1 Resilience to famine ca. 600 BC to present

An introduction

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1. Central issue

In its 2018 report *The state of food security and nutrition in the world*, the Food and Agricultural Organization (FAO) points out that malnutrition is on the rise again since 2015. This rising trend is mostly driven by Sub-Saharan Africa and Latin America with shares of the population suffering from chronic undernourishment of 23.1% and 5.4% respectively in 2017. Various factors are underlying this reversal but one major reason indicated in this report (2018: 38), and one of the main causes of extreme food crises, concerns 'climate', with the number of natural disasters having doubled since the 1990s. Yet, despite the popularity of 'natural disasters' as an explanation for food crises, there is wide agreement among scholars that few – if any – famines can be blamed on nature alone (Sen 1981). Even if the triggering event clearly is a natural hazard, such as an earthquake, storm or drought, it is usually the interaction between natural and human factors that determines whether such an event develops into a famine marked by severe damage to lives or livelihoods (Wisner et al. 2004: 49–50). In all societies, some groups or individuals are more vulnerable than others; but some societies are better than others in preventing famines from occurring, or at least in mitigating their consequences if prevention is not possible (e.g. Currey 1980: 463).

This is not just true for present-day societies, but also for past ones. Social structures, political relations and economic conditions affected their ability to cope with hazards just as they do in societies today. History provides many examples of situations in which weather conditions, flooding or some other natural event gave rise to harvest failure and subsequently triggered a food crisis: a period of shortages, dearth and distress. Not every harvest failure resulted in a crisis, however; nor did every crisis end in an outright famine, defined by Cormac Ó Gráda (2009: 4) as "a shortage of food or purchasing power that leads directly to excess mortality from starvation or hunger-induced diseases". Obviously, the severity and characteristics of food supply problems mattered, but the institutions and arrangements of the society that experienced it contributed as well. This volume discusses societal resilience to food crises and famines: the responses and strategies at the societal level that effectively helped individuals and groups to cope with drops in food supply, in various parts of the world over the past two millennia.

2. Theories and concepts

The notion that famines are not just the consequence of production failures induced by natural disasters but are affected by human agency is prominently present in the entitlement approach developed by the Indian economist and Nobel laureate Amartya Sen in the 1970s. Sen argues that famines are not caused by food availability decline (FAD) but by the 'entitlement failure' of specific groups in society who are no longer able to obtain food. Expressed in the opening words of Sen's *Poverty and Famines*: "Starvation is the characteristic of some people not *having* enough food to eat. It is not the characteristic of there not *being* enough food to eat" (Sen 1981: 1; original italics). In Sen's interpretation entitlements are closely linked to markets and the position of individuals and households in those markets. His research focuses mainly on changes in the 'exchange entitlements' determined by the impact of rising market prices on the purchasing power of, for instance, agricultural labourers or workers in the urban service sector (Sen 1981: 62–70). Critics, however, have pointed out that the entitlement approach, at least in this rather narrow interpretation (De Waal 1990), does not pay sufficient attention to the social and political context. Famines are complex processes that cannot be understood without taking into account that individuals and households are embedded in a social and political environment (Devereux 2001a; Vanhaute 2011).

The entitlement approach has gained wide currency in the study of famines, also among historians (e.g. Tilly 1983; Fogel 1992), and is still very influential. For the premodern era recent research has given rise to a partial re-appraisal of the role of nature, pointing out that in many cases famines were triggered by production problems (e.g. Hoyle 2010; Alfani 2010). This, however, has not resulted in a return to earlier monocausal explanations. Instead, an awareness has emerged that even if natural processes do trigger a food shortage, the degree of suffering that ultimately results depends on man-made factors: the agency of individuals, but also institutions (Alfani and Ó Gráda 2017: 3–4).

This volume unravels societal resilience to food shortages from the angle of the three main coordination mechanisms that, in any society, allow people to allocate or share resources: the state, the market, and civil society. Here we follow the path of Polanyi (1957), who studied different coordination mechanisms for ancient societies and distinguished *quid pro quo* exchange, coercion, and solidarity and reciprocity (Paquet 1999: 5). These mechanisms were simplified by Perroux (1960) and Boulding (1970) into a triangle of state, market, and civil society. 'State' refers to the actions of governmental bodies: national (and colonial) but also regional or local authorities regulating the market or providing aid through a variety of means such as reducing taxes, introducing employment schemes, or distributing food directly. 'Market' refers to the organization of exchange, of foodstuffs but also of other commodities and of labour, land and capital. 'Civil society', although a modern concept, refers to something that can also be found in premodern societies: we use the term here to refer to the actions of a variety of groups and communities between individual and state. Each of these three mechanisms can be seen as a

bundle of institutions that shape the options for action open to individuals, groups and organizations in response to a food crisis. According to some, over time additional, hybrid coordination mechanisms have emerged, such as non-governmental organizations which draw power from the state, money from the market, and interact with civil society (Hoffmann 2011). Since NGOs are theoretically closest to civil society, others consider them to be part and parcel of that civil society (as does Chapter 11 in this volume). The balance between coordination mechanisms is in no way static. In certain regions or time periods the state may be dominant, in others the market or civil society.

This volume aims to place the ways in which the three main coordinating mechanisms shaped the reaction of societies to food crises in a comparative and long-term perspective. It examines responses to drops in food supply generated through the three coordination mechanisms in a variety of regions and periods, analyses their contribution to famine resilience, and attempts to explain the differences and changes encountered. Most chapters are either explicitly comparative or cover a lengthy period of time; some are both. Together, the chapters allow for an investigation of shifts from one coordination mechanism to another and how this was affected by developments such as the rise of the nation state, colonialism, or globalization.

We will return to the three coordination mechanisms and their contribution to famine resilience in Section 3, but first the general concept of societal resilience deserves attention. In disaster studies, resilience is a relatively new concept. Between the 1970s and 1990s disaster scholars primarily focused on vulnerability, defined as "the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard" (Wisner et al. 2004: 11). Research concentrated on identifying vulnerable groups and tracing the 'root causes' of their vulnerability; marginality and poverty were found to be important determinants (Wisner 1993). Sen's entitlement approach actually neatly fits into this perspective. Around the turn of the twenty-first century attention shifted from vulnerability of individuals and groups towards the resilience of societies. In analogy with the use of the term in ecology, where it refers to the capacity of ecosystems to absorb disturbances, "social resilience" was defined as "the ability of communities to withstand external shocks to their social infrastructure" (Adger 2000: 361), or in other words: the ability to 'bounce back' to the state before the shock occurred.

In recent years, the meaning of the concept has broadened to also include 'bouncing forward': the capacity of societies to adapt or even completely transform in reaction to a shock (Sudmeier-Rieux 2014). This wide interpretation has the advantage of accommodating the change displayed in reaction to shocks by many societies, both past and present ones, but it tends to overlook the fact that societal change may well be accompanied by serious damage to specific individuals or groups. As one historian remarked: the ultimate test of societal resilience should still be the capacity of society to limit suffering and disruption (Soens 2018: 176). Following this line of reasoning, famine resilience may be defined as the ability of societies, through the three coordination

mechanisms (state, market, and civil society) and their interaction, to restrict the impact of food crises to human lives and livelihoods, whether through absorption of the shock, adaptation to new circumstances, or drastic transformation of social, political or economic structures. In the case of absorption and usually also of adaptation, the balance between the three coordination mechanisms hardly changes, but in the case of transformation it may shift dramatically.

3. Famine resilience in historical research

Markets

Existing historical research on the causes and effects of famines and food crises touches upon the way in which the three coordination mechanisms, separately or combined, affected resilience, although often only implicitly. For markets, this discussion is part of a larger one, which sometimes carries strong ideological undertones: the debate on the importance and role of markets in general. The first question to be answered is whether markets were always in place. Based on, amongst others, Polanyi and Weber, Moses Finley (1973) described ancient societies as 'primitive' in the sense that no society-wide market exchange system existed. Clifford Geertz (1978), discussing peasant societies, took a less rigid view, claiming that in peasant societies markets did function, even though they were not driven by competition alone but also by social and cultural factors. Recent studies have confirmed the existence of markets, in this wider sense of the term, in virtually all time periods and regions (Van der Spek et al. 2014).

A related issue, bearing directly on famine resilience, concerns the benefits of unfettered versus regulated markets. In *The wealth of nations* Adam Smith argued that famines were mostly caused by inappropriate government interventions in the market. In normal circumstances, traders would send grain to deficit areas where prices were highest: free markets, in other words, were the best remedy against famine. There are, however, three problems with this argument. Firstly, as pointed out by Ó Gráda and Chevet (2002: 707), this only works if markets perform well: if they do not, arbitrage is also limited. Secondly, the mechanism described by Smith also depends on the presence of information that allows traders to judge where, when, and at what scale, shortages occur: insufficient or unreliable information may lead to speculation and price bubbles. Thirdly, even if arbitration works, food might travel to regions with the highest incomes rather than to those that need it most.

Exactly how markets react to food shortages, and how this in turn aggravated or mitigated famines, has been the object of debate, much of it based on detailed quantitative analysis. For the Finnish famine of 1866–1868, for example, there are no clear indications that market performance, although it was certainly lower than it is today, aggravated the famine (Ó Gráda 2001). The same is true for the French famines of 1693/94 and 1709/10 (Ó Gráda and Chevet 2002). Yet, Drèze and Sen (1989) and Ravallion (1997) have argued exactly the opposite for modern famines by pointing at problems with market performance as the main instigator. Likewise,

Slavin (2014) showed for the Great European Famine (1315–1317) that market performance deteriorated, thus exacerbating the famine.

While this volume does not engage in econometric analysis of the relationship between famine and market performance, several chapters discuss aspects of that relationship. In the early Roman empire, for instance, market information spread slowly and regional markets were but poorly connected (Chapter 3). Chapter 2 suggests that this was also the case for other empires in antiquity. In other cases, however, the problem is not that markets underperformed, but that they reacted to purchasing power rather than to needs. This is not a new finding. During the Great Irish Famine in the 1840s, grain shipments from Ireland to England continued to take place because the Irish poor could not afford to buy the wheat (Ó Gráda 2007a: 53). As Chapter 11 shows, similar problems occur in present-day Africa. In theory, the liberalization of grain markets and their incorporation in the world economy opens up new possibilities for food imports during crises; however, traders may be more inclined to focus on high-value products instead of on food for people who can barely afford to buy it.

State

The 'state' is a convenient, but rather imprecise term: we use it here to refer to both central and local authorities and their role in famine resilience. Interventions by the authorities during food shortages were often regulatory: governments tried to regulate markets by a variety of measures including restricting exports of food, prohibiting hoarding and speculation, and price setting. Some governments went further and attempted to stimulate production and improve transport; in other cases still, they invested considerable sums of money to establish public stocks and provide food relief. The scholarly literature for premodern Europe suggests that such responses should be seen as attempts to compensate for the shortcomings of markets (Persson 1999: 72–84; Jongman and Dekker 1989). The contributions in this volume do not reject this view: Chapters 2 and 3, for instance, show that this is indeed what happened in antiquity. For other periods, however, the volume refines this notion by drawing attention to the complexities of the relationship. In colonial Indonesia, for instance, dysfunctional rice markets gave rise to a careful balancing act of the colonial authorities: some regulation was deemed necessary to curb speculation, but too much of it would create market distortions and thus trigger the exact behaviour – speculation and trafficking – that the authorities wanted to restrict (Chapter 8). Likewise, whereas in premodern Europe there was indeed a complementarity between state and market, in other regions, such as China, it was mostly the state that dominated: this was the situation in the premodern era, and again, after an interlude during the Qing dynasty, in the second half of the twentieth century.

The intensity and nature of government responses to food crises is affected by the powers they possess; in turn, the involvement of states with food supply was frequently instrumental in maintaining and reinforcing that power (Tilly 1975). In this volume, this is evident in the chapter on colonial India (Chapter 9), where

state relief not only reformed indigenous relief systems but also legitimized the claim of the colonial authorities to a role as main source of welfare. The two chapters in this volume that pay attention to China also demonstrate the close relation between state power and famine aid. In China response to food crises was dominated to a very significant degree by the agency of a powerful, centralized state; at the same time, the moral authority of the Chinese government depended upon its ability to ensure a steady food supply, as famines were seen as a sign that the emperor's Mandate of Heaven was revoked (Edgerton-Tarpley 2008: 90–92). It bears emphasizing, however, that Chapter 12 also shows that even in China, the state throughout the period under examination relied on local communities and increasingly also on market mechanisms to carry out its policies.

In large empires another aspect of the relationship between state power and food provisioning policies comes to the fore: the rulers of these empires, motivated by the need to satisfy center-based elites and prevent popular unrest in the capital, usually prioritized the provisioning of the center over the periphery. In this volume, the chapter on the Inca empire (Chapter 5), but also those on the early Roman empire (Chapter 3) and on Russia and China (Chapter 10) bear testimony to this principle.

It is obviously incorrect to assume that governments always attempted to mitigate the consequences of food shortages and prevent their recurrence to the best of their abilities (e.g. Mittal and Krishnan 1997). Nor was a lack of capacity the only reason for refraining from acting. Lack of interest, priority to other issues, and even the use of hunger for political purposes were by no means uncommon. An influential line of thought, established – again – by Amartya Sen, suggests a link with regime type. Based largely on the comparison between communist China and post-colonial India, Sen has claimed that major famines do not occur in democracies because a free press, opposition parties and regular elections will induce a government faced with the prospect of food shortages to take timely and adequate action to mitigate the consequences (Sen 2001: 178–180; cf. D'Souza 1994; Devereux 2006; Plumper and Neumayer 2009).

Challenging Sen's hypothesis, recent research focuses not on democracy as such but on specific institutions and practices of good governance found, perhaps, more frequently – but not exclusively – in democratic societies, such as high government capacity, controls on corruption (Burchi 2011), effective decentralized government (Banik 2007), checks to prevent domination of government by a single interest group, or a clear division of responsibilities between governmental bodies (Rubin 2009). The contributions in this volume confirm that the link between famine resilience and regime is not a straightforward one. Some of the cases discussed in the chapter on Africa (Chapter 11) were officially democracies, but nonetheless the mechanisms of regular elections and a free press were insufficient to prevent famine. Likewise, the chapter on Russia and China (Chapter 10) does not release the communist regimes from their role in the famines of the mid-twentieth century, but adds a new dimension by positioning governmental reactions in a long-term perspective.

Civil society

The concept of civil society is closely related to the notion of social capital. Collective action is supported by social capital, which it also reinforces: social networks rely on, but in turn generate reciprocity, solidarity and trust. Scholars studying the role of social capital in present-day disasters have pointed out that social capital, by allowing people to spread risks, share costs and gain access to much-needed resources, is instrumental in mitigating the impact of shocks and facilitate recovery (Aldrich 2012; Aldrich and Meyer 2015; Hawkins and Maurer 2010).

Historically, this was also the role played by collectives in famine resilience. Three forms stand out, the first of which regards commons: the shared but regulated use of common agricultural land, pastures, forests or marshes. While Garrett Hardin's influential article "The tragedy of the commons" (1968) argued that common resources are unsustainable as individuals acting out of self-interest will unavoidably deplete them, historical research has shown that well-governed commons could not only be an effective tool in managing resources but could also help to reduce uncertainties (De Moor et al. 2002; De Moor 2015). Open fields, for instance, limited risks of crop failure by scattering plots over fields with different soil and drainage conditions, while usage rights to woods, wastelands or streams provided those with no or little access to arable land with nuts and berries, fuel and building materials, pasturage, and fish. Particularly important from the perspective of the alleviation of hunger was gleaning (Hindle 2004: 27–48; King 1991). In the current-day developing world, dependency of the poor on common resources is still substantial (Beck and Nesmith 2001). In this volume, the risk-reducing role of commons is also in evidence in the chapter on Flanders during the potato famine (Chapter 7).

A second type of collective relevant for famine resilience concerns the organizations providing outdoor poor relief (aid to poor people living at home) in many parts of Europe from the late Middle Ages onward. In the towns of southern Europe, poor relief was mainly provided by confraternities that also fulfilled other social functions. In the north, at least after the important reforms of poor relief systems that took place in the sixteenth century, this was the responsibility of communal institutions, which even when they had religious roots were governed by laymen and supervised and regulated by the local authorities (Prak 2018: 118–126). Organized poor relief could reduce risks and uncertainties, including those posed by food crises. Chapter 6 discusses this contribution by comparing the ability of poor relief systems in southeastern England, northwestern France and the northwestern Low Countries to alleviate the impact of food shortages.

Finally, from the end of the eighteenth century onward charitable associations emerged that focused specifically on providing aid, to members or to others, during food crises. In the difficult years around the turn of the eighteenth century, organizations emerged in English towns and cities that distributed soup among the poor, funded by subscriptions from wealthy fellow-townsmen (Bohstedt 2010: Ch. 5). In towns in northern Germany 'corn associations' were established during the crisis of 1816/17: a similar system of subscriptions was used to purchase grain abroad which

was then distributed in the form of subsidized bread to the members (Webb 2001). In the late nineteenth century, charitable organizations of this type also emerged in colonial settings, for instance in India (Brewis 2010). In this volume we find them around that same time in countries as far apart as China and Poland (Chapter 12), and in the twentieth and twenty-first centuries, in the shape of international NGOs, in Africa (Chapter 11).

4. Some general patterns

The chapters in this volume show that societal resilience to famine could take a great variety of forms and shapes. However, they also bring to light similarities and wider patterns. Here, we restrict our discussion of these patterns to four main elements. The first of these concerns the changing intensity and character of famines. Following Dando (1980), historical famines may be subdivided into five groups characterized by their main cause: physical, transportation, overpopulation, cultural, and political famines (see Chapter 2 for a more detailed explanation). Famines of each of these types were solved predominantly, although not exclusively, by one of the three coordination mechanisms: by the government (overpopulation famines; see Chapter 2), by the market (transportation famines), or by civil society (physical famines). According to Ravallion (1997), a similar classification of famines may hold today, even though both the intensity and character of famines has changed (see also Von Braun et al. 1998). In terms of intensity, famine-related mortality has diminished quite considerably, due mostly to higher incomes and better health care (Ó Gráda 2007b: 9–10). In terms of character, famines are less caused by climatic vulnerabilities and more by (a lack of) political will. Indeed, Chapter 10 shows a shift in both China and Russia from overpopulation famines caused by using marginal lands to political famines.

This brings us to the second pattern: the change in character of famine, even if the type of solution remained the same, also implied a shift in the relative weight and the interaction of the contributions of state, market and civil society to famine resilience. Historically, market performance, although it clearly varied between regions, can be shown to have increased from ancient times to the present, initially mostly in the western world but from the nineteenth century onwards also in other parts of the world (Van der Spek et al. 2014). Combined with higher per capita income, this has led researchers to conclude that famines today are largely avoidable (e.g. Devereux 2006). Although the conclusion that the contribution of markets to famine resilience increased over time in tandem with market performance is not new (Persson 1999; Alfani and Ó Gráda 2017), it is reassuring to find that this volume on the whole confirms it. The development of the role of the state and of civil society is not as straightforward: in all periods discussed in this volume we find states intervening in food supply. Obviously, much depended on state power.

It is here that the interaction of the three mechanisms comes in. In theory, three possibilities can be distinguished: substitution, complementarity and interdependence. In the case of substitution, one coordination mechanism completely

takes over from the other one or two: this happens only rarely. Complementarity is much more common: when one of the three mechanisms is weak, another assumes a greater role in coping with famine. This volume provides several instances of complementarity. State and civil society in particular to a certain extent appear to be complementary. The comparison between four empires in antiquity in Chapter 2 finds that in all four, one of the two dominated while the other was less important. Shifts over time also suggest complementarity: in China famine relief was usually dominated by the state, but at times when the state faced budgetary constraints or was otherwise weakened, civil society initiatives gained greater weight (Chapter 12). Finally, we also see cases characterized by interdependence: if one coordination mechanism gains strength, the others may adapt but their role is not reduced. In many cases this involves the combination of state and market. To follow up on the case of China: the originally non-market-based famine relief system of the state granaries became infused with market-oriented mechanisms once in the nineteenth century the market started to develop. The ideal of 'nourishing the people' did not disappear, but instead of in grain, reserves were held in cash. It was apparently assumed that that money would buy grain when necessary. Likewise, in colonial Indonesia the government learnt, over time, how to handle the grain market. Gradually policies were developed that stimulated competition but kept excesses in check (Chapter 8). Interdependence also implies that flaws in one mechanism can potentially disturb the functioning of another one. The chapter on contemporary Africa (Chapter 11) provides examples, such as markets that fail to relieve needs because of misplaced state policies or NGO actions.

The third issue that deserves attention is linked to the definition of societal resilience given earlier: the capacity of societies for absorption, adaptation or transformation in reaction to drops in food supply while at the same time limiting suffering and destruction. Absorption, adaptation and transformation are all in evidence in this volume but while the cases of absorption and adaptation are usually indeed accompanied by mitigation of the consequences of the shock, this is not the case for transformation. A clear example of absorption is provided by the response to the potato famine of the 1840s in Flanders, at least in those regions where households were shielded from the shock by a combination of secure access to land and inclusive mechanisms for redistribution, formal or informal (Chapter 7). Adaptation is also in evidence in the chapter on Ottoman Anatolia (Chapter 4), where its effects on coping capacity are assessed positively: while peasants had sufficient freedom to adapt to ecological change by switching to other crops, they were better able to cope with famine than when their agency was limited by state intervention. As of today, we can recognize absorption in the growing list of avoided famines due to global food and technical aid (Devereux 2001b). The most prominent case of transformation in this volume is no doubt presented in the chapter on Russia and China (Chapter 10), two countries that both experienced famine during their 'times of trouble' in the late nineteenth and early twentieth century; in both, this resulted in revolutions that gave rise to even more terrible famines. China and Russia, admittedly, are extreme cases. In general, however, the disruption that

accompanies major societal transformations is not likely to be conducive to the alleviation of suffering, at least not in the short run.

The fourth and last element concerns the importance of the three coordination mechanisms of market, state and civil society for societal resilience versus the agency of individuals and households. Whether or not individuals are able to cope by themselves during famines is a subject of debate, demonstrated most clearly, perhaps, for the topic of migration. In Chapter 13 it is argued that migration in reaction to famine is by no means only a last resort of desperate people. There is a great deal of agency of the 'victims' involved in it: migration is a coping strategy of individuals and households. However, whether it takes place, and if so how, is affected by institutions that are part and parcel of the three societal coordination mechanisms. States may restrict the options for migration (Chapter 2), even by force, or encourage it; existing networks of people with a similar background can help migrants to travel, settle and find work; and the market – in this case especially the labour market – plays a major part in the decision to migrate in the first place and subsequently also in the contribution of migration to relieving hunger. The same is true for other individual coping strategies (see e.g. Jodha 1981). In other words: the focus on coordination mechanisms central in this volume does not deny the role of individual coping strategies; rather, it provides the background against which they should be understood, as ultimately each coordination mechanism is the sum of the actions of individuals.

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