

Pastoralism

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The study of pastoralism holds fascinations and challenges for development studies. Pastoralists have long stood out as interesting subjects of research for their perceived “otherness” from both industrial society and peasant societies, in regard to their mobility, their reliance on communal ownership of key resources, their apparent ability to live in stateless societies and to wield but simultaneously manage violence, not to mention the distant echoes of the Old Testament some have heard in their societies and cultures. These qualities have resulted in their importance in the history of social anthropology, particularly British social anthropology, as exemplified by Evans-Pritchard (1940) and Lewis (1961) among many other works, giving rise to a solid basis of knowledge on which development studies could build. To these problematics of mobility, communal tenure and the management of conflict have been added new themes of indigenous environmental knowledge, complex relations between pastoralism and environmental trends including climate change, and gender relations within pastoral societies. The very fact that pastoralists and pastoralism have been marginalised in multiple ways by governments in developing countries has contributed to the motivation of concerned scholars to better understand their societies, livelihoods, and opportunities for development. Aspects of their otherness in regard to the flexible use of resources are increasingly held up as material for new learning in an age of climate change (Scoones 2004).

On the other hand, pastoralist communities, in environmentally marginal regions and often physically remote from national capitals, moving across national borders, or located in zones of conflict, have been logistically difficult to research and sometimes unwelcoming of researchers and refractory to more

formal research methodologies. Pastoralist entanglement with the natural environment and the livestock with which they are mutually dependent requires an intense practice of interdisciplinarity with the biophysical sciences: range ecology, animal science, veterinary medicine, climate science and others.

After a brief look at definitions of pastoralism and numbers of pastoralists in the world, this article reviews some of the research questions raised by pastoralism that are specific to it as a livelihood and form of interaction with the environment - mobility, “communal” land tenure, the future of pastoralism under climate change – alongside the topic of gender inequality in pastoral societies and how it can be reduced. A range of other questions, where pastoralism casts its distinctive light on broader research themes in development studies are touched on more briefly, with some final reflections on approaches and methods for the study of pastoral development.

Definitions and numbers

Pastoralism has been defined in many ways, with various reference to the dependency of pastoralists on their livestock, to the dependence of livestock on open grazing, and to patterns of spatial movement (Devendra et al. 2005). The definitions that best capture the realities of pastoralism are fuzzy definitions, such as that recently used by FAO: “pastoralism refers to a wide family of livestock-based, livelihood and food production systems that are highly diverse but that all share a specialization in improving animals’ diets (and welfare) by managing their grazing itineraries at a variety of scales in time and space” (FAO 2021:3). But even a definition like this fails to reflect the fact that, as Baxter (1994) noted, pastoralism is not just an occupation, but a vocation, even for the many pastoralists who have fallen out of livestock-keeping, due to drought, disease or conflict, but aspire one day to return.

FAO estimates that under its definition considerably more than 180 million people are raising livestock in pastoral and agropastoral systems (Kieta *et al.* 2016). Pastoralists are most numerous, and pastoralism is most salient as a development challenge, in dryland sub-Saharan Africa, but there are also considerable populations that can be defined as pastoralists in the Middle East and North Africa, in

South, Central and Inner Asia, and in Latin America. For the most part they are associated with drylands, but pastoralists are also found in mountain and arctic environments.

Mobility and environmental rationality

Starting in the 1980s, collaboration between researchers from a range of disciplines and interdisciplinary backgrounds, largely published in two key edited volumes (Behnke et al. 1995, Scoones 1995), resulted in what became a new and much-needed consensus about pastoral mobility. Key emerging ideas about African savannas emerged from the discipline of range ecology – that they are subject to non-equilibrium ecology driven by fluctuating rainfall more than by long-term grazing pressure, that scientific concepts drawn from rangelands elsewhere in the world such as “carrying capacity” and “overgrazing” are deeply problematic in dryland Africa, and that herd mobility is a rational response to the variability of rainfall and nutrient availability in time and space. These ideas fused with, and were given practical form by, tendencies in the development-oriented social sciences that emphasized participatory methods, and the validity of indigenous knowledge and traditional institutions, which could be supported by appropriate policies. Previous stereotypes of pastoralists as motivated by obscure psychosocial wanderlusts, or as inherently prone to destructive overgrazing, were laid to rest.

The new understanding has itself evolved. While some qualifications were made on the applicability of the non-equilibrium concept, a wave of social-science research that took as its departure point the essential rationality of pastoralism and pastoralist institutions had gained its own momentum, in regions of the world well beyond Africa. The assumption of rationality has been taken even further to see pastoralists as not just living *with* uncertainty (the title of the key volume edited by Scoones (1995) but living *off* uncertainty – active practitioners of “a production system, that deliberately exploits the transient concentrations of nutrients that represent the most reliable feature of dryland environments” (Krätli and Schareika 2010). This perspective has now been incorporated into a landmark FAO report – *Pastoralism: Making variability work* (FAO 2021).

Land tenure

Herd mobility among pastoralists is widely and closely associated with various forms of non-exclusive tenure of rangelands, which are described in general terms as “communal”. As with herd mobility, there is a strong strand of research (often by the same authors and in the same volumes) which has sought to understand these forms of land tenure and advocate that they are rational and sustainable. Much of this work has taken the form of suggesting that rangelands under pastoralism can be viewed as “common property resources”, and using understandings of common property such as those derived from the work of Elinor Ostrom to refute the hypothesis that pastoral systems might be subject to Hardin’s “Tragedy of the Commons”, doomed to overgrazing as each herdowner exploits the common rangelands with a privately-owned herd. This has had crucial and beneficial policy implications in encouraging governments, and development donors, to support forms of communal range management, and discouraging them from imposing forms of individual tenure on rangelands. However, it has often been remarked that real-world pastoral systems do not correspond at all to the Ostromian model of property held in common by defined and rule-bound groups, with the group controlling livestock numbers and the duration of grazing. Real-world pastoral systems instead exhibit a mixture of rights, responsibilities, customs and preferences, relating to individuals and social groups at various scales, combined in some cases with open access, relating to different resources in the landscape, and all subject to changes over time. Pastoral land tenure “systems” are not producing tragedies of the commons, but not, it appears, because they are classic Ostromian common property systems. This argument has developed its strongest incarnation in an article by Behnke (2018) comparing the common property model with the “sovereign pastoral commons”, exemplified by African cases from pre-colonial times or from areas unreachable by the power of colonial and post-colonial states, where resource exploitation was regulated by “networks of social relations, negotiated access, and political or military competition” and the strength and continuity of the human community, not economic output, was the prime objective.

External government control and the development of markets have fractured these sovereign commons, leading to individuation of grazing rights, and increasing wealth differentiation among pastoralists.

Climate change

Pastoral areas in dryland Africa have for many decades been subject to recurrent droughts often engendering famines and the necessity of large-scale food distribution. This has led to much discussion of whether droughts are currently becoming more frequent and/or more severe with climate change, and whether they can be projected to do so in future. Social scientists have contributed to that discussion by examining the different forms of vulnerability of pastoralists, stemming not only from environmental stresses but as much or more from underlying socio-economic factors. López-i-Gelats et al. (2016) have identified six “pathways” of vulnerability resulting from the intersection of factors such as region, ecosystem and market exposure. Krätli et al. (2013) have made a twofold distinction between the strategic vulnerability which is intrinsic to pastoralism and linked to its use of environmental instability as an asset, and induced vulnerability stemming from socio-economic and policy trends such as alienation of pastoral resources, inappropriate land policies, and undermining of pastoralist culture and knowledge. Reducing these pressures could release the “unreleased potential” of pastoralism, not only to adapt to climate change but, echoing Scoones (2004), turn “environmental instability into an asset for food production”.

A different strand of discussions on pastoralism and climate change emerges from increased awareness of the responsibility of the global livestock sector for greenhouse gas emissions, a responsibility in which pastoralists as ruminant livestock keepers are sometimes, by default, assumed to share. In fact, as demonstrated by Rivera-Ferre et al. (2016), measurement of greenhouse gas emissions from livestock is heavily dependent on metrics, assumptions and baselines, and must distinguish more carefully between the very varying livestock production systems across the world. Houzer and Scoones (2021) take this analysis further with specific regard to pastoralism, drawing attention to factors such as the counterfactual methane emissions from rangelands without pastoral livestock, and the opportunity costs of not producing food from areas where crop production is impossible.

Gender

The research which has generated radically new insights into pastoral herd mobility and land tenure, and allowed a more nuanced discussion of pastoralism and climate change, has tended to focus on community- and household-level factors and assume the homogeneity of households as decision-making units. Research into gender among pastoralists has been comparatively less developed, even though many pastoralist societies are seen as heavily male-dominated in their institutions and traditions, and pastoralist women are doubly disadvantaged in access to education, health care, and economic opportunities outside pastoralism. A landmark study from an advocacy organisation (Kipuri and Ridgewell 2008), for East Africa, framed the situation of pastoralists women as a “double bind” where they suffer both from exclusion from property rights and decision-making within pastoral societies and from the more generic marginalisation of pastoralists by governments. Nelson *et al.* (2015) review the situation of dryland women globally, including but not limited to pastoralist women, in terms of land rights, governance and resilience: in the case of governance a tripartite schema of women’s empowerment through representation, recognition of women’s rights, and redistribution of resources is used. Opportunities are identified, which can be seen as bringing a new gender-specific inflection to the themes of defence of pastoralist rationality, knowledge and institutions established in previous research. Livingstone and Ruhindi (2013) surveying the impacts of women of livelihood diversification, autonomous and aid-assisted, among pastoralists, take a different line in linking their topic to fundamental changes in pastoralism and the potential benefits (though also the costs) to women of adopting radically new economic strategies, such as in small towns. All these discussions begin to raise, though very implicitly, the question of how far the agendas of social-scientific research on pastoralism, around defending pastoralism against neglect or worse by governments, need to be modified to address gender inequalities and ways to overcome them.

The above discussions only outline some of the many questions on which development studies – seen primarily as social-scientific research on development, but necessarily linked in interdisciplinarity with

natural-scientific approaches – has contributed to an understanding of pastoralism and the possibilities for the further development of pastoralism. Just taking the example of one multi-authored volume on African pastoralism (Catley et al. 2013), a range of other topics and questions are also treated: increasing socio-economic differentiation, the development engagement of multinational and indigenous companies, pastoral conflict, livelihood diversification, social protection, and the role of livestock and milk markets (for which see also McPeak and Little 2006). The study of the interrelations and overlaps between development and humanitarian assistance is another question posed with great urgency in some pastoralist areas (Alinovi et al. 2008).

In terms of research approaches too, the field is diverse. Much of the work highlighted above draws deeply from the natural sciences both empirically and through engagement with emerging concepts in ecology, but much is free-standing social science research. Much important research is funded by development donors, comes from close involvement with the activities of NGOs, or seeks to influence policy-makers, while other work is funded in more academically conventional ways. Many theoretical approaches are drawn on, including institutional economics, property rights economics, collective action theory, feminist analysis and Foucauldian governmentality, as well as a concern with the co-production of knowledge between researchers and pastoralists.

In terms of methodologies, it can be notoriously difficult to collect quantitative information from pastoralists, but important insights into pastoralist risk management in East Africa have been derived from large-sample structured data collection across multiple locations, in an interdisciplinary combination with historical, ethnographic, and participatory methods (McPeak et al. 2011). Social anthropology and in-depth qualitative fieldwork (with an increased emphasis on documenting knowledge of and entanglement with the natural environment) continue to be crucial ingredients in the methodological mix, well-suited to exploring pastoralist life-worlds, their sometimes startling differences from those of industrial societies, and their local expressions of global experiences of change.

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