PASTORALISTS AND COVID-19: AN INTRODUCTION

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Introduction

Six years after the global outbreak of coronavirus disease 2019 (COVID-19) is a good time to look back at the literature on COVID-19 and pastoralism and assess the main themes that have been addressed.[1] From early on, it became clear that state-enforced measures to contain the spread of this novel virus had a greater impact on pastoralists, agro-pastoralists, herders and shepherds than the disease itself. In early 2020, most countries introduced harsh lockdown measures that restricted mobility and social interactions, disrupting daily life almost overnight and causing widespread anxiety and uncertainty. Measures varied over time and by location, but were strictest during the first waves in 2020 and subsequent variants of the virus (late 2020–2021). Pastoralists were particularly affected by the shutting down of borders; the introduction of quarantines, curfews and roadblocks to restrict mobility; the closure of schools, markets and places of worship and employment; and the banning of social gatherings. Negative stereotypes and sedentist policy biases followed them around (Majeed, 2022; Rodgers and Semplici, 2023).

Unsurprisingly, early scholarship on the experiences of pastoralists during the COVID-19 pandemic generally focused on the challenges, difficulties and inequalities generated or exacerbated by lockdown restrictions. Several publications have drawn patterns across multiple case studies and highlight these effects (Griffith et al., 2021; Simula et al., 2021; Duba and Hailu, 2022; Roque de Pinho et al., 2023). We use this literature here to organise and summarise the main impacts of lockdown regulations on mobility, markets, income, food security, labour, education, land, politics as well as on polycrisis situations (in bold).

Mobility of herders and shepherds with their animals in search of pastures, fodder and water, and to markets and slaughterhouses, was constrained in some countries including Kenya, Ethiopia, India and Benin (Simula et al., 2021; Bosch, 2021; Duba and Hailu, 2022; Majeed, 2022; Rajput et al., 2022; Rodgers and Semplici, 2023; Roque de Pinho et al., 2023; Martin et al., 2025/this issue). **Market** closures and disruption of (inter)national transportation and supply chains hit pastoralists hard, affecting sales of livestock and

1 COVID-19 was first detected in China in 2019 and declared a pandemic by the World Health Organization (WHO) on 11 March 2020. Three years later, on 5 May 2023, the WHO declared the pandemic over.

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livestock products and access to foodstuffs and other goods (Simula et al., 2021; Duba and Hailu, 2022; Bosch, 2021; Roque de Pinho et al., 2023; Martin et al., 2025/this issue). These impacts, together with inflation, have compromised pastoralists **income** (Duba and Hailu, 2022; Bosch, 2021; Simula et al., 2021) and **food security** (Griffith et al., 2021; Duba and Hailu, 2022; Roque de Pinho et al., 2023). More mouths had to be fed at home as schools closed and school feeding programmes stopped (Duba and Hailu, 2022), and because those who had been working or studying elsewhere returned home. The cancellation of festivals and cultural events (Sternberg et al., 2021), and the suspension of tourism and conservation initiatives (Duba and Hailu, 2022; Gargallo and Heita, 2022; Chakrabarti and Ekblom, 2023; Roque de Pinho et al., 2023) also led to loss of income. 'Stay at home' orders hampered the supply of outside workers, disrupting local **labour** relations and jeopardising (agro-)pastoral production (Simula et al., 2021; Roque de Pinho et al., 2023). Many families had limited access to digital **education**, which hindered children's learning (Gombodorj and Pető, 2022), and there were concerns about out-of-school girls' forced marriages or pregnancies (Duba and Hailu, 2022; Roque de Pinho et al., 2023). There is also evidence that **land** relations became more rigid and conflictive. Outsiders were restricted from using pastoral lands, for instance, to harvest caterpillar fungus in Tibet (Simula et al., 2021), and herder-farmer conflicts flared up (Amusan et al., 2022; Bélair et al., 2023). Fear of infection shaped these land conflicts and fed **politics** of harassment and exclusion directed at already marginalised pastoralists (Simula et al., 2021; Majeed, 2022). Finally, some pastoralists dealt with **polycrisis** situations, whereby pandemic impacts were often overshadowed by co-occurring existing and emerging crises, such as political instability and violent extremism, floods and droughts, desert locusts, *dzud* (severe winter conditions) and storms (Simula et al., 2021; Gómez Becerra and Muneri-Wangari, 2021; Kassegn and Endris, 2021; Fisktjønmo and Næss, 2022; Kronenburg García et al., 2025; Ahearn et al. 2025/this issue, 2026).

Clearly, the pandemic seriously challenged pastoralists' lives and livelihoods. In what follows, however, we choose to highlight unexpected responses and more positive experiences of the pandemic among pastoralists. Some of these had been peppered throughout the existing literature, but remained largely hidden or seemed irrelevant given the hardship of the pandemic, while others eventually became clearer as new knowledge was (co-)produced and responses to COVID-19 restrictions were better understood. For example, in southern Kenya, illegal food and livestock markets developed and livestock traders found ways to move within and across international borders (Roque de Pinho et al., 2023). In the Maasai Mara, access to pastures even expanded, with cattle invited to graze within conservation areas, contributing to a localised boom in

livestock production (Roque de Pinho et al., 2023; Chakrabarti and Ekblom, 2024). Elsewhere, in India, Mongolia, Norway, Italy and Spain, herders and shepherds, being legally protected by their status as primary food producers, were allowed to move their animals (Simula et al., 2021; Sternberg et al., 2021; Fisktjønmo and Næss, 2022; Majeed, 2022; Ahearn et al., 2025/this issue, 2026), leading to better outcomes for themselves and society (Escribano et al., this issue). In Mongolia, pastoralism was the only economic sector that grew during the pandemic (Ahearn et al., 2025/this issue, 2026).

Based on the contributions to this *Nomadic Peoples* special issue 'Pastoralists and COVID-19', and the wider literature, we identify three positive themes that the lockdowns exposed: pastoral foods, sociality and research practice. In doing so, we reflect on pastoralists' responses to the pandemic that reveal their agency and resilience, and highlight their often-unrecognised contributions to society. We argue that the pandemic made visible these key strengths of pastoralism.

Pandemic surprises

The contributions to this special issue provide analyses of COVID-19 experiences in pastoral areas of Africa (Benin, Kenya), Europe (Italy, Spain) and Mongolia. Jeannett Martin, Abigüel Elijan and Nikolaus Schareika (2025/this issue) investigated perceptions of and responses to the COVID-19 pandemic and governmental lockdown measures among pastoralists in northern Benin, to probe how their strategies to deal with uncertainty played out during the pandemic. Nurit Hashimshony-Yaffe and Sabdio Wario Galgallo explored how Gabra pastoralist women navigated and negotiated official measures in the remote community of Kalacha, northern Kenya, as seen through the eyes of the local female government chief. Also in Kenya, Joana Roque de Pinho, Angela Kronenburg García, Stanley ole Neboo, Lenaai ole Mowuo and Matinkoi ole Mowuo examined how Maasai in Narok County embraced the *olpul* (meat camp, pl. *ilpuli*) in response to COVID-19 containment measures, whereby men retreat to a secluded wooded area to eat large quantities of meat from domestic animals together with medicinal plants. Paula Escribano, Cecilia Begal and Julien-François Gerber explored whether the pandemic brought a period of respite for shepherds in Spain (Catalonia) and Italy, by examining both the challenges and opportunities brought about by lockdowns. The contribution on Mongolia by Ariell Ahearn, Gantula Munkherdene, Sainbayar Enkhbat, Akira Kamikura, Buho Hoshino, Takahiro Tomita, Chieko Hirota, Takahiro Ozaki, Troy Sternberg, Batbuyan Batjav, Moe Terao and Yuki Morinaga examined the responses of herders to governmental policies, with a focus on the flows of

people, animals and goods, and rural healthcare provision. We see three hopeful themes emerging from these contributions.

Pastoral foods

The first theme that we want to highlight is the importance, which grew during the pandemic, of pastoral foods for consumption, for health and for nourishing social relationships through sharing. This theme emerges from three of the five contributions to this special issue (Ahearn et al. 2025; Escribano et al.; Roque de Pinho et al.).

Pastoralists responded to the decreased availability and high prices of non-pastoral foods, which resulted from the closure of markets and the disruption of food supply chains, by turning to foods from their animals for nutrition. In Mongolia, where herders already relied on their own livestock products for home consumption, this was an easy transition (Gombodorj and Pető, 2022; Ahearn et al. 2025/this issue). But in Kenya, where Maasai diets have become more mixed and include non-pastoral foods that are purchased and often also produced by themselves, this was a drastic change, though eventually a welcome one (Roque de Pinho et al., this issue). Responses to the initial shock of food shortages in the Loita and Maasai Mara areas of southern Kenya – the study sites of Roque de Pinho and co-authors – included distress selling of livestock, relying on food relief and turning to milk and meat from livestock for food (Roque de Pinho et al. 2023). Meat camps, a Maasai pastoral institution, were organized *en masse*, making large quantities of meat accessible to families and neighbours as well as *kule naaoto* (sour milk) at the associated post-olpul celebrations (Roque de Pinho et al., this issue). Exceptionally good rains were a blessing; the cows were fat and healthy and there was plenty of milk for calves and people (Chakrabarti and Ekblom, 2024; Roque de Pinho et al., 2023).

In both southern Kenya and Mongolia, pastoral foods are recognised as health-promoting foods. During the pandemic, they were particularly sought after for their immunity boosting properties. Among Maasai, meat – a 'body building' food (Hedges and Kipila, 2022; Roque de Pinho et al., this issue) – is seen to work synergistically with medicinal herbs to improve immunity and physical strength. This knowledge was mobilised during the pandemic when meat camps were organised as an early response to the lockdown (Roque de Pinho et al. this issue). In Mongolia, there was growing interest in medicinal plants and in consuming 'homeland meat and food' (traditional pastoralist food), known to promote immunity and wellbeing, and particularly some livestock products like *airag* (fermented mare's milk), *aruul* (dry fermented milk

curds) and horse meat (Ahearn et al., 2025/this issue, 2026; see also Morinaga, 2026; Terao, 2026).

Finally, sharing of these healthy and nutritious foods contributed to local and urban food security. Among the Maasai, solidarity and hospitality are built into olpul norms; visitors are fed, special people are sent special cuts of meat, families sometimes hold parallel meat camps closer to home, while relatives, neighbours and friends are all welcomed at the post-olpul celebrations (Roque de Pinho et al., this issue). In Italy and Mongolia, the lockdown promoted solidarity. In Italy, shepherds sold livestock products at low prices and, after curfew, some brought milk, cheese and yoghurt to vulnerable community members without expecting payment (Escribano et al., this issue). In Mongolia, herders sent meat and aruul to their relatives in the city and some rural county governments organised large meat donations to Ulaanbaatar (Ahearn et al., 2025/this issue, 2026; Roque de Pinho et al., 2023).

Sociality

The second theme we observe is the paradoxical and unexpected surfacing of revived, sometimes intense, forms of sociality. This suggests that, in the face of governmental measures that restricted human interaction, some responded with more – not less – social connection. We understand sociality as ways of socialising and (re-)connecting (Long and Moore, 2012; Amit et al., 2015) that also includes non-humans and more-than-humans (Tsing 2013). Glimpses of intensified social relations among people *and* with domestic animals are found in all our contributions. Such sociality promoted a (re)connection with the pastoral way of life, intergenerational transmission of knowledge and the joy of herding.

Sociality at home was initially forced by lockdown measures. Closure of (boarding) schools, universities and urban employment sent children, students and workers back home, promoting a re-centering of life around the family and animals. Among northern Benin pastoralists, school closures were not a problem: schoolchildren, boarders, and students were simply reintegrated into daily work routines (Martin et al. 2025/this issue; see also Roque de Pinho et al., 2023). In Kalacha, northern Kenya, girls helped with chores and learned traditional skills like basketry and thatched-roof making, while boys looked after camels full-time. As children and youth socialised with older generations, they acquired gendered skills and knowledges that are integral to pastoral household economies and the pastoral way of life (Hashimshony-Yaffe and Wario Galgallo, this issue; Roque de Pinho et al., 2023).

Pastoralists in Mongolia (Ahearn et al., 2025/this issue, 2026; Gombodorj

and Pető, 2022; Sternberg, 2021) and Kenya (Chakrabarti and Ekblom, 2023; Roque de Pinho et al., 2023) expressed joy at parents and children, and husbands and wives, spending more time together at home. This was particularly salient in Mongolia. When children move to cities with their mothers for schooling, men remain alone to care for the animals (Ahearn, 2018). The almost two years of lockdown paused the painful practice of household splitting (Ahearn et al., 2026). More time at home also encouraged an affective reconnection with animals. In southern Kenya, Maasai men with time on their hands took on full-time herding and livestock trading, enjoying both thoroughly (Chakrabarti and Ekblom, 2023; Roque de Pinho et al., 2023; this issue). For shepherds in Italy and Spain, COVID-19 was a welcome break from burdensome bureaucracy, market competition and 'modern life', which gave them space to herd their flocks unencumbered and sometimes with the whole family (Escribano et al., this issue).

Sociality was also significant at the community level and, although forbidden, it sometimes (re)emerged with greater force than before the lockdown. This was the case of the Maasai meat camps and their posterior celebrations that made a comeback during the pandemic (Roque de Pinho et al., this issue). Community members found collective joy or 'communitas' (V. Turner, 1964; E. Turner, 2012) at these gatherings, which strengthened existing friendships, nurtured new ones, and improved community relationships across religious divides (Roque de Pinho et al., this issue). In the Maasai Mara, emotions of togetherness spilled over to other communal events such as age-group ceremonies; participation in these ceremonies was unprecedented and momentarily reconnected many of the youth with a longstanding, but declining, Maasai *rite de passage* (Roque de Pinho et al., this issue; 2023). In northern Benin, pastoralists continued attending weddings, funerals, baptisms and religious gatherings. As Martin et al. (2025/this issue) explain, attending these socially and spiritually meaningful ceremonies outweighed the fear of infection. For them, these were moments of forging and nurturing family ties, community connection and wellbeing, spiritual comfort and divine protection, that were much needed and helped them face the uncertainty created by state-imposed COVID-19 restrictions.

Research practice

The third theme we would like to foreground is of a different order. It stems from the observation that pastoralists – non-academics – became researchers and co-authors during the pandemic. This is evidenced by the contributions of Hashimshony-Yaffe and Wario Galgallo, and Roque de Pinho et al. We will

use this as a springboard to discuss how COVID-19's unique circumstances created an opening to rethink research practice with pastoralists.

COVID-19's travel restrictions prevented scholars from conducting fieldwork. Coupled with a human need for connection in times of uncertainty (see the previous section), this encouraged an online type of sociality that involved scholars and pastoralists, facilitated by increased access to smartphones and social media in pastoral regions. Pastoralist co-authors Sabdio Wario Galgallo, Stanley ole Neboo, Lenaai ole Mowuo and Matinkoi ole Mowuo had previously worked as 'research assistants' or met during fieldwork with Nurit Hashimshony-Yaffe, Joana Roque de Pinho and Angela Kronenburg García. All reconnected through WhatsApp and Zoom, at first informally, and then in the context of a working group that proposed to study the impacts and responses of COVID-19's containment measures in dryland areas.[2] The resulting online sociality was intense. Pastoralists embraced their roles as 'co-researchers'. In the early months of the lockdown, the two-way sharing of personal thoughts and experiences was a welcome, almost therapeutic, experience for academics and non-academics in the working group – all subjected to similar challenges. Allison Hahn (2020) describes a comparable experience and reflection: 'grounded' in the US by the lockdown, the mutual digital sharing of pandemic experiences with Mongolian pastoralist friends gave her a glimpse of the possibilities afforded by social media to conduct research *with* pastoralists.

Sabdio, Stanley, Lenaai and Matinkoi took on leading research roles, reporting on their families' experiences. They defined research priorities and questions, guided by a list of key research objectives, and interviewed community members. Their data included text messages, sounds, images and handwritten reports. They participated in weekly analytical Zoom discussions featuring multiple countries; and presented their findings and analytical insights at online, and later, in-person events.[3] Aware of the logistic challenges in the co-researchers' communities and their lack of formal training in research methods, Nurit, Joana and Angela gave up attempts at triangulation, sample sizes and 'perfect' data collection. They accepted that the research was messy and let go of control over the research process.

The time was ripe to act on existing calls to change research practice in pastoral areas. Pappagallo and Semplici (2020: 185) had already issued a

2 The 'COVID-19 in African, Asian and North American Drylands' working group, https://converge.colorado.edu/working-groups/covid-19-in-african-asian-and-north-american-drylands/. Annemiek Pas Schrijver (co-author of this introduction) and Apin Yasin, a Samburu pastoralist, also worked together as part of this project.

3 Among these, we highlight a Pastoralist-to-Pastoralist online discussion (Sternberg et al., 2021) and an international conference convened in the Maasai Mara in 2022 that was designed especially for the non-academic researchers to be the presenters.

pre-pandemic, prescient call for researchers who work on pastoralism to 'embed variability in our methodological infrastructure and research practices' and 'become "messy"' (Pappagallo and Semplici, 2020: 187), to address the mismatch between dominant research methods and the highly variable contexts of pastoralists. SARS-CoV-2 created an exceptional *global* 'context of high variability' and 'messiness' (Papagallo and Semplici, 2020). It accelerated the emergence of 'nomadic digital ethnography' and the co-production of ethnographic knowledge by herders and researchers (Hahn, 2020). Ultimately, the pandemic challenged researchers to enact a 'creative transformation of research practices to be more flexible, more open to differences, more wary of power imbalances' (Papagallo and Semplici 2020: 182). In this special issue, then, we agree with Hahn (2020), Kronenburg García et al. (2025) and the words of Adalima et al. (2023: 78) that the pandemic was a critical 'moment of reflection on the ability to conduct research in uncertain contexts'. No doubt, the pandemic made conducting research challenging. Nevertheless, we hope that this special issue reminds the reader of a unique window of opportunity when pastoralists were valued as researchers and co-producers of knowledge, and more egalitarian ways of researching pastoral realities seemed like a concrete possibility.[4]

Conclusion

We would like to conclude with three points. First, despite undeniable challenges and negative impacts, the COVID-19 pandemic and its suite of restrictions to mobility and sociality shone a light on key features of pastoralism that shape pastoralists' ability to navigate uncertainty and respond to crises (Krätli and Schareika, 2010; Scoones, 2024). Some of our contributions confirm that continued mobility of livestock – allowed for some, illicit for others – was crucial to withstand the economic shocks caused by the lockdown, ensuring trading and access to markets and pastures. Perhaps more surprisingly, pastoral foods and sociality played a role in the resilience of pastoralists during the lockdown. Faced with food shortages and high food prices, herders were able to fall back on livestock meat and dairy products (sometimes combined with medicinal plants) for nourishment, health and immunity . In turn, these foods were shared more widely than before, nurturing and reinforcing social relationships within communities and across the rural-urban divide, and boosting food security. The pandemic also illuminated the importance of ceremonies, gatherings and

4 This more horizontal approach (Roque de Pinho et al., 2023) has lived on in subsequent projects (see Roque de Pinho, 2024).

religious celebrations during disasters: though criminalised at the time, they continued to provide community cohesion and spiritual comfort, also sparking communitas (Matthewman and Uekusa, 2021). Through them, social ties were created and nurtured, in turn reinforcing collective solidarity mechanisms that contribute to pastoral resilience under uncertainty (Scoones and Nori, 2021).

Second, the entangled dynamics of pastoral foods and sociality, and the fact that herders fared better than other groups during the lockdown, as shown by the contributions to our special issue, led to societal revalorisation of pastoralism by both pastoralists and non-pastoralists. On the one hand, some pastoralists reconnected with their pastoral identity, while enjoying herding and caring for animals. Through the sharing of pastoral foods and reactivated pastoral institutions (e.g., meat camps and age-group ceremonies in Kenya), some (re)learned ethical values of hospitality and solidarity, which had declined with a growing individualisation of life. On the other hand, in Mongolia and Italy, herders' solidarity and generosity towards non-pastoralists, including urban dwellers, promoted a deeper appreciation for pastoralism, even if only momentarily. Finally, Kenyan pastoralists themselves contributed directly to a deeper understanding of the dynamics of pastoralism during a pandemic by directly researching these topics.

Third, the wider significance of the pandemic and the resulting societal reappraisal of pastoralism is that it created an opportunity to challenge existing power structures that have long marginalized pastoral communities. This is best shown by Escribano et al. (this issue). During the pandemic, shepherds in Italy and Spain received positive recognition from their fellow citizens, urban residents and public institutions. Pastoralists' autonomy in relation to the state increased. It was a 'period of respite' for shepherds. As the authors powerfully state, this shift was important 'in revealing the potential reversibility of the structural oppression in which [pastoralists] are embedded'. This reversal did not materialise and Italian and Spanish pastoralists quickly understood that the 'period of respite' for pastoralism was short-lived. Still, the positive dimensions of pastoralism highlighted in this special issue's contributions give us reasons to be hopeful about the future of pastoralism in the face of ongoing challenges.

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