



Food Insecurity and Unrest

What do we know? Approaches, explanations and challenges

The fluctuations of food prices over the last decade have led to a renewed interest in the link between food and conflict, and changing climatic patterns have contributed to a concern that conflicts over food will become more profound in the future. There is an emerging consensus that rising food prices increase the risk of unrest, but the suggested mechanisms vary. Clarity in the concepts of food insecurity and unrest and corresponding measurements will further advance the field.

Brief Points

- Explanations of how food insecurity leads to unrest tend to have deprivation at the core of the argument.
- The link from conflict to food insecurity is more powerful than the link from food insecurity to conflict.
- Unrest is more likely to be initiated by the urban middle class, rather than the most food insecure.
- The term 'food riots' can be misleading, as unrest sparked by food prices often reflects deeper political and socioeconomic issues.

Food Insecurity and Unrest

What defines food insecurity and unrest?

The concept of food insecurity is wide-ranging and includes a variety of different understandings, where the definition has continuously developed and broadened over time. The Food and Agriculture Organisation's (FAO) own definition describes food insecurity as a situation in which "people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active, healthy life".

In the academic literature there exists an extensive list of different understandings of food insecurity. This ranges from there being no solid definition of food insecurity at all, to food insecurity being conceived of as price changes of food both in the domestic and international market, or the inability of actors to secure sufficient access to food. There are also discussions concerning not food insecurity itself, but the prospect or threat of food insecurity in the future due to changes in the price and/or supply of food. Thus, how food insecurity is defined varies, which can make comparisons between studies challenging. What is common for all of them, however, is that food insecurity is linked to the individual. Nutritional security and the threats to this status are central to the definitions in the literature. Also, the literature includes a wide range of outcomes, such as non-violent demonstrations, protests, riots, communal conflict and civil war. Unrest is used here as an umbrella term to capture these different outcomes in the literature.

How has the relationship been studied?

It is possible to group four clusters of research that have studied the link between food insecurity and unrest. The first cluster of research is mostly based on case studies focusing on France, England and Russia in early modern history. These scholars often focus on the liberalisation and centralisation of food market policies as an explanation for unrest, where reducing the local control of grain and going against what was seen as legitimate practices by the people were central explanations for how food was linked to unrest.

The second empirical wave of research focused on the widespread protests and riots that occurred in many developing countries in the 70s and 80s, often labelled the 'IMF riots'. Although these contributions also focused on the effects of trade liberalisation on the population, it was not the changes in domestic government food policies that led to unrest, but changes in

the international political economy. The effect of this liberalization, however, was seen as analogous to the economic transformations in early modern Europe.

The third cluster of research has focused on the food price peaks in the 2000s and the widespread turmoil that followed. The mostly quantitative literature often focuses specifically on food insecurity relating to food price increase, both domestic and international. In addition to focusing on the changes in the prices of food, other recent contributions have used indicators such as child stunting and malnutrition, speaking to a broader understanding of food insecurity that includes the chronic lack of access to food.

A fourth line of research has evolved in parallel.

Whereas the already mentioned clusters focus on food from a consumer standpoint, this literature is concerned with the production of food and the loss of income from agricultural yields when prices go down. This literature is not concerned with insecurity of food access, but with poverty and income, and is related to food to the extent that people get their income from agricultural produce. Thus, it is an unsettled issue how the effect of increased income from agricultural produce works alongside the food-insecurity effect of higher food prices paid by consumers.

Suggested Theoretical Mechanisms

As the previous section illustrates, the literature on food insecurity and unrest is large and diverse, but there are also some commonali-

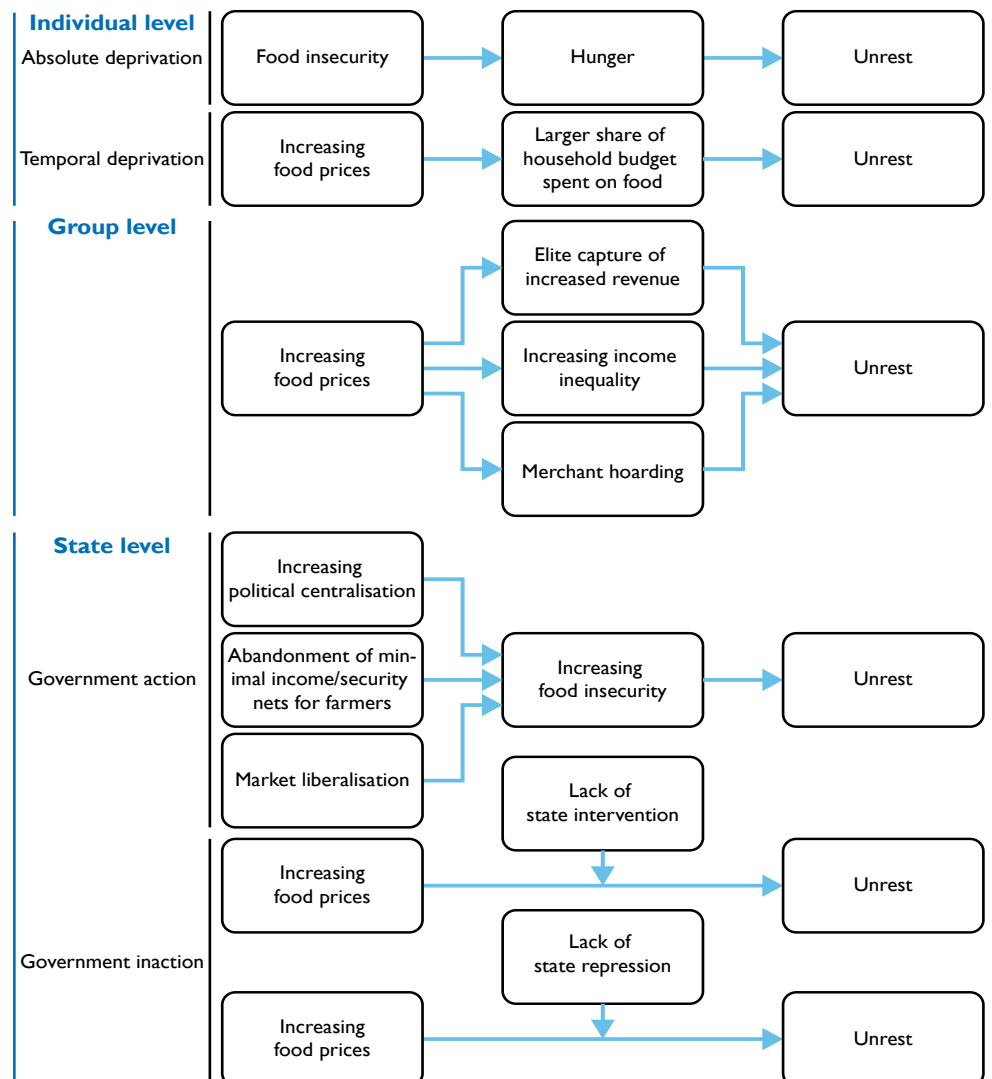


Figure 1: Causal diagram of the main theoretical mechanisms within the field.

Important findings in the literature

- The very poor and food insecure often lack the ability to engage in unrest to address grievances. So-called food riots tend to not cluster in areas where food insecurity is most profound, but instead where communities are able to mobilise, often the urban middle class.
- Whether unrest occurs is dependent on the social groups' ability to engage in collective action, which is dependent on whether state institutions facilitate or repress these types of activities. In general, democracies seem to be more prone to unrest during food price rise than authoritarian regimes, as autocracies often repress public unrest.
- The literature often points to profound political and economic issues of a more fundamental nature as causes of unrest, such as corruption, unemployment and democratic reforms, where the increasing food prices only functioned as a trigger.
- While increasing food prices may cause increased hardship on net consumers, this is not a monotonic relationship. Increasing food prices do not necessarily lead to increased food insecurity. Many food insecure live in rural areas, and while many are net purchasers of food, several are also net producers or make use of subsistence farming that is not affected by market fluctuations. Increasing food prices may benefit rural net producers who get a better price for their products.
- There is also evidence that loss of income from agricultural producers increases the risk of unrest: when food prices drop, farmer income goes down, which also has the potential to trigger conflict. The discrepancies in findings suggest that the effect of increasing or decreasing food prices varies greatly between households, where these differences are related to both urban-rural and producer-consumer categories.

ties that are possible to identify. Overall, explanations for how food insecurity leads to unrest tend to have deprivation at the core, while the source of the grievance differs between studies. The different approaches can be divided as relating to individual, group or state level grievances. Figure 1 shows a causal diagram of the main explanations within the field.

Individual level explanations

Part of the literature focuses on the stress placed on the consumer when faced with increased costs of living in relative or absolute terms. Theories based on absolute deprivation focus on how increased scarcity of resources such as cropland and water could increase violence. These expectations tend to be related to the Malthusian argument, where the availability of food does not match a continuously growing population. Poverty, hunger and violence are then eventually inevitable outcomes. According to these accounts, violence becomes a rational reaction to food insecurity, where violence erupts when the population cannot access food, and becomes so desperate that they engage in violence to acquire it. Unrest, then, corresponds to the depth of hard times.

Other contributions focus on the relative nature of deprivation, which is the experienced gap between a person's desired and actual situation. Most classical contributions of relative deprivation theory tend to focus on the temporal aspect of deprivation, where an individual's standard of living worsens over time. More recent studies emphasise the relevance of relative deprivation linking

food to unrest, due to its fundamental nature and the amount of income spent on acquiring food.

Group level explanations

Some contributions focus on group aspects such as food hoarding, elite capture of resources, the lack of state redistribution to certain groups or social security nets, and situations where the population blame other groups in society for increased food prices. These aspects are theoretically linked to the aspect of relative deprivation that concerns group comparisons, also known as horizontal inequalities. Unrest does not come from the level of food scarcity, but from factors that influence differences between societal groups. One example is food hoarding, where food is linked to unrest due to the perception that some segments in society are benefiting from the increasing food prices, while others' status is deteriorating.

State level explanations

Other strands in the literature on food insecurity and unrest focus on food trade, and the perceived legitimacy of this food trade. These contributions question studies of food and unrest as a direct result of hunger. Rather, it is the increasing market centralization and changing economic policies that established the national food market that are the causes of violence. This is not "rebellions of the belly", but a result of farmers defending traditional social norms and customs. Unrest occurs due to authorities going against the popular consensus on what is seen as the moral economy and legitimate practices in the market. Thus, by engaging in unrest,

the rural population seeks to influence the central government to shield local consumers from high food prices or low food availability, often referred to as the problem of subsistence.

The extent and depth of food insecurity is dependent on states' internal affairs, and state institutions are likely to affect the relationship between food insecurity and unrest. One aspect is the state's capacity to shield its population from food shortages and changing food prices. One conditional mechanism put forth in the literature is therefore the degree to which the government is able or willing to provide food subsidies and intervene on behalf of certain groups to dampen the effect of increased hardship.

The second aspect linking state characteristics to food insecurity and unrest is the fact that aggrieved actors must also have the opportunity to engage in unrest through mobilisation. Theories focusing on the collective action of unrest emphasise the observation that many people are poor and hungry, but social unrest caused by such circumstances are rare. Thus, the focus is rather on the opportunity structure available for groups in society, their ability to mobilise, and whether the state institutions facilitate or repress collective action. For example, some strands in the literature find that democracies are more prone to unrest when food prices increase, both because autocracies are more likely to repress its citizens, and because democracies allow discontent to be expressed through protests and demonstrations.

Avenues for Future Research

The literature on food insecurity and unrest has seen an astonishing expansion in recent years, adding to a substantial, mostly qualitative, literature in the field. At the same time, there are some aspects that can be improved as the field develops.

The first relates to the various definitions of food insecurity and suggested theoretical pathways, and the corresponding empirical tests. The theoretical mechanisms are related to factors such as collapsing food entitlements, the increased share of the household budget spent on food, or the unique nature of food as an unsubstitutable good. However, despite the fact that the literature often presents different explanations for why unrest occurs, contributions tend to proxy the relationship in a similar way with indicators on an aggregate level: whether food price increase correlates with unrest. Thus, we lack more precise measurement and analysis to capture these different suggested

mechanisms. To advance conceptual and empirical clarity, it is useful to be explicit about the definition of food insecurity that underpins the research, what aspects of food insecurity are in focus, and how this conception of food insecurity relates to unrest. It would be a step forward to explicitly model conditional effects to specify in which context we would expect unrest to occur.

The second issue concerns the measurement of food insecurity. Ideally, how food insecurity is defined should have implications for the appropriate empirical test, where the theoretical definition of food insecurity matches the chosen independent variable and research design. To date, there have existed multiple different indicators of food insecurity: food price rise, the human poverty index, weather shocks reducing agricultural output, the share of cropland, child malnutrition, stunting, and the share of workers in the agricultural sector, to name a few. Due to the complicated phenomenon and the wide range of relevant aspects of food insecurity, it can be difficult to capture it in measurement. The use of proxies has the potential risk that some aspects of the phenomenon are not measured, while introducing other aspects that do not necessarily relate to food insecurity. In any event, the theoretical definition of food insecurity and how it is reflected in the chosen measurement should be made explicit to facilitate comparisons between studies.

Lastly, while increasing prices may cause increased hardship on net consumers, it may benefit net producers. A parallel literature exists focusing on how a loss in income from agricultural products increases the risk of unrest. The discrepancies in findings suggest that the effect of increasing, or decreasing, food prices varies greatly between households, where these differences are related to both urban-rural and producer-consumer categories. Whereas increasing food prices is expected to negatively affect the urban consumer dependent on the market for food, it could benefit rural producers who get a better price for their products. Thus, the effect of food price fluctuations varies greatly not only between

states, but also within. Both literatures focus on the temporal changes in the household budget and the share of income spent on food. However, whereas the literature on food insecurity focuses on the access to food as the proposed mechanism, the literature on negative agricultural income shocks focuses on explanations concerning lower opportunity costs for rural dwellers and weaker state capacity due to loss of state revenues.

The third issue relates to heterogeneity in the dependent variable, where a wide range of outcomes are studied. Most contributions tend to focus on riots, which implies a given reaction to increased food insecurity. However, there are no theoretical implications suggesting that unrest related to food manifests itself primarily through riots. It is not given that protests or riots are the most likely or obvious response to food insecurity; a wide range of possible actions can occur due to food insecurity.

Also, several contributions look at events that are termed 'food riots'. They do this, for example, by including a dependent variable that is based on searches in news stories that have words such as 'commodity', 'food', 'grain' and 'demonstration', 'mob', 'protest' and 'riot' in the same news article. However, what food-related unrest or food riots means varies between contributions. Food-related unrest can be difficult to identify, as living expenses is a recurring issue in all types of unrest. Studies have shown that news stories on unrest can be biased, especially in international media, where hunger and rising food prices are presented as the reason for unrest. However, we know from the literature that it is not the most food insecure who partake in unrest when food prices rise, but rather the relatively better off. The very poor often do not have the resources to engage in unrest. Indeed, unrest during food price rise rarely occurs in areas where people are most food insecure, but rather where the population is able to mobilize – often the middle class in urban areas.

Local media, on the other hand, often point to a set of underlying political and socioeconomic

issues relating to factors such as redistribution, corruption and group inequality, where rising food prices were only a part of the stated grievances. Thus, the degree to which food actually is the main issue behind the unrest is often unclear. Although there are no quick fixes, a possible solution would be to either not discriminate between the different types of unrest as a potential outcome (i.e. where it is the number of actual events, and not the number of food riot reports that is included in the analysis), or focus on a clearly defined type of unrest, based on theoretical expectations.

Finally, the topic of food insecurity and unrest also faces some challenges when it comes to reversed causation. Issues related to endogeneity are not unique for this topic, but perhaps especially important to consider. Indeed, the link from violent conflict to food insecurity is more powerful than the link from food insecurity to violent conflict. Armed conflicts damage agricultural production and food systems, and lead to loss of assets and revenues. As a result, they are important drivers of food insecurity and malnutrition. The topic on food insecurity and unrest has few studies that explicitly try to model causal effects. However, the field with a quantitative focus is relatively new, and the methodological development to model theoretical assumptions is at the forefront of this field. Thus, we are likely to see rapid advances in research design as the field moves forward.

The interesting questions related to this topic are many, and an important step would be to go beyond the correlation between food insecurity and instability, and empirically implement the assumed mechanisms and conditional effects. Hopefully the propositions presented here could provide some potential pathways for the way forward. ■

Notes

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THE PROJECT

The Conflict Trends project aims to answer questions relating to the causes, consequences and trends in conflict. The project will contribute to new conflict analyses within areas of public interest, and works to produce thorough and quality based analysis for the Norwegian Ministry of Foreign Affairs.

PRIO

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