanding of the key constraints they face as well as the individuals' role in ensuring their food and nutrition security. Hence, our case for a stronger gender lens, as specifically women are vulnerable and marginalized in both delivering and acquiring adequate and healthy food. Therefore, in the next section women's duality aspect in food systems and related barriers are being explored. This includes emphasizing the need to acknowledge women's role in food availability and access, as well as in consumption.

## 3. Understanding gender duality in food systems and food security outcomes

The UN Women (UN, 2012) estimates that women and girls make up 60% of the population of chronically hungry people in the world. This number is even higher in low- and middle-income countries where women and girls are highly marginalized. 'Women are vulnerable on all dimensions of food security: availability, access, utilization and stability', according to Oxfam (2019). This alone calls for applying a strong gender lens in food system discourses. Additionally, women form a core part of the solution in ending hunger and in ensuring food security for all (CARE, 2020b).

Indeed, women play a crucial role in food security, both as primary producers of food and as primary caretakers of the household. Women are important contributors to different activities that support agricultural development (UNDP, 2016; Karl, 2009). Based on data from the World Bank, women in developing countries produce 60–80% of the household food (Palacios-Lopez et al., 2017). Women's role in food production varies from direct producers on their own account, wage-workers, to unpaid labour on family farms (UNDP, 2016; Raney et al.,

2011; Kotzé, 2003). In developing countries, for instance, they account for more than 43% of the labour force (UN, 2012), much of which they are poorly or not at all compensated for. Evidently, '[...] if these women had the same access to productive resources as men, they could increase yields on their farms by 20 to 30 percent, raising total agricultural output in these countries by 2.5 to 4 percent' (ibid). Presently, it is estimated that only less than 13% of the agricultural land globally is owned by women because of discriminatory laws and practices (UN, 2020). Consequently, for their lack of tenure security, women are often excluded from farming opportunities, such as modern contract farming arrangement (FAO, 2011). Men also play an important role in food production, but their role is usually more focused on the production of cash crops. The production of food crops, which often has a more direct influence on local households food security level, is usually attended to and managed by women (UNDP, 2016; García, 2013).

### 3.1. Women's central role in food production and related barriers

Women all over the world face major barriers to adequately meet their livelihoods. But nowhere is this problem more pronounced than in rural agricultural areas of developing countries. Besides land ownership and user rights constraints, women are likely to struggle more with accessing input, technology and innovation, markets and services (FAO, 2011). Hence, widespread ongoing development interventions in an attempt to tackle these issues. Notwithstanding the current efforts, significant work in these areas remains. The Millennium Development Goal (MDG) 3: *Promote Gender Equality and Empower Women*, which defined efforts to tackle gender inequality in the 2000s and early part of the last decade are considered to have made little progress. Furthermore, literature indicates that this MDG agenda narrowly focused on access to education, in numerical terms, leaving out critical issues such as economic discrimination, gender-based violence, reproductive health, and access to essential resources, such as affordable water (Fehling et al., 2013; Mohindra and Nikiéma, 2010; Langford, 2010; Eyben, 2006; Subrahmanian, 2005; Kabeer, 2005; Attaran, 2005). Presently, notable progress has been made through the fifth goal of the Sustainable Development Goals (SDGs). Nevertheless, gender inequality challenges persist even in the advanced economies (UN, 2021c; UN, 2019; IISD, 2019). Among others, discriminatory laws and social norms, political underrepresentation, gender-based physical and sexual violence remain visible. Specific barriers that women continue to face with respect to local food systems and food security needs are discussed below.

Entrenched gender norms limit women's opportunities in different ways in the agricultural sphere. Gender norms often designate men as heads of the household, which means men having control over household decision-making. This includes decision-making regarding resources, including household income and expenditure (Hillenbrand and Miruka, 2019). Another common gender barrier women face in rural areas are mobility restrictions, which makes women more bound to their home area (Diuro et al., 2018). Also, in the economic system women face inherent gender biases, which limits their access to credit. Especially smallholder female farmers face difficulties in getting loans, because of social norms and lack of collateral (FAO, 2019b). This in turn influences women farmers opportunities to buy productive assets that increase crop yield.

Food insecurity, due to a lack of or limited access to production resources and other livelihood opportunities in rural developing countries, is not unique to women, thus it ought to be understood in a broader context. While women as individuals in rural smallholder communities might face most constraints, the general populations tend to face similar challenges. As pointed out in the introduction, smallholder populations generally are among the most affected by food insecurity and poverty due to multiple constraints in both resources and opportunities. This problem is linked to both local and global inequalities. With respect to local inequality, it must be understood that different households, and by extension women from different households, face different levels of

constraints in economic resources and opportunities based on their socio-economic characteristics. Indeed, studies have shown that in the same community there is a variation in smallholder households' socio-economic attributes with some households being relatively resource rich whilst others are significantly deprived. These conditions dictate who is able to participate and benefit from available socio-economic opportunities (Wangu et al., 2020; Wangu et al., 2021; Johnson et al., 2016). Consequently, a variation in socio-economic outcomes, such as meeting their household food security, is to be expected.

A secure source of livelihood is central to individual and household food and nutrition security; thus, it is integral to the local food systems. Furthermore, as key players in food production and consumption, women's effective participation in agricultural activities is fundamental to the local food systems. As such, the current gender disparity in access to productive resources, markets and services in agriculture becomes a challenge to the sustainability and resilience of the food systems through which food security needs are met. Addressing gender inequality, particularly women's inability to access and control land and productive resources, is seen as a significant step towards enhancing food access and availability at the community and the household level. According to the EU, 'women's control over land extends their capabilities, expands their negotiating power, and enhances their ability to address vulnerability' (EC, 2021).

### 3.2. Women's central role in household food consumptions and related barriers

Gender differences shape food dynamics not only at the global and community level, but also at household level. Women around the world perform a disproportionate amount of reproductive work in addition to their productive work, almost two and a half times as much as men (OECD, 2014). This includes taking care of children and family members, cleaning, food gathering, collection of water and firewood, preparation of food, and feeding the family. UN-Women (UN, 2012) reports that women in sub-Saharan Africa spend up to 40 billion hours annually fetching water, which has a significant effect on their employment opportunities. It comes as no surprise it is reported that health conditions and the general wellbeing of children largely depend on the mother (Halim et al., 2011; Quisumbing et al., 1996). This already starts during women's pregnancy, as women's nutrition status during pregnancy and breastfeeding are critical factors in the nourishment and health of children. Besides, women, relative to men, tend to invest a higher proportion of their income on food, health and education of their family (Quisumbing et al., 1996). According to UN-Women (UN, 2012), 'when more income is put into the hands of women, child nutrition, health and education improves'. It is estimated that at least 90% of women's income is reinvested back to their households and families (FAO, 2016; CGI, 2021). Paradoxically, even though women are the main caretakers and food providers for their households, they 'too often eat last and least' (CARE, 2020a).

Nutrition knowledge is an important element of an effective food system, as a contributor to consumption of healthy diets. Knowledge about healthy diets is central to addressing issues of malnutrition that are associated with various health problems, including overweight, obesity and diet-related non-communicable diseases. Given the above-mentioned barriers that women face with respect to achieving food security, it is reasonable to assume that their access to nutrition knowledge and information is equally limited. Indeed, it is reported that the majority of the world's illiterate people (75%) are women (UN, 2012). Limited nutrition knowledge contributes to food insecurity among women. Additionally, various studies affirm that there is a strong and positive relationship between food insecurity and violence against women (Diamond-Smith et al., 2019; Hatcher et al., 2019; Ricks et al., 2016). Violence against women and girls has significant negative effects on their ability to participate in social and economic activities as well as discharging their duties relating to household food consumption. The



World Bank (2019) reports that up to 35% of women in the world 'have experienced 'either physical and/or sexual intimate partner violence or non-partner sexual violence'.

According to CFS (CFS, 2021), as a step towards sustainable food systems, healthy diets should be promoted via 'supporting people to improve their knowledge, awareness, education, and the quality of information available, motivations, skills and sustainable practices empowering key actors'. In the context of food consumption, this could entail putting in place mechanisms that reduce the time women and girls spend on accessing water, firewood, preparing food, among other unpaid care work. Nutrition knowledge and efforts to prevent/end gender based violence must be central in food security interventions and campaigns.

#### 4. A magnifying glass: how crisis hits women the hardest

The gender barriers women face imply that compared with their counterparts, they are likely to be more affected during crises. Indeed, their lack of or limited access to and control over productive resources, lack of capital and credit, the constraints they face in terms of travelling, and their limited opportunities to move into other means of livelihood puts them in an extremely vulnerable position when crises hit. Furthermore, crises often pile extra burden on women in regard to their reproductive tasks (CARE, 2020a; UNDP, 2016). All these challenges have been evident in previous and ongoing crises: past food crises, the ongoing climate change crisis and the current COVID-19 pandemic.

In 2007/08, the world experienced a major food crisis which saw a drastic rise in global food prices. It is reported that women were among the hardest hit by the crisis (Botreau and Cohen, 2020). Accordingly, in the year following the crisis (2009), 'women and girls accounted for 60% of chronically hungry people around the world' (Oxfam, 2019). The dramatic rise in food prices affected women both as food producers by increasing the cost of production which in turn reduced food availability, and as consumers and home food managers - by weakening consumer purchasing power (Oxfam, 2019; Agarwal, 2011). Literature indicates that rural households spend a higher proportion of their income on food, they lack credit and savings, and they don't have social protection systems to fall back on (Compton et al., 2010). Furthermore, it has been found that even in the context where smallholders (women therein) experience an increase in income, due to impoverished positions, a better food intake is not guaranteed given competing non-food needs (Wangu et al., 2020; Wangu et al., 2021; van Westen et al., 2019).

Climate change is perhaps the direst long-term crisis the world is facing today. It is widely known that its effects are majorly felt by the poor communities. Given the extra burdens rural women experience due to gender barriers, it is conceivable that they are among the hardest hit by this crisis. The agricultural sector and by extension food systems, are highly climate-sensitive, hence most threatened by the impact of climate change, particularly due to the increase in the incidences of climate variability (Mendelsohn, 2008; Schmidhuber and Tubiello, 2007). Climate change has a direct effect on agricultural yields which in turn impacts food prices, reliability of food delivery, quality and safety (Nelson et al., 2010; Hertel et al., 2010; Nelson et al., 2009; Lobell and Field, 2007). Also, the effect of climate change on water availability and access leads to disastrous consequences (Weiss, 2012; Hanjra and Qureshi, 2010; Piao et al., 2010). Hence, placing additional burden to the food system given water is an important part of food utilization. According to Vermeulen et al. (2012), 'preexisting and emerging social and economic conditions' influences how climate change impacts food systems. These include the discriminatory socio-economic situation that women are subjected to due to their gender. They not only exacerbate how women are impacted by climate change, but also affect their ability to adapt and mitigate related effects.

Today, the world is struggling with a sudden crisis: the COVID-19 pandemic, whose effects have been felt in every country - developed and developing. The pandemic is known to have '[...] resulted in

immediate, serious, and worldwide human health issues' (Stephens et al., 2020). In addition, it is widely reported to be having major implications on agriculture, food systems and global food security (Carducci et al., 2021; Barrett, 2020; Stephens et al., 2020; Galanakis, 2020; Bakalis et al., 2020; Aday and Aday, 2020). The World Bank (2021) informs that the pandemic has led to a dramatic rise in the number of those that are acutely food insecure in 2020–2021. An estimated 272 million people are already or are at risk of becoming acute food-insecure (WFP, 2021b). Based on the State of the World Food and Nutrition Security Report 2021, 'the prevalence of undernourishment increased from 8.4 to around 9.9 percent in just one year' (FAO, 2021). Among the COVID-19 pandemic's effects that may have led to these challenges are '[...] movement restrictions of workers, changes in demand of consumers, closure of food production facilities, restricted food trade policies, and financial pressures in the food supply chain' (Aday and Aday, 2020). In the low- and middle-income countries, the pandemic has caused major disruption in the domestic supply chains (Carducci et al., 2021). Consequently, this has had a profound impact on food security of individuals, especially women, who largely depend on agri-food supply chains for their livelihoods (Montalvo and van de Velde, 2020; Headey and Ruel, 2020). Based on CARE (2020c), the pandemic induced global food crisis has disproportionately affected women and girls. Among others, they have experienced many challenges, including increased unpaid labour, incidences of gender-based restrictions i.e. reduced mobility, higher rates of gender-based violence, and unintended pregnancies. In certain instances, it has been warned that economic shocks and related food insecurity will result in girls being pulled out of schools to help at home or married off early to relieve the family of another child to feed (FAO, 2020). Some research have called for a feminist response to COVID-19 impact (food insecurity therein) on women, given the obvious effects of the existing gendered inequalities during a crisis (Jessica and Priscilla, 2021; Oxfam, 2021).

#### 5. Reflections on the current food security paradigm and the inclusive way forward

As the world population keeps growing, sustainable and resilient food systems will become a dominant theme in future debates and policy on food security. Women's dual involvement in local food security in the Global South, both as primary food producers and as primary caretakers of the household, is undeniable. Unfortunately, the increased recognition of women's contribution to food security in recent years has not led to the systemic change needed in the current food security paradigm, specifically in the food systems discourse. While a focus on productivity, the environmental implications and consumption behaviors seems to continue to dominate the food system paradigm, a structural embedding of a gender lens remains underexplored. There has been an increase in attention to women's involvement in food security debates, but based on Clement et al. (2019) this has not led to 'actual investments dedicated to women's empowerment and resulting outcomes on gender equality and enhanced food security'.

It is time to structurally embed a strong gender lens in food systems to ensure food security solutions benefit all, especially in terms of access and utilization. There is a need to move beyond an instrumental narrative in food security debates, to break down the current status quo that everyone in low-income populations is impacted in the same way by food insecurity and to tailor food security solutions towards those most in need by building on their rich and resilient knowledge and practices. Yes, as literature affirms, though primarily involved in the food production and consumption process, women are among those most affected by the problems resulting from food insecurity. Hence, it is time to also view them as the key solution to challenge food insecurity.

Addressing gender barriers and vulnerability that women face in their livelihoods pursuit is critical to establishing sustainable and resilient food systems, and their food security accordingly. The present paper put forward three important recommendations towards this endeavor.

One, ensuring there is a strong gender lens in the food systems and food security paradigm by working with accurate sex-disaggregated data on individual level, and if possible disaggregated by other socio-economic characteristics such as age, race, class and geographical location. As indicated by Broussard (2019), while there is a substantial amount of research on the different roles women play in food security nowadays, 'relatively little attention has been paid to their own food security situation'. Many programme-based monitoring and evaluation approaches, as well as scientific research, don't go beyond collecting household data, if they even target households as a data-collection point. This is problematic as men remain heads of the household in many rural areas. Furthermore, those that make some effort remain largely instrumental - where a gender lens in projects and monitoring and evaluation is limited to numbers instead of context specifics. Women have a higher probability of being food insecure relative to men, therefore it is important to dive deeper into the factors that influence women's realities on an individual level, from both the perspectives of women being more food insecure and women being the primary local food producers.

The second suggestion towards sustainable and resilient food systems is promoting alternative strategies to agriculture as a means of livelihood for women. Numerous research informs that owing to limited production resources, especially dwindling land and water access, agriculture may not be adequate to support livelihoods for everyone in rural communities (Lowder et al., 2016; FAO, 2015; Jayne and Muyanga, 2012). Social protection programs such as direct cash transfer, food assistance and school meals programmes, have been increasingly promoted as alternative strategies to counter vulnerabilities among the most marginalized and poorest individuals (Slater, 2011; Barrientos, 2010; Soares et al., 2009). While such measures are critical in times of crisis, they may not be effective in maintaining sustainability and resilience of a food system. Indeed, as indicated by Guinn and Hamrick (Guinn and Hamrick, 2015), drawing from a case of South Africa, with its history of Apartheid and inequality in land and other resources, social protection measures may serve in meeting urgent needs. However, these types of measures usually do not address the structural social issues that affect food accessibility. Against this backdrop, in certain circumstances, it is crucial to move beyond social protection measures to improve the local capacity to earn a livelihood outside agriculture and to address structural causes of inequality. Alternative interventions are off-farm activities that can be pursued. Women should be encouraged and supported to find alternative livelihoods to farming or providing labour in the agricultural sector, such as venture in in a business or promote access to wage labour in other sectors. This aspect is hardly emphasized in development policy and practice. Some people can get their livelihood in the agricultural sector, but what is beyond?

Thirdly, it is highly fundamental to put women central in food security solutions. Even though women's role in food security is more seriously recognized in development policy and practice over the recent years, women's voice in food security solutions are often ignored or left out (Karl, 2009). Women's participation in decision making in food security solutions needs to be actively promoted and strengthened, beyond instrumental participation. Women's concerns and needs should not only be guiding the development of food security solutions, but also their resilient and sustainable knowledge and practices. Food security solutions should be based on women's dual experience in food security: their experience as food producers and their experience as food providers of the household. Furthermore, food security solutions need to take into account the variety of experiences and needs of women as they are not a homogenous group, which is still often presumed in small holders' development interventions (Wangu et al., 2021; Ros-Tonen et al., 2019; Grünenfelder and Schurr, 2015; Beyene et al., 2006).

Concluding, addressing food systems' bottlenecks for the delivery of food security in developing countries remains a challenge. The current COVID-19 crisis has exposed how vulnerable the global food systems are

and that urgent measures need to be taken (Aday and Aday, 2020; Headey and Ruel, 2020). This paper makes a convincing argument for the adoption of a strong gender lens in food systems. Given the central role women play in production and household food management, finding solutions to gender inequalities - the major hurdles to women and communities food insecurity - is highly critical. Furthermore, given women are among those being most food insecure, addressing the key factors central to this predicament will be a crucial part of achieving global food security. Addressing gender inequalities to food security necessitates an integrated approach that considers different local aspects that may hinder progress. It is critical to acknowledge that gender inequality in poor communities is embedded in other challenges affecting communities in general. This implies that gender inequalities should be analysed in the context of all other challenges the communities face, including issues of poverty, issues of health and well-being, problems of access to clean water and sanitation, decent work, and climate change crisis, and how they affect food security endeavors. Also, it is imperative that different people (and therein women), even in a seemingly homogenous community have different abilities, needs and capacities, thus solutions devised must reflect these diverse realities. Doing so will provide for more nuance in policy and practice towards resilient and sustainable food systems, and food secure communities accordingly.

## Declaration of Competing Interest

The authors declare no conflict of interest.

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