

# ERF Policy Brief

## Food Security in Turbulent Times: A Gender Lens

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### About the authors

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### In a nutshell

- The Russian war in Ukraine led to significant disruptions in trade in cereals, especially wheat and other products that are key for food security.
- The case of Egypt is of particular interest as it is the largest importer of wheat and it experienced other concurrent economic crises.
- Female headed-households and women in female-headed household were the most to bear the cost of the crisis in terms a stronger food insecurity.
- While most of the policies are rather reactive and vague, it is important to develop more proactive policies that consider the gender component.

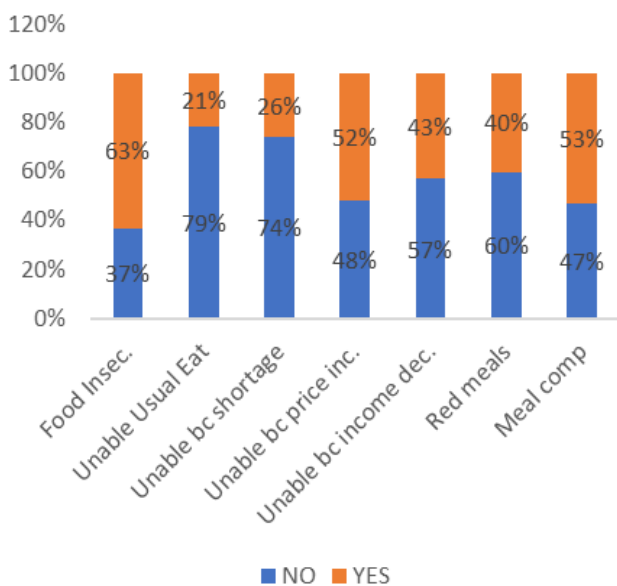
### Overview of gender and food insecurity during the war in Ukraine

The economic impacts of the war in Ukraine are high and uncertain (Zaki et al., 2023), especially on food security. Indeed, the war led to significant disruptions in trade in cereals, especially wheat and other products that are key for food security. For instance, Devadoss and Ridley (2024) find that the conflict causes wheat prices to increase in most of the countries by around 2%. The case of Egypt is of particular interest as it is the largest importer of wheat; it experienced other concurrent economic crises; and is among the largest economies the Middle East and North Africa. Indeed, the war was accompanied by several other shocks (increase in debt, IMF Loans, currency devaluation, and soaring inflation). Moreover, the impact of the war has been amplified by other structural characteristics such as the distortion of energy and fertilizer markets as well as domestic policies, like in other developing countries (Chepeliev et al., 2023). In such a poly-crisis context, the impact on households is heterogeneous and the coping strategies were diverse.

In order to examine the impact of the war in Ukraine on food security, I use a recently collected data by the Economic Research Forum. These data are collected for two countries (Egypt and Kenya) with a sample of 2000 observations per country. They include several

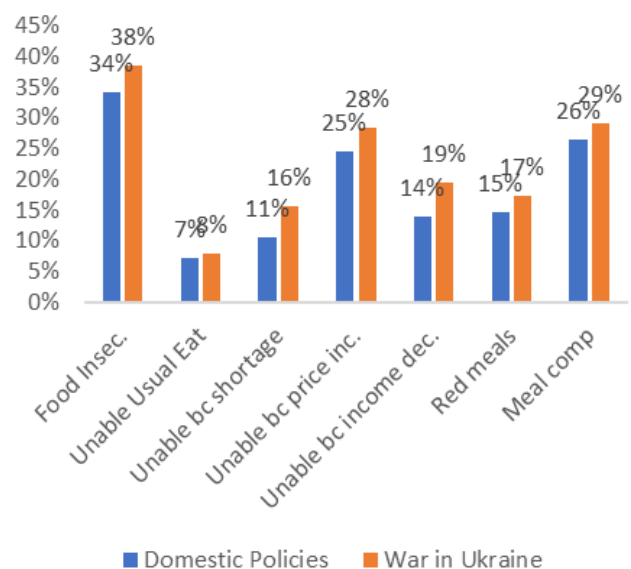
modules starting with a basic one (including socio-economic characteristics), food security, income, farmers, workers, business, and the reasons behind the recent crisis. The data were collected through phone survey, which means that most of the variables we use in the empirical analysis are perception-based. As per the variable of interest, namely food insecurity, I use self-reported variables that take the value of 1 if the individual is food insecure, and 0 otherwise. Thus, an individual is food insecure if, during the past seven days, they were unable to eat the usual amount; they were unable to buy the usual amount because of shortages; they were unable to buy the usual amount because of price increases; they were unable to buy the usual amount because of decreased income; they reduced meals/portions; or they have to change the meal composition. The last variable is a continuous one constructed using a principal component analysis for the six measures aforementioned. Food insecurity measures are heterogeneous, with most of the households unable to buy because of higher prices or had to change the meal composition, and to a lesser extent income decrease (see Figure 1). Yet, there is a positive association between those who report that the War in Ukraine is the primary reason of their economic conditions and the share of food insecure (Figure 2), pointing out to what extent the war increased their vulnerability given the high levels of inflation.

Figure 1: Food insecurity in Egypt



Source: Authors' own elaboration using Egypt's Survey  
 Note: Survey weights are used.

Figure 2: Food insecurity and crisis reasons



Source: Authors' own elaboration using Egypt's Survey  
 Note: Survey weights are used.



The data also shows that female-headed households were more likely to suffer in most of the measures (Zaki, 2024). More importantly, when the gender of the household is interacted with the gender of the respondent, it is clear that females in female-headed households were always more food insecure than their counterparts in other households. For instance, 88% of females in female-headed households had at least one dimension of food insecurity whereas this figure is 5% for males in female-headed households, 60% for females in male-headed households, and 49% for males in male-headed households. These figures show to what extent women in this case can bear a double cost: being a female and in a female-headed household.

## Methodology and findings

To understand the impact of trade effect on food security, I run a linear probability model (and a probit model) where the dependent variable is a binary variable that takes the value of 1 if the individual is food insecure, and 0 otherwise. An individual is food insecure if, during the past seven days they were unable to eat the usual amount; or they were unable to buy the usual amount because of shortages; or they were unable to buy the usual amount because of price increases; or they were unable to buy the usual amount because of decreased income; or they reduced meals/portions; or they have to change the meal composition. The explanatory variables consist of the individual characteristics such as the gender of the respondent, age, marital status, education. Moreover, I add some household characteristics, which include the household size, the gender of the household head, and the geographical location. To better capture the poly-crisis Egypt is facing, two dummy variables are included, which are *Dom pol* for those who rank domestic policies as the most important reasons behind their current situation and *Ukraine* for those who rank the war in Ukraine as the most important reasons behind their current situation.

The main findings show that, the war is not the sole responsible of food insecurity in Egypt. Indeed, the way the domestic economic policies were implemented increased this insecurity. The war impact was heterogeneous depending on the individual characteristics of households. Thus, larger households and rural ones were more likely to be food insecure. Second, female-headed households and females in female-headed household were the most to bear the cost of the crisis. Whereas these categories were more likely to adopt different coping strategies to face the crisis, the government support did not a significant

impact to reduce the negative implications of the war, with the exception of social security.

## The way forward

As food insecurity is female-sensitive, it is important to develop policies where gender is mainstreamed. This is why several the brief proposes two groups of policy implications: general ones and others that focus on the gender dimension.

First, more structural reforms are needed to address the structural problems of the Egyptian economy given that food insecurity reflect other weaknesses of the economy. Among these reforms, it is crucial to diversify trade partners from Egypt imports basic food (such as cereals) to reduce its vulnerability.

Second, for the agriculture sector, the government needs to provide a stronger support to small-scale farmers and food producers, which can partially address the problems related to gender and food security. Indeed, in recent years, the government was primarily focusing on mass production and incentives to major Egyptian and foreign investors. This support can include investment in infrastructure, education to upgrade their skills, and financial services to help them expand their business (from microfinance institutions, such as Micro, Small and Medium Enterprise Development Agency – MSMEDA - in agribusiness activities).

From a gender lens, several policies are needed. First, while most of the policies are rather reactive and vague, it is important to develop more proactive policies that consider the gender component. This will help increase the resilience of vulnerable households, especially through the aforementioned structural policies.

Second, as it was mentioned before, all government support programs did not help reduce food insecurity with the exception of social security. This result is of particular interest as Egypt is characterized by a high level of informal employment (without social security). This is why formalizing informal employment can also be perceived as a food security policy as it reduces vulnerability. Obviously, this cannot be dissociated from more inclusive policies that increase women participation in the labor market and that provide better employment and income earning opportunities.

Third, to reduce women vulnerability, access to resources to produce food and purchasing power to buy food are key. This is why it is important to guarantee women's equal rights to land ownership with males; to



encourage the use of suitable inputs and technology and to provide them with the necessary support that is generally needed for small farmers. Other medium-term challenges include climate change problems and water stress as they directly affect the agriculture sector and women. Thus, the government must address this with the appropriate mitigation and adaptation policies.

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