Science, politics, and wildlife policy: Exclusionary conservation in Karera, India

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1. Introduction

In June 2022, the Government of India upheld a proposal to de-notify the nearly five thousand-acre Great Indian Bustard Sanctuary in Karera in the state of Madhya Pradesh (National Board for Wild Life, Government of India, 2022). The decision followed decades of agitation by locals, who had lost their customary land rights when inhabited areas were included within the sanctuary boundaries demarcated in 1981. These conflicts were escalated by complex socio-ecological feedbacks, which, ironically, led to the ultimate extinction of the bustard in the region (Rahmani, 2003; Dutta et al., 2011).

Such exclusionary conservation policies are common in former European colonies. The case of Karera, in particular, is symptomatic of an understanding of 'scientific' conservation that became dominant internationally from the mid-20th century. Behind its seeming objectivity, this interpretation of science is rooted in its colonial history. In 1970s India, this discourse took a nationalistic, anti-imperial, while simultaneously technocratic and authoritarian turn, of which Karera was a product (MacKenzie, 1997; Rangarajan, 2009).

In this essay, I briefly explore the following questions: How does the historical and political context influence the relationship between conservation science and policy? Further, what implications does the perception of 'objectivity' of science have for conservation and social justice? I answer these questions using the case study of Karera, focusing on the specific context of India in the 1970s and the wildlife legislation that came about in this era.

2. Literature review

Decolonial literature has examined how hegemonic colonial views of 'nature' have historically oscillated between nature as mere resource and 'pristine nature' to be protected from exploitation. This dualist understanding of the human–nature divide has shaped the perception of conservation science as purely natural and objective. In contrast, pastoralist communities worldwide have often had multi-faceted relationships with nature, where resource use is not in conflict with resource sustenance (MacKenzie, 1997; Randeria, 2007; Shanker, 2015).

In the Indian context, Gadgil and Guha (1993) have highlighted how the accepted 'science' of any age has been used to justify the destruction and authoritarian control of ecosystems, such as converting mixed forests into commercial monocultures in colonial times (ibid.). Discourses around environmental protection are also shaped by ideology, and elite authoritarian versions of environmentalism are partly justified through claims to science (Gadgil & Guha, 1995, Chapter 4). Globally, decolonial scholars within ecological economics have analysed the role of the historical context of colonialism in shaping exclusionary conservation policy (Davis & Todd, 2017; Sultana, 2022).

The human–nature dualism, historically manifested in the logic of enclosing commons, persists in neoliberal conservation policy, such as in the concept of 'protected areas' (Randeria, 2007: 14–17). Since the 1980s, a growing body of empirical evidence on common-pool resource management has challenged this reasoning within economics (Agrawal, 2003). Complex systems research has unravelled the complex feedbacks between nature and society, evident in bottom-up emergent sustainable practices in indigenous communities. In contrast, top-down technocratic policy, in addition to its human costs, often fails to realize ecological goals by ignoring such feedbacks (Ostrom, 2009).

3. Hegemonic science and post-colonial conservation

In South Asia, as in other parts of the world, colonial forest policy adopted the twin strategy of exploitation and exclusion. On the one hand, vast tracts of mixed forests were converted into monocultures of commercially valuable plants such as teak and sal, and hunting of big game by colonial officers and the rulers of princely states pushed many species close to extinction. On the other hand, the rights of local communities to gather produce and live in forest land were heavily restricted (Gadgil & Guha, 1995; Joshi et al., 2018; MacKenzie, 1997).

In the mid-20th century, increasing concern about natural resource depletion led to the establishment of organizations such as the International Union for the Conservation of Nature (IUCN). Steeped in a colonial legacy, the dominant voices in these organizations retained a dualist view of antagonistic society–nature relationships and sought to control natural resource governance in the global South (MacKenzie, 1997, Chapter 8–10; Shanker, 2015, Chapter 1). Their policy prescriptions are primarily science-oriented, where 'science' is understood as being universal, objective, and natural. For instance, the IUCN's homogenizing concept of protected areas to restrict human occupation and resource use deprioritizes local socio-cultural realities. Thus, the 'social' becomes secondary to what is deemed natural as science becomes prescriptive and policy technocrat-driven (Randeria, 2007: 14–17).

In 1970s India, this global discourse collided with the authoritarianism of Prime Minister Indira Gandhi's first government. Rangarajan (2009) has analysed how the food shortage of the 1960s and India's straining relations with the US shaped 'environmental patriotism' as a nationalistic mission that complemented the technological self-sufficiency of the Green Revolution. Wildlife policy was heavily influenced by elite conservationists close to the Prime Minister, such as Kailash Sankhala and Salim Ali. Authoritarian government control of the environment became part of the socialist, anti-American narrative of the 70s (Rangarajan, 2009: 304–307).

The Indian Wild Life (Protection) Act (IWLPA), 1972, was born out of this political atmosphere. The original IWLPA relied heavily on protected areas and contained little acknowledgement of community rights (Indian Wild Life (Protection) Act 1972). This made it a weapon of oppression as forced displacement and brutal suppression of protests became routine in the long line of sanctuaries and national parks declared in the coming years (Rangarajan, 2009: 306).

Thus, a combination of neo-colonial conservation ideology with the domestic politics of this era generated the conditions for repressive conservation policies to take hold. In the following section, I discuss how the case of Karera was an outcome of such short-sighted policies.

4. Bustards, blackbuck, and protected areas in grassland conservation

The great Indian bustard is a grassland dweller; hence, its habitats often overlap with areas of high human activity (Rahmani, 2003: 117–120). Historically, grassland management has been fraught with ecological misunderstandings. For example, colonial foresters believed that grasslands were forests degraded through indigenous practices, fuelling attempts at 'foresting' that led to the introduction of invasive species (Joshi et al., 2018).

The 1970s and 80s saw growing public concern over species extinction in India, following the global trend. Under the IWLPA, declaring protected areas to severely restrict human occupation and resource use became the norm in conservation strategy. While the concept of protected areas has been generally criticized as being neo-colonial, it is particularly problematic in the context of grasslands that typically sustain higher human activity than forests (Rahmani, 2003; Dutta et al., 2011).

The Karera Sanctuary was declared as a protected area in 1981 under the IWLPA. An unanticipated consequence of restrictions on grazing was that the resident blackbuck population exploded due to increased fodder availability. When the blackbuck began destroying crops, the ire of villagers turned to the bustard. Meanwhile, the sanctuary land now officially belonged to the Forest Department, causing villagers to formally lose their land rights, which led to further resentment (Rahmani, 2003: 122–123; Dutta et al., 2011: 617).

Ostensibly, villagers began killing the bustards hoping for the sanctuary to be revoked. The last bustard in the region was spotted in 1994 (Rahmani, 2003: 122–123). However, the sanctuary continued to be protected while bureaucratic back-and-forth ensued between the national and state governments. The national government first proposed to de-notify the sanctuary in 2011, and over a decade on, the proposal still awaits approval from the Supreme Court (Ministry of Environment, Forest and Climate Change, Government of India, 2011). The residents of Karera, victimized by authoritarian governments, have waited decades for justice from the sluggish system that was the root of their problems.

5. Science, policy, and normativity

The case of Karera demonstrates not only the severe social fallouts of undemocratic conservation practices but also the ecological limitations of science-in-a-silo policy design. With their focus on a single species, the Forest Department failed to understand complex social-ecological feedbacks, such as between grazing livestock and the blackbuck. Thus, when local specificities are ignored, seemingly science-backed protected area strategies can prove quite unscientific, just like the ‘scientific forestry’ of Dietrich Brandis a century before Karera (Sivaramakrishnan, 1995).

Asad Rahmani, one of the key bustard researchers who worked with the Forest Department, asserts that the scientists’ original recommendations were far more nuanced and less exclusionary, such as less stringent restrictions on grazing, than those implemented in practice (Rahmani, 2003: 121). The rift between the academic scientist and the policymaker appealing to science is a topic for a separate discussion; however, it is notable that Rahmani’s critique focuses on ecological rather than social failures. While a conservationist will understandably prioritize ecological aspects, social scientists and society as a whole must ask the normative question of *why* conserve nature—conservation for its own sake or for human welfare?

This necessitates a rethinking of policy and research priorities, such as prioritizing ecosystems important for sustaining livelihoods over narrow species-specific conservation. The IWLPA 1972 has the ambiguous goal of ‘ensuring the ecological and environmental security of the country’ (Indian Wild Life (Protection) Act 1972: Short title). While later amendments incorporate community-based conservation, the Act retains an insular focus on conservation without linking it to the broader context of social wellbeing, without considering the ‘why’ (The Wild Life (Protection) Amendment Act, 2002 & 2006). In this context, it is critical to question the ideological foundation of conservation policy being mindful of historical injustices and underrepresentation of vulnerable stakeholders in policymaking bodies.

6. Conclusion

In conclusion, the case of the Karera Bustard Sanctuary demonstrates the role of historical and political circumstances in shaping claims to prescriptive science that becomes the foundation for conservation policy. It exemplifies the limitations and severe social consequences of coercive policy legitimized through claims to prescriptive science. Finally, it raises questions about the normative ends and ideological foundations of conservation policy, ultimately tying to broader issues of democracy, representation, and the role of technocrats in shaping policy.

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