Food Security and Gender Equality[1]

Understanding the links between food security and gender equality is a complicated task that requires a global effort and commitment. The last global study that presented data on women, food, and gender equality was the FAO report from 2011. When looking into global major datasets on food security the information is not sex disaggregated. And when looking at datasets on gender, food indicators reinforce women's roles and their importance in reproduction, like anemia, rather than treating them as equal actors. Often, research sex-disaggregated data only when examining gender equality as a topic, but they fail to disaggregate when it comes to topics like food and agriculture.

Despite this reality, the Sustainable Development Goals platform from UN Women provides food security data (SDG #2 on Zero Hunger) that is also sex-disaggregated on 112 countries from 2014 to 2019. The UN Women portal also publishes data on income and production for farmers. In 2022, the FAO report on The State of Food Security and Nutrition in the World, shows how **women have experienced greater food insecurity (both moderate and severe) than men over time (from 2014-2021)**. Sadly, this gap keeps growing. As of 2021, there could be **150 million more women who are food insecure than men in the world**.[2] That is three times the population of Ukraine. The most conservative estimate of that number—one that looks only at the difference between men and women over the age of 15, shows that there are 126.3 million more women than men who are hungry.[Δ]

150

Million more women could be hungry than men in 2021.

Women play a crucial role in the production of food and in feeding their families and the world. Gender equality is highly connected to food security at a local, national, and global level. Simply put, as this research shows, **the more gender inequality there is in a country, the hungrier people are.** But the lack of collection and incorporation of sex-disaggregated data on global food security datasets leads global policy makers to overlook gender equality in food security solutions. Of 84 food policies in December of 2021, only 4% refer to women as leaders who can play a role in food security. 39% of those policies overlook women entirely.

Therefore, the purpose of this study is to explore the correlation between gender inequality values and food security scores worldwide combined with existing literature and rich studies on the links between gender and food in specific contexts to create powerful insights on the need that the world needs to produce, publish, and use more consistent data on gender equality and food.

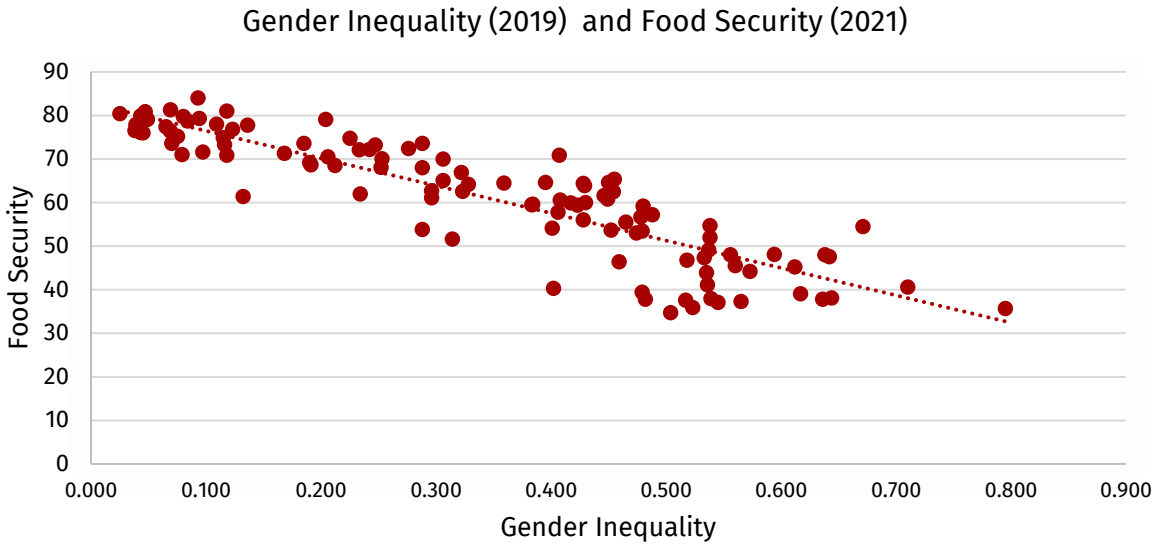
Methodology

The primary results in this paper showcase the results of a regression analysis in 109 countries that were present in both the Human Development Report's Gender Inequality Index from 2019 and the Food Security score from 2021 from The Economist. These were the two indexes that contained the most current data and the highest set of countries in common. The Gender Inequality values[i] are determined based on reproductive health,

[1] To improve the clarity and transparency of the data, methodology, and estimates in this report, this report was updated on August 16, 2022. Updates as of August 16 are marked with this symbol (Δ). Further, the team created a technical annex with a more complete methodology here.

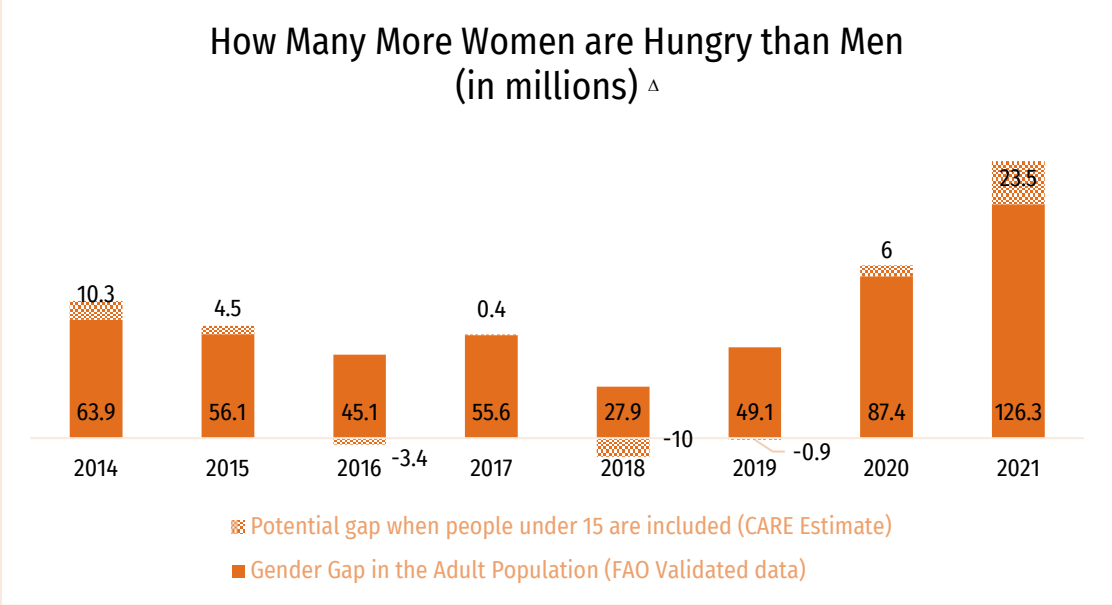
[2] This data is an estimate extrapolated from existing datasets—intending to cover current gaps in the global data. The formal FAO estimate for this number is 126.3 million—a number which only covers the sex-disaggregated experiences in adult portion of the population. It is illustrative and has uncertainty built into the methodology. For further details, please see the technical annex here (and at the end of this report). [Δ] Data calculated using the statistics from UN Women Sustainable Development Goals dataset (2014-2020) and the FAO SOFI report 2022 (data from 2021) on gender gaps in food security; and The World Bank's data on global populations

empowerment, and labor market participation. These values range from 0, where men and women have equality, to 1, where one gender is highly unequal. In contrast, the Food Security scores[ii] are determined by affordability, availability, quality and safety, and natural resources and resilience. These scores range from 1 to 100, with 100 representing the highest possible food security.



Key Findings

The graph above demonstrates the high correlation between gender equality and food security. Because the index measures gender ***inequality***, a higher score on the index demonstrates less equality. In its most basic terms, as gender inequality rises in these 109 countries, food security drops. The graph shows a negative correlation, meaning that **as one variable increases (gender inequality) the other variable decreases (food security)**, with a correlation coefficient of -0.89 showing a fairly strong negative relationship between the two variables at stake. An adjusted r-squared value of 0.78 shows that 78% of the variability observed in the target variable is explained by the regression model. To triangulate this data, the team ran the same analysis with three more data sets and showed similar results, reinforcing the conclusion **at a global scale that gender equality and food security are highly linked.**



Overall, many studies in the literature review indicate that gender equality has a strong relationship not only on increasing the capacity of rural households to acquire coping mechanisms, but also to reduce poverty and food insecurity. A sample of this evidence includes:

Women's participation and the household:

- Studies in **Malawi**, **Tanzania**, and **Nicaragua** found that **gender norms defining women's participation in income generation activities impact food security.**
- **41 countries recognize men as the head of the household**, limiting women's participation in income activities and spending decisions.
- A study in **Senegal** showed that households **where women were employed had a 11.3% lower probability of food insecurity.** Household where only men were employed showed no benefits for food security.
- The intensity of women's workload is increasing, but without a corresponding increase on income, and sometimes that workload comes with no income at all.
- Worldwide, **women do 75% of the unpaid work** such as care and domestic tasks, and **women in rural areas spend around 14 hours a day on unpaid care work.**
- A cluster-randomized controlled trial in **Burkina Faso** found that promoting and building skills on **spousal communication contributes to stunting reduction among children.**
- Research proves that when **women contribute to household income**, children's health improves, and **malnutrition is reduced by a 43% over time**.

Diets and food consumption:

- Lack of support from men in household tasks and childcare was associated with poor diets for women and children.
- **Women are responsible for 90% of preparing and buying food.**
- **Women are eating last and least.**
- In Sudan, **65% of women and only 49% of men reported being food insecure**. In Nigeria, a woman IDP says, "We have reduced the amount of food for everyone, except my husband who is the man of the house."
- In Cote d'Ivoire **an increase of 10% in female controlled crops corresponded with a household food consumption increase of 2%**. When men controlled the crops, a 10% increase in production only increased household food consumption by 0.6%.

Agriculture and land:

- In Burundi, **investing in gender equality in agriculture brought a $5 return for every $1 invested, compared to a $2 return for every $1 invested in agriculture programs that ignored gender equality.**
- While women's formal land ownership does not automatically translate into control over land and decisions about it, l**and ownership is still a ticket to social inclusion in some countries.**
- Worldwide, just **15% of the land is own by women**, yet **they constitute at least 43% of the agricultural labor force**. Where women do own land, it tends to be smaller field sizes than men and lower quality, less productive land.
- Gender inequalities in agricultural settings are shown to limit the sectors' likelihood of supplying nutritious outcomes (food and diet diversity).
- Overall, **women's land ownership is connected to income growth and better child nutrition,** but women are usually not even recognized as farmers, so the services and technologies related to this are not designed to meet their needs. For example, women and girls are 26% less likely than men and boys to have a smartphone or mobile internet access.

Other examples shown among the literature reviewed are that despite economic growth in **India**, many women and girls are still in a state of food insecurity due to diverse inequalities such as restricted access to **production assets, education, unpaid work, decision-making, and persistent problems such as HIV/AIDS and GBV.** These

trends are true for women well beyond India, and the restrictions imposed on women impacts populations across the globe. For example, **the cost of GBV is 2% of the global gross domestic product.** Women also face severe financial restrictions; **1 billion women are unbanked**.

Global Commitment

This data is not intended to be definitive or causal. Rather, it shows a strong correlation at a global level between gender inequality and food insecurity. It builds from a rich existing literature from decades of study on the links between gender inequality and food insecurity to show that those findings are playing out on a global scale. While the contexts and causes of gender equality and food insecurity are specific in each research study that is already in the literature, this study shows that the relationships and results are global. It implies that there are important insights to draw—and actions to recommend—if we look at gender and hunger data more consistently and holistically. **Global datasets should be publishing sex disaggregated data on food**—whether the focus is on gender or on food. **At the very least, it is time to update our global understanding of food security and gender inequality**—similar to the FAO report in 2010-2011 and CARE's scoping paper outlining the relationship between gender equality and food security. Approaches that re-envision gender norms will allow the global conversation to transform power dynamics and the different structures that keep reinforcing inequalities among women, especially when it comes to gender roles and food.

Conclusion

As women keep feeding the world, we must give them the right space in our data collection methods and analysis to make the gaps they encounter visible and work with women themselves to find solutions to those gaps. Women are a big portion of global food producers, and they are usually the person in charge of feeding their families. But even so, gender norms still significantly limit women's own food security. Identifying and addressing the differences in gender roles, responsibilities and participation at the household level has the capacity to contribute to the strengthen food security globally, as well the nutritional and health status of populations. Put bluntly, here is what the findings say: **as gender inequality rises, people get less food to eat on a national and global scale.** This holds true across more than half the countries in the world.

Ultimately, **data analysis illustrates that the lower gender inequality is, the greater food security is**. Leaving women behind in crises and ignoring solutions designed for and by women leaves more room for new crises and worsens existing ones—not just for women, but for everyone. Women and gender equality must always be a part of solutions—no matter what sector—to identify the inequalities experienced and balance responsibility and opportunities for women and men that allow countries households to cope and adapt to the different contexts.

This brief information is drawn from https://careevaluations.org/evaluation/food-security-and-gender-equality/

[i] Gender Inequality Index. Human Development Reports, 2019.
[ii] Food Security Scores. The Economist, 2021.