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# **From the resilience of commons to resilience through commons. The peasant way of buffering shocks and crises**

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We investigate if and how commons helped peasant societies when confronted with uncertainty, shocks, and crises in this special issue. Peasants have been defined as primarily small-scale agricultural producers who control the means of production and who use these means directly to provide for their own subsistence. Their activities were often integrated into the (commodity) market economy, but not dependent on (factor) markets.<sup>1</sup> If the (large) majority of households can be conceived as peasants, we can speak of peasant societies. For a long time, peasant societies were conceived as antagonistic to capitalism: the commercial farmer would eventually replace the peasant. However, from a world-historical perspective, peasant societies were not simply replaced by capitalist farming systems; they were gradually integrated in a globalised capitalist economy.<sup>2</sup> As a result, even today a large part of the global population still qualifies as ‘peasants’.

Even though the definition is quite clear, the persistence of peasant communities throughout the ages remains enigmatic. When exposed to extreme events, crises and shocks, peasants have been portrayed as both extremely vulnerable as well as highly resilient. In *Poverty and Famines*, Amartya Sen showed that peasant farmers were among the worst hit in the different famines under consideration.<sup>3</sup> Yet according to Vander Ploeg, the very fact that some of the most hazardous regions in the world are dominated by peasants also indicates that they have the capacity to cope with shocks and hazards, while more commercial enterprises are pushed out.<sup>4</sup> Rosset et al. give the example of Cuba, where peasant smallholders practicing agroecological farming and mutually cooperating bounced back much faster than large private or state-owned holdings after a hurricane, losing less of their harvest.<sup>5</sup>

These different outcomes are for a large part the result of the existence of a wide variety of peasant societies. While peasants are sometimes the dominant group, in other occasions they are just a tiny minority in a society dominated by other interest groups. In some regions, peasants are quite egalitarian, autonomous and rely on collective action and property, while other peasant communities do not have these characteristics. The list of possible situations and divergent institutional choices is long. As a result, it is difficult to predict the level of resilience or vulnerability of the peasantry as an overarching group to shocks and hazards.

## **1. Commons and resilience**

Commons are a distinctive feature of many peasant societies, but not all peasant societies enjoyed access rights to common land or resources. And vice versa, commons – or more generally, institutions for collective action – can function in many different societal and environmental configurations, from nomadic pastoralists and commercial farmers to urban religious communities. Moreover, the nature and organisation of common access and use rights were highly variable. In

scholarly debate, access to communal resources, such as land, timber, fisheries, irrigation infrastructure, or capital, is sometimes singled out as pivotal in peasant communities' and peasant households' resilience. Access to commons might decrease their vulnerability to a wide range of hazards and shocks. Communal rights in forests and coppice woodlands might have helped poor households to overcome price spikes on the market for wood and fuel, which became increasingly frequent in the eighteenth century.<sup>6</sup> Peasant communities in Geradadda, on the boundary between the influence spheres of Venice and Milan, strategically and commercially used their communal assets such as land, mills, and canals to mitigate the shock of the French-Italian wars at the end of the fifteenth and the beginning of the sixteenth centuries.<sup>7</sup> In Ottoman Egypt, the communal organisation of the irrigation and drainage of the Nile Delta proved more capable of protecting the region against environmental hazards such as salinisation, land losses, siltation of the irrigation network and evaporation of water than the more centralised management which replaced it in the early nineteenth century.<sup>8</sup>

The examples above might suggest that commons are indeed the 'secret' to peasant resilience, preventing hazards from turning into full-blown disasters. However, commons are highly diverse, and so are the societies in which they function. Francisco Beltran showed that not all commons had a similar, positive effect on welfare levels in nineteenth-century Spain; it depended on the institutional choices. The more inclusive and redistributive the common pool institutions were, the higher the welfare gains for all groups within the communities.<sup>9</sup> The same applies to the impact on resilience and vulnerability. Why exactly would commons increase peasant resilience? In the case of Ottoman Egypt, the reliance of the communal water management on local labour and local knowledge might have given the communal organisation a comparative advantage. Still, in other cases, the pooling of resources and capital, the spreading of risk, or the mutual solidarity might have been the characteristics of the commons which increased resilience.

Over the past decades, research on the development and resilience of commons in past and present has expanded vastly – mainly thanks to the institutional analysis of the commons spurred by the work of Elinor Ostrom.<sup>10</sup> Far from being doomed to pave the road to overexploitation and demise – as Hardin presumed in his 1968 article on the Tragedy of the Commons – commons might be very resilient: they often persisted for centuries and can adapt to changing external conditions and economic or political crises and transitions. For Ostrom, the resilience of the commons was intimately linked to the quality, acceptance and enforceability of its 'design rules': a clear definition of access and use rights, the involvement of users in the decisionmaking process, well-developed monitoring and sanctioning of trespassing and recognition by external authorities were fundamental. According to De Moor, the 'secret' of a well-functioning and resilient common lies above all in adaptability: the rapid detection and remediation of problems, which is facilitated by the fact that those dependent on the resource are also those who can alter the rules.<sup>11</sup>

While the resilience of commons has been widely debated in the literature, considerably less research has been devoted to the question of whether commons also increased resilience to extreme events and climatic variability, and if so, in what way, and in which conditions. In the twentieth-first century, the question is more relevant than ever before. Natural variability and especially extreme climatic events – whether rainfall, drought, heat or storms – are undoubtedly increasing. Especially in the Global South, where the urgency of securing food provisioning in times of climate change is more rapidly felt, there is an increased interest in whether commons will lower vulnerability. Should we protect, restore or reintroduce common land rights to facilitate the adaptation to climate change?<sup>12</sup> Comparative historical research can improve our understanding of the mechanisms and conditions linking commons to peasant resilience.

## 2. The vulnerability and resilience of peasants

Before assessing peasant societies' vulnerability and resilience in the past and present, it is crucial to define vulnerability and resilience. Vulnerability is defined as the level of exposure of groups of people or individuals to stress, hazards or shocks. In the vulnerability approach the main question revolves around the issue of victims, and how and why they were exposed to risk. On the other hand, resilience was initially defined as 'the capacity of a system to absorb disturbance and re-organise while undergoing change so as to retain the same function, structure, identity and feedback'.<sup>13</sup> More recent literature on resilience tends to focus less on the stability and return to the former state after a shock than on adapting and transforming to cope with the new circumstances: resilience as adaptative capacity, both of societies and of people.<sup>14</sup>

Some features typical for peasant societies – localised resources, lack of capital, lack of coordination on a supra-local level, institutional and technological pathdependency – might increase vulnerability and hamper resilience. Quite paradoxically, most catastrophic famines in history would see peasant populations flock to cities, because only in cities, would grain stocks, access to interregional supports and food aid become available.<sup>15</sup> But whether the root causes of this peasant vulnerability were related to the nature of peasant smallholding, or instead to the disruption of the peasant livelihoods by exogenous factors such as climate, political subordination, or the behaviour of international food markets, is, of course, another question. In this issue, De Keyzer and Van Onacker argue that a lack of capital, technology and power does not necessarily lead to heightened vulnerability. On the contrary: peasant communities sometimes proved more resilient than more affluent, technologically more advanced neighbouring regions. At the same time, peasant communities could change from being highly resilient towards highly vulnerable. And as Haller and Cottyn, Beeckaert and Vanhaute argue in this issue, this increased vulnerability is often linked to the fate of the commons on which these peasant communities depended. Hence, the question is: can we open the 'black box' of the commons and unravel the mechanisms through which commons generated resilience?

3. How did commons boost the resilience of peasant communities? Only a minority of commons were explicitly designed to manage risks and hazards. The rise of fraternities and communal poor relief in post-Black Death Europe has been linked to less favourable environmental conditions, imperfect and variable market conditions, combined with a growing demand for security and solidarity.<sup>16</sup> In most cases, commons were not explicitly designed to manage environmental hazards. At best, they tried to prevent them by limiting environmental degradation and ensuring continued use of the resource. As a result, commons were not inherently successful in avoiding hazards. As Cottyn, Beeckaert and Vanhaute argue in their contribution to this special issue, communal land rights should not be considered an institutional fix, invariably leading to resilient resource use.<sup>17</sup> Examples of overexploitation of communal land are more common than the literature suggests. In the sandy marken in the east of the Netherlands, existing collective arrangements were unable to prevent progressive degradation of woodlands and increased sand drifts in the sixteenth and seventeenth centuries.<sup>18</sup> In the English Brecklands, the manorial common pool institutions were also unsuccessful in preventing sand drifts in the same period. Both regions, however, had very different common pool institutions. In the Netherlands, the commons were rather inclusive and dominated by

middling groups, while in the Brecklands the commons had become very exclusive and utilised by commercial elites.<sup>19</sup> Nevertheless, the list of successful commons is long as well. From the Alpine pastures studied by Netting and Ostrom, to the premodern Campine heathlands and the modern Zambian fish ponds, and the East-European communal coppice wood forests, common property and collective action can be sustainable and durable over time.<sup>20</sup> But the root causes of that success are seldom made explicit.<sup>21</sup> If commons were indeed successful in preventing hazards from turning into disasters this is often related to a combination of the following characteristics.

### 3.1 Risk avoidance

In traditional agriculture, harvest fluctuations were both dangerous and hard to prevent. Peasants had only a few options available to mitigate the risk of such fluctuations: maximum diversification of crops, adapting communal strategies such as the spreading of plots throughout the village and the collective use of resources. Protecting the community members from the worst effects of extreme weather was the overriding goal of the open field system of medieval Europe, in which a typical peasant 'would hold his 20 acres in 20 plots scattered across the face of a village the size of Central Park'.<sup>22</sup> Similar open field-type strategies existed outside Europe as well. Greg Bankoff described similar field systems in the Philippines, for example.<sup>23</sup> Besides, peasant communities often refused to specialise and become dependent on one product's harvest or commercial opportunities. In their contribution, De Keyser and Van Onacker show that the Campine peasants deliberately combined a wide range of agricultural products and commercial activities to avoid the worst effects of both economic as well as environmental shocks.

### 3.2 Ghost acres

By far the most powerful collective arrangements in traditional agriculture can be found in the management of common 'waste'. This could be woodland, heathland dry pastures, deserts, marshlands or rocky mountain tops. One could even stretch the concept and include ponds, rivers, and all kinds of water that were mainly exploited collectively. From a small – but significant – complement to a more intensively exploited infield, their importance varied widely according to the largest share of the territory, as was often the case in areas less suited for settled agriculture. These common wastes provided 'ghost acres' to the peasant household, compensating low or volatile produce on the 'private' plot. Common wastes were often indispensable for animal breeding, as they allowed for the pasture of cattle, pigs and sheep during part of the year.<sup>24</sup> In this special issue, Tobias Haller shows the importance of pasture land and collective grazing rights for different types of peasant communities. They added significantly to the income of households, while also providing buffer capacity in times of crisis. Neeson claimed that the possession of just a single cow could make the difference between being an independent peasant household or slipping into a proletarianised state.<sup>25</sup> Having access to 'free' common waste lands made it easier for peasants to hold on to their vital stake in ownership of cattle. In itself, mixed farming provided an important buffer against natural variability, as crop failures could be compensated through animal husbandry and vice versa. But the common wastes also offered more direct support in times of harvest failure. Major harvest failures – such as the Great Famine of 1315–1317 – often caused universal drops in cereal yields

without clear spatial patterns. Hence, they did not differentiate regions with ample common waste or common fields from regions where they were absent.<sup>26</sup> However, access to common land might have supplemented and, to a certain extent, compensated the falling income from grain cultivation in certain years. Comparing the impact of the 1840s' potato famine in different parts of Belgium, Vanhaute and Beeckaert found clear evidence that regions with strong common land rights – the Ardennes region, and to a lesser extent the Campine area – fared significantly better than those regions where such common rights had already disappeared, resulting in lower mortality rates and lower demand for poor relief.<sup>27</sup> Such comparisons of areas with and without commons in times of harvest failure remain scarce, however.<sup>28</sup>

### 3.3 Safeguarding a minimum production

Risk avoidance might have come at a cost, as part of the potential gains of specialisation were sacrificed to guarantee a minimum output. In this view, the enclosure of common fields and wastelands and their transformation to consolidated holdings would automatically raise productivity and risk, if not compensated by alternative insurance strategies (such as grain storage or private savings). Whether this was indeed the case remains one of the most fiercely debated issues in agricultural history: enclosure certainly increased labour productivity, but not necessarily land productivity.<sup>29</sup> Peasant agriculture often realised higher output per surface area of land, mainly thanks to a higher labour input, but possibly also through more intensive manuring. For fourteenth century Oakington in Cambridgeshire, Sapoznik estimated that peasant output per arable acre was 21 to 81 per cent higher than the output on the manor's demesne land.<sup>30</sup> This was still the case in mid-twentieth century India, where a large-scale survey of agriculture shortly after independence indicated that in almost every region, the gross output per hectare decreased with the holding size. The reason was 'excessive' labour input: if labour inputs would be calculated at market wage rates, half of the holdings would be permanently running at a deficit – an interpretation fiercely criticised by Amartya Sen in one of his first articles, arguing that 'profit and loss' calculations were a fundamental misunderstanding of the logic of peasant agriculture, which aimed at maximising income irrespective of the marginal cost of labour inputs.<sup>31</sup> Peasants' aim of maximising income should be nuanced, however. As Tobias Haller argues in his contribution to this volume, peasants often pursued a 'minimax' strategy: maximising minimal returns or minimising maximum loss.<sup>32</sup>

### 3.4 Flexibility/adaptability

Climatic variability did not start with anthropogenic climatic change: many parts of the world already suffered cyclical variability of climatic conditions, such as an alternation of dry and wet spells, interlaced with episodes of extreme drought or rainfall. Common land and resources were often instrumental in the adaptation of peasant societies to changing conditions. More than private land, resource extraction on common land could easily shift from one place to another or from one resource to another. An example from the Garb region in Northwestern Morocco can illustrate this. When rainfall intensified in the 1920s, the people of the Fokra tribe fled the flooded valleys with their cattle and sheep to higher ground, as they had always done. Another tribe, the Bridget, traditionally occupied this land, and both tribes had long made arrangements allowing such

temporary migration if environmental conditions needed it. And just as the commons were instrumental in adapting to changing environmental conditions, the commons also buffered political and economic shocks.<sup>33</sup> In their contribution to this volume, Cottyn, Beeckaert, and Vanhaute see a clear link between the defence of communal land rights and a less disruptive integration of peasant communities in emerging nation states and the globalising world economy. On the Bolivian Altiplano, some indigenous communities in the nineteenth and early twentieth centuries were more successful than others in defence of their communal land rights. While the communities in the province of Carangas could avoid demographic collapse and maintain a strong bargaining position towards the central state, neighbouring regions saw significantly more privatisation and were more affected by epidemic disease.<sup>34</sup> The causal relationship between the demise of the commons and the exposure to catastrophic natural hazards hence seems two-sided: the erosion of common land rights increased the exposure to natural hazards, but the latter could also trigger the privatisation of former common land, justified by the seeming inability of the collective management to prevent the disaster from happening.<sup>35</sup> A successful defence of the commons increased both the resilience of the peasant communities against natural hazards and the ease with which they could accommodate profound economic and political changes.

### 3.5 Inclusiveness

Finally, the success of commons in coping with crises and hazards in the past might be intimately linked to their degree of social inclusiveness. While a certain sense of equity, ensuring that every full member of a given community enjoyed his or her fair 'share' of the resources, often underpinned the collective management of land and resources, not all commons were equally inclusive.<sup>36</sup> In some contexts, access to common land became a feature of well-established, middle class to elite households, as was the case for many urban commons in early modern England, which had become the 'realm' of the urban freemen, and merely served to consolidate an unequal and hierarchical distribution of power and resources.<sup>37</sup> In such contexts, the commons in question did not protect the communities against the vagaries of nature, as those who enjoyed access to the common land were seldom threatened in their subsistence by a harvest failure, flood or epizootic. Such examples are restricted, not limited to urban contexts: in the rural world too, examples of highly restrictive access to commons can be found. Leigh Shaw-Taylor discovered that in the centre of England during the eighteenth century common right dwellings were overwhelmingly owned by wealthy individuals, institutions and farmers, rather than by poor cottagers or labourers.<sup>38</sup> As De Keyzer and Van Onacker argue in their paper, the degree of inclusiveness of the common shapes its contribution to resilience, as they provided resources to those in need in times of crisis. In relatively egalitarian peasant societies, commons tended to be more socially inclusive. It was easier to prevent a minority of stakeholders from bending the common to serve its private interests and overexploit the land.<sup>39</sup>

## 4. Common knowledge revisited?

By juxtaposing the three articles in this special issue, some interesting new findings come into focus. All the articles meticulously compare different case studies, regions and calamities in order to investigate the root causes of peasant vulnerability or resilience, with specific emphasis on the role

of commons. By combining the articles together, yet another layer of comparison becomes possible. Even though the case studies look at peasant societies in different periods and regions, their comparison reveals some new or even revisionist perspectives on the role and evolution of commons.

First of all, the impact of commons on the resilience of peasant societies can be highly variable because there is no such thing as 'a' typical peasant society. Different institutional blueprints of the peasant communities themselves, but also the relationships between different interest groups within and beyond the peasant community determine the level of vulnerability or resilience. On the one end of the spectrum, peasant communities that were confronted by forceful enclosures, harsh market forces and competition or political marginalisation often proved highly vulnerable. Communities that were relatively autonomous and had reasonable bargaining power could develop robust solidarity mechanisms and protect their commons, which in turn proved crucial in withstanding shocks and periods of uncertainty. One general trend, however, does stand out. By the nineteenth and the beginning of the twentieth centuries, peasants across the globe were confronted by exogenous pressures limiting their political and economic autonomy, and threatening the viability of their commons.

And that brings us to a second observation: peasant communities were not passive actors, reacting to external forces and exogenous threats. During episodes of significant institutional or economic change, peasant communities were often able to alter their strategies, restructure their institutions and adapt to the changed circumstances to maintain both their way of life and resilience towards exogenous shocks. Haller shows that even despite the transformation from communal lands into public property, the local peasant communities did not cease their communal practices. Similarly, foot-dragging or even the outright refusal to enclose and privatise commons in the Ardennes extended the commons' life span in this region by at least half a century, allowing them to cope very successfully with the potato blight in 1845–1846. Therefore, common pool institutions and peasant societies were able to persist in highly different conditions. This also shows that contemporary peasant communities are not a vanishing remnant of the past but might well be the vanguard of a future re-peasantisation of the world.

Thirdly, neither the existence of commons nor their disappearance had uniform effects on all subgroups within peasant societies. Costs and benefits were seldom allocated equally among all members of the peasant community. Commons were not, per definition, great levelers, bringing benefits to all and redistributing resources to those in need. Depending on the institutional design of the common and the social context in which it functioned, sometimes the poorest cottagers and sometimes the more affluent livestock-owning households benefitted most from the common, as is shown by Cottyn, Beeckaert and Vanhaute. In some cases, the erosion of common land rights was especially detrimental for women. Haller shows that in privatisation or enclosure attempts, often only the male inhabitants were compensated, leaving the women without any compensation for the loss of the communal resources. In eighteenth-century Western Europe, 'the resources of the commons were often all that stood between [women] and total destitution', Hunt has argued.<sup>40</sup> On the other hand, there are also contexts in which women were excluded from common land or resources or only enjoyed access through a male head of household.<sup>41</sup> In Southern Africa the longer persistence of native common lands, once heralded in a Thompsonian way as the successful resistance to proletarianisation, is now criticised as serving the interest of mining companies and advocates of Apartheid, as it kept African women in the reserves, dependent on transfers from male migrant labourers or redistributions from the common land by male chiefs.<sup>42</sup>



Finally, the relationship between peasant communities' common pool institutions and the state deserves more attention. Elinor Ostrom acknowledged in her eight design principles that higher-level authorities' recognition is of vital importance and paid attention to the fact that these institutions have to be 'nested' or integrated into overarching institutions.<sup>43</sup> Nevertheless, in academic debates concerning commons, the state and local communities are more often than not seen as opposing interest groups. This special issue shows that the connections between the state and common pool institutions can be complex. In the premodern Low Countries, the pre-modern state often protected the common pool institutions in order to curb the power of ambitious noblemen or town dwellers.<sup>44</sup> In addition, Cottyn, Beeckaert and Vanhaute show that on the Bolivian Altiplano, peasant communities cultivated a strong relationship with the government through taxation, in order to safeguard their communal structures. In contrast, pronounced environmental fragility often seems to occur in the contact zones – or frontiers as Cottyn, Beeckaert and Vanhaute label them – where peasant agriculture based on communal land rights was confronted with an expanding capitalist economy, often supported by new types of governance. Colonial or post-colonial states tried to usurp former communal lands to turn them into state property open to privatisation. As these states often lacked the infrastructure or the incentive to monitor land use properly, a de facto open-access regime was installed. Haller speaks of the 'paradox of the state' in this regard: the state being at the same time more present and more absent than before.<sup>45</sup> Such 'dismantled' commons often seem a recipe for disaster.

To sum up, this special issue shows that it is useless to search for an absolute level of resilience or vulnerability for all types of peasant societies or common pool institutions. There is too much variation to distill an all-encompassing model. However, it has become clear that the level of vulnerability or resilience is not entirely dependent on purely local and circumstantial elements. This comparative endeavour has revealed that certain peasant societies could and can be highly resilient in the face of calamities and exogenous shocks. Inclusive, flexible and redistributive commons in peasant societies with sufficient bargaining power and leverage to decide on their own rules and management of the communal resources stand out as highly resilient. In the next three articles, an analysis of peasant societies in the Low Countries, Bolivia, Morocco, Sierra Leone, and Zambia will reveal the weaknesses and strengths of peasants in coping with crises and how commons have played a vital role in their struggles.

#### Notes:

1 Peter Lionel Larson, *Conflict and compromise in the late medieval countryside: lords and peasants in Durham, 1349–1400* (London, 2006), 8.

2 Erik Vanhaute, 'The end of peasantries? Rethinking the role of peasantries in a world-historical view', *Review* 31, 1 (2008), 39–59, 43–4.

3 Amartya Sen, *Poverty and famines: an essay on entitlement and deprivation* (Oxford, 1982).

4 Jan Douwe Van der Ploeg, *The new peasantries: struggles for autonomy and sustainability in an era of empire and globalization* (Earthscan, 2009) and Jan Douwe van der Ploeg, *Peasants and the art of farming* (Winnipeg, 2014), 119–21.

- 5 P.M. Rosset et al., 'The Campesino-to-Campesino agroecology movement of ANAP in Cuba: social process methodology in the construction of sustainable peasant agriculture and food sovereignty', *Journal of Peasant Studies* 38, 1 (2011), 161–91.
- 6 Paul Warde, 'Fear of wood shortage and the reality of the Woodland in Europe, c.1450–1850', *History Workshop Journal* 62 (2006), 29–57.
- 7 Matteo Di Tullio, 'Cooperating in time of crisis: war, commons, and inequality in Renaissance Lombardy', *Economic History Review* 71, 1 (2018), 82–105.
- 8 Alan Mikhail, *Nature and empire in Ottoman Egypt: an environmental history* (Cambridge, 2011).
- 9 Francisco Beltran, 'Commons and the standard of living debate in Spain, 1860–1930' (presented at the Design and Dynamics of Institutions for Collective Action, 2012).
- 10 Elinor Ostrom, *Governing the commons. the evolution of institutions for collective action* (Cambridge, 1997). Miguel Laborda Peman and Tine De Moor, 'A tale of two commons. Some preliminary hypotheses on the long-term development of the commons in Western and Eastern Europe, 11th–19th centuries', *International Journal of the Commons* 7, 1 (2013), 7–33.
- 11 T. de Moor, *The dilemma of the commoners: understanding the use of common-pool resources in longterm perspective* (Cambridge, 2015), 158.
- 12 World Resource Institute, 'Land matters: how securing community land rights can slow climate change and accelerate the sustainable development goals' (24 January 2019), available on <https://www.wri.org/news/land-matters-how-securing-community-land-rights-can-slow-climate-change-and-accelerate>. See also Haller in this volume.
- 13 Brian Walker et al., 'Resilience, adaptability and transformability in social–ecological systems', *Ecology and Society* 9, 2 (2004), 2.
- 14 Tim Soens, 'Resilient societies, vulnerable people: coping with north sea floods before 1800', *Past & Present* 241, 1 (2018), 143–77.
- 15 Guido Alfani and Cormac Ó. Gráda, *Famine in European history* (Cambridge, 2017).
- 16 Gary Richardson, 'The prudent village: risk pooling institutions in medieval English agriculture', *The Journal of Economic History* 65, 2 (2005), 386–413.; Richard M. Smith, 'Dearth and local political responses: 1280–1325 and 1580–1596/97 compared', *Peasants and lords in the medieval English economy: essays in honour of Bruce M. S. Campbell* (Turnhout, 2015), 377–406, 400–1; Tine De Moor, 'The silent revolution: a new perspective on the emergence of commons, guilds, and other forms of corporate collective action in Western Europe', *International Review of Social History* 52, suppl. 16 (2008), 179–212.
- 17 Cottyn, Beeckaert and Vanhaute in this volume.
- 18 Jan Luiten Van Zanden, 'The paradox of the marks. The exploitation of commons in the Eastern Netherlands, 1250–1850', *Agricultural History Review* 47 (1999), 125–44.
- 19 Maïka De Keyzer, 'The impact of inequality on social vulnerability in pre-modern Breckland', *Journal for the History of Environment and Society*, 4 (2019), 71–101.
- 20 Robert Netting and Randall McGuire, 'Levelling peasants? The maintenance of equality in a Swiss Alpine Community', *American Ethnologist* 9 (1982), 273–4; Ostrom, *Governing the commons*; Maïka De Keyzer, *Inclusive commons and the sustainability of peasant communities in the Medieval Low*

Countries (London, 2018); Tobias Haller, *The contested floodplain: institutional change of the commons in the Kafue Flats, Zambia* (Lanham, 2013); Péter Szabó and Radim Hédél, 'Socio-economic demands, ecological conditions and the power of tradition: past woodland management decisions in a central European landscape', *Landscape Research* 38, 2 (2013), 243–61.

21 De Keyser, *Inclusive commons*.

22 Christopher Dyer, Erik Thoen and Tom Williamson, 'Conclusion: the rationale of open fields', *Peasants and their fields: the rationale of open-field agriculture, c. 700–1800* (Turnhout, 2018), 257–75, 270–1; Donald N. McCloskey, 'The prudent peasant: New findings on open fields', *The Journal of Economic History* 51, 2 (1991), 343–55, 344.

23 Greg Bankoff, *Cultures of disaster: society and natural hazards in the Philippines* (London, 2003).

24 Martina De Moor, Leigh Shaw-Taylor and Paul Warde, *The management of common land in North West Europe, c. 1500–1850* (Turnhout, 2002).

25 J. M. Neeson, *Commoners: common right, enclosure and social change in England, 1700–1820* (Cambridge, 1993).

26 In comparing yields on manorial demesnes, Slavin only found a significant correlation with elevation: higher situated demesnes witnessed lower yields, according to Slavin, because the driver of the harvest failure – excessive rainfall – was especially pronounced on higher-altitude sites: Philip Slavin, *Experiencing famine in fourteenth-century Britain* (Turnhout, 2019), 53–4.

27 Esther Beeckaert and Eric Vanhaute, 'Whose famine? Regional differences in vulnerability and resilience during the 1840s Potato Famine in Belgium', in Jessica Dijkman and Bas van Leeuwen ed., *An economic history of famine resilience* (Abingdon, 2019), 115–41, 131–5; see also Cottyn, Beeckaert and Vanhaute in this volume.

28 B. Van Bavel et al., *Disasters and history* (Cambridge, 2021), 91–5.

29 Michael Turner, 'English open fields and enclosures: retardation or productivity improvements', *The Journal of Economic History* 46, 3 (1986), 669–92.

30 Alexandra Sapoznik, 'The productivity of peasant agriculture: Oakington, Cambridgeshire, 1360–99', *The Economic History Review* 66, 2 (2013), 518–44, 530; for a similar assessment, based on manuring, see also Philippe H. La Poutre, 'Fertilization by manure: a manor model comparing English demesne and peasant land, c.1300', *Agricultural History Review* 65, 1 (2017), 20–48.

31 Amartya Sen, 'An aspect of Indian agriculture', *Economic Weekly* 14 (1962), 243.

32 Haller in this volume.

33 Adam Guerin, 'Disaster ecologies: land, peoples and the colonial modern in the Gharb, Morocco, 1911–1936', *Journal of the Economic and Social History of the Orient* 59, 3 (2016), 333–65.

34 Cottyn, Beeckaert and Vanhaute in this volume.

35 The epidemics which in the mid-sixteenth century killed 70 to 90 percent of the indigenous population in the Mezquital valley in Central Mexico greatly facilitated the establishment of large hacienda-type estates on former communal lands. This in turn was followed by an episode of dramatic overgrazing by a 'plague of sheep' as Melville called it: Elinor G. K. Melville, *A plague of sheep: environmental consequences of the conquest of Mexico* (Cambridge, 1994).

36 José Miguel Lana Berasain, 'From equilibrium to equity. The survival of the commons in the Ebro Basin: Navarra from the 15th to the 20th Centuries', *International Journal of the Commons* 2, 2 (2008), 162–91; Maïka De Keyzer, 'The impact of different distributions of power on access rights to the common waste lands: the Campine, Brecklands and Geest compared', *Journal of Institutional Economics* 9, 4 (2013), 517–42.

37 Henry French, "'... a great hurt to many, and of advantage to very few'" Urban common lands, civic government, and the problem of resource management in English towns, 1500–1840', in *Jahrbuch für Geschichte des ländlichen Raumes*, (St. Pölten, 2019), XVI, 51–75, 74.

38 Leigh Shaw-Taylor, 'Parliamentary enclosure and the emergence of an English agricultural proletariat', *The Journal of Economic History* 61, 3 (2001), 654.

39 De Keyzer and Van Onacker in this volume.

40 Margaret R Hunt, *Women in eighteenth-century Europe* (Pearson, 2009), 148.

41 Bina Agarwal, *A field of one's own: gender and land rights in South Asia* (Cambridge, 1994), 455.

42 Stephen Sparks, 'The peculiarities of South African history: Thompsonian social history and the limits of colonialism', *Social History* (London) 45, 4 (2020), 440–52.

43 Ostrom, *Governing the commons*.

44 Maïka De Keyzer, 'Access versus influence. Peasants in Court in the Late Medieval Low Countries', in Miriam Müller ed., *Handbook of rural life* (London, 2021), 1-25.

45 David Gongwe Mhando et al., 'Adaptation to changes in the coffee value chain and the price of coffee among coffee producers in two villages in Kilimanjaro, Tanzania', *African study Monographs* 34, 1 (2013), 27–56; Haller in this volume.