

Ambivalent Allies? Environmentalism and Science in Contemporary India

Hanna Werner

Max Weber Centre for Advanced Cultural and Social Studies, University of Erfurt

Abstract: Science played a crucial role in the early days of Indian nationalism. This has not changed since India's independence. With recent political transformations, the significance of science has acquired a new dimension. Contemporary apologists of Hindu nationalism have recognized the value of appeals to science, whether they are trying to legitimize claims to supremacy or to prove that ancient Indian scriptures attest to the presence of 'modern' science at their time of writing. Such mobilizations of science oscillate between particularism and universalism, whereby calls to reject 'western' universalism as culturally specific and therefore limited live in tension with efforts to universalize 'native' achievements, thought of as always already modern.

Complicating matters, this tension cuts across fields and political camps. The appeal to science also serves the critics of Hindu nationalist aspirations, whether they challenge the 'hindutvaization' of environmentalism or seek to substantiate socioecological concerns scientifically. The problem: recourse to (allegedly universal) science not only tends to depreciate 'non-science' achievements, it also situates one's claims in a hegemonic political discourse that privileges some voices and concerns over others.

In this article, I use the example of environmentalism to decipher the ambiguous role of science as a source of legitimacy in contemporary Indian politics, where it creates both friction and unexpected alignments. To conclude, I attempt to outline a timely 'grammar of environmentalism' capable of addressing these tensions.

[environmentalism, science, cultural politics, legitimacy, Hindu nationalism, grammar]

Introduction

In the prologue to *Holy Science: The Biopolitics of Hindu Nationalism*, Banu Subramaniam writes:

This book is dedicated to the belief that we do not have to choose between binary logics. We can instead embrace science and religion, nature and culture, human and nonhuman to imagine worlds that defy imperial Western logics and nativist religious nationalisms (Subramaniam 2019:xiii).

Without a doubt, we can imagine such worlds. Indeed, we must if we are serious about the quest to decolonize modern science. But how can such an embrace be realized in a given society, in this case India, two decades into the twenty-first century? What would this entail in terms of epistemology, cultural politics, and social critique? These

questions are not new, to be sure, nor is the ‘belief’ described above. However, given the current popularity accorded to such visions, especially in anthropology, it seems worthwhile to drill a little deeper and illustrate some of the potential pitfalls involved. For science and religion are more than just world views or explanatory systems; they are contested resources for establishing political legitimacy. Using the example of environmentalism in contemporary India, I intend to show that the road to harmonious coexistence may be a little rockier than we would like it to be. Bearing in mind that it is crucial whose voice – or action – is considered legitimate for the environmental cause, I will address possible complications that arise from invoking science (faced with religion) in order to substantiate one’s concerns and position in the field.

To be clear, my hesitation is not about the welcome effort to move beyond binary approaches or to challenge established contrapositions that have too often led to unhealthy epistemological hierarchies. Likewise, I commend Subramaniam’s attempt to free mythology from its ‘oppressive genealogies’ and to harness its progressive potential for alternative visions of society (ibid. 2019:222). However, two things give me pause. The first concerns the possible scope of such visions in light of the Hindu origin stories; the second is what they connote in the current historical moment. The basic question I ask is whether (any) religion or mythology can be liberated from its historical and sociopolitical baggage and acquire a quasi-universal meaning, even for those for whom it was never part of their episteme.¹ More specifically, I wonder under what conditions this process could happen (now), and whether some stories might offer more inclusive, i.e. more universalizable, potential than others.

While the issue at stake is of global relevance, India is a particularly sensitive case after a decade of Hindu nationalist governance. And since today’s nationalists seem to have mastered the repertoire of postcolonial language perfectly, it no longer seems enough to reject binaries and feigned universalisms; it is also crucial to pay close attention to who else is doing so and to what ends, if only to avoid entering into involuntary alliances, be they rhetorical or practical. Concepts such as ‘nature’ and ‘culture’ are charged with new meanings that need to be addressed, which may require us to reconsider our own use of them. With the politicization of landscapes in contemporary India, as in exclusive claims to Hindu sacred land or rivers in the Himalayas, for example, ‘nature’ has become a contested arena of restricting belonging.² This transformation affects regional environmental mobilizations as much as environmental discourse as a whole.

Before I delve into these intricacies, I should share the following about this article: the reflections offered here are based on many years of research on environmental issues in India. My involvement with ‘the politics of dams’ (Werner 2015) has afforded me a window into one of the most contentious areas of postcolonial development debates. It has also taught me a great deal about the scope and prospects of socioecological move-

1 For a critique of Subramaniam’s account as Hindu-biased, see Shaik Ali 2022.

2 On the ‘spatial strategies of Hindutva’, see Deshpande 1995.

ments in India's contemporary political landscape. Questions of voice, identity and legitimacy in environmental conflict continue to shape my research today. This paper revolves around these key concerns, which have recurred throughout my ethnographic work, and juxtaposes them with conceptual reflections on the science-religion-environmentalism conundrum. It is a piece about a particular context at a particular historical juncture and at the same time an invitation to the reader to extend the reflections presented here to other places. Much of the literature discussed here cautions against the growing proliferation of Hindu nationalism in the environmental domain; however, the perceived 'gateways' are as diverse as the proposals for dealing with this threat. One aim of this paper is to reconsider the various academic and/or activist currents in terms of their offers for a 'grammar of environmentalism' capable of responding to the social and political challenges of the present, which I outline in the concluding part.

The paper is divided into three parts. The first part situates environmentalism, itself an ambiguous term,³ in both contemporary Indian politics and scholarly debate. Drawing on a quote from a renowned environmental activist, this section introduces the key themes of this paper, namely science in tension with (politicized) religion, and environmental justice. Section two discusses how science has been mobilized in the context of Indian nation-building up until the present government's agenda, and how this affects India's current environmental politics and constrains environmentalist discourse and practice. The third and concluding section of the paper then considers options for dealing with these constraints. Building on reflections on environmentalism's 'susceptibility' to political cooptation and 'involuntary alliances', I introduce a draft grammar of environmentalism as an ethnographic and conceptual tool geared towards a more justice-oriented environmental politics.

Situating Environmentalism

There are several aspects to consider when thinking about environmentalism in terms of political mobilization: the question of (adequate) means and methods; the problem of audibility, i.e. of obtaining a speaker's position deemed legitimate; and the question of alliances – needed, strategic, coincidental, auspicious, involuntary – that emerge in the process. In the following, I will situate these aspects in the context of contemporary environmental conflict in India, focusing in particular on the role of science and religion as argumentative figures in environmental debates. Concerned about the 'saffronization' of environmentalism in India, scholars and activists are confronted with the question of how to deal with religious or religiously framed involvement in

3 For a critique of the label 'environmental' due to its implicit reduction of 'complex socio-cultural and political struggles ... to the level of elements of the natural environment', see Kothari 2009.

environmental politics.⁴ An interview with the late environmental activist Vimal Bhai (1962–2022), a prominent figure in India’s social and environmental movements for decades (see also Sinha 2022), came to mind as I pondered Subramaniam’s quote with which I began this paper. The interview, titled *Keep Religion Out of River Movements*, concludes with the statement:

I would also like to add that movements are being directed, often misled by people of faith and religion. Take for instance the Hindu saffron brigade. During the previous regime these groups were vociferously supporting the anti-dam movement, talking of river health and the spiritual need for free-flowing rivers. Where are these people today? They are silent now that the Hindu right wing, which continues to be hand-in-glove with the hydropower lobby, is in power. I feel this is dangerous, and we need to keep communal religious groups out of save the river movements. The movement must be guided by principles of justice and sound science (Seth 2016).⁵

I read three points of interest in this quote, regarding Vimal Bhai’s use of ‘communal’, ‘justice’ and ‘sound science’ respectively. I deal with each of these in turn.

Vimal Bhai’s use of the word ‘communal’ here could be interpreted in at least two ways.⁶ On the one hand, the statement may be in line with those who advocate a clear distinction between Hindutva (literally ‘Hinduness’), or political Hinduism, and more syncretic and tolerant versions of Hindu eco-consciousness, including sacred and secular sources alike (Baviskar 1999:30; on ‘Hindu ecology’, see e.g. Chapple and Tucker 2000; Gosling 2001; Prime 1992). However, given that the statement begins with ‘movements are ... often misled by people of faith and religion’ and concludes with ‘the movement must be guided by principles of justice and sound science’, another reading suggests that religion *per se* is a potentially problematic driver of environmental movements. Clearly, the politicization of religion plays a key part in this.⁷ The issue here, in my reading, is not only that the boundaries between the concerns of environmental movements and the political agendas projected onto them are not always as

4 The color saffron is associated with notions of divinity and purity in Hinduism, but in critical approaches it has become essentially synonymous with Hindu nationalist aspirations. The neologism ‘saffronization’ refers to the efforts of the Hindu right to reshape India into a *Hindu Rashtra* or Hindu nation; see also Singh 2021.

5 Set in the context of global and nationwide struggles against the adverse ecological, social and cultural impacts of large dams and other interventions in the name of development, the debate over hydropower projects on Indian rivers takes on a particular flavor as Hindu nationalist forces enter the terrain and invest in making the preservation of ‘sacred rivers’ a religio-political affair.

6 The term ‘communal’ or ‘communalism’ has a very particular regional meaning; see e.g. Pandey 1990 on its colonial construction. Here it will suffice to define it as an identity-based attempt to construct closed and demarcated religio-ethnic communities.

7 ‘Religion’ is a deeply problematic concept in the South Asian context, being burdened with a monolithic colonial reading that the Hindu right readily embraces and conflates with its ‘cultural’ or ‘ethnic nationalism’.

straightforward as one would wish, but also that key concerns such as livelihood and distributive justice may be eclipsed by prioritizing religious (or seemingly religious) matters. This is precisely what has happened in the disputes over hydropower projects on the Ganges, to which Vimal Bhai is presumably referring. I will return to this below.

Before coming to the second point of interest in Vimal Bhai's quote, I shall add a few words about the academic responses to the problem I have just described. The last two decades have seen a number of publications that have problematized the alliance of 'green and saffron' in India (Mawdsley 2005, 2006; Nanda 2004; Sharma 2002, 2009, 2012). These contributions reflect the concern that environmental movements have been increasingly coopted by Hindu nationalists, undermining these movements at worst. This literature was preceded by publications on the neo-traditionalist bias of Indian environmental historiography and the possible proximity between 'post-colonial populism' and the political right (Nanda 2001; Sinha, Gururani, and Greenberg 1997; see also Brass 1994, 2000). Two insights offered by these accounts are crucial to consider here: first, the processual character of appropriation, which makes it difficult to predict or control. Mukul Sharma's statement about the anti-Tehri dam movement in North India illustrates this process:

... environmentalists and social-religious leaders provide cultural and imaginative representations of the Ganga and the Himalaya in varying degrees. These representations often get Hinduised and become essential parts of environmental politics and identity. ... The ecological reasoning is blurred and goes beyond logic, eliciting Hindu support, patriotism and xenophobia (Sharma 2002).⁸

The second takeaway from the literature concerns a more general problematization of 'neo-traditionalism', including its resonances in postcolonial theory. In a nutshell, the critique is that neo-traditionalist approaches are typically based on a romanticization of precolonial life and essentializing 'East-West' dichotomies that enable them to create the image of an 'authentic, traditional, indigenous, ecologically sensitive India' that is positioned against colonialism and postcolonial developmentalism alike (Mawdsley 2006:383). For obvious reasons, then, the 'susceptibility' of environmentalism to Hindu nationalist appropriation has been a topic of debate. The plea for the preservation of culture and 'tradition', the tendency toward an essentializing view of nature and the critique of modernity's discontents – themes central to many variants of environmentalism – fit neatly into their agenda.⁹ To compound matters, these issues find audiences across the political spectrum, raising the question of 'involuntary alliances'. Two decades into the twenty-first century, the possible compatibility of environmentalism

⁸ As this article goes to press, Mukul Sharma has just published a revised and updated edition of *The Green and Saffron*, showing that his earlier analyses are more relevant than ever; see Sharma 2024.

⁹ The observation that environmentalism can be compatible with right-wing politics is certainly not new and is not limited to India (for Germany, see e.g. Bramwell 1989; Olsen 2000). In terms of temporal and spatial analysis, when, how and where debate becomes political practice is crucial.

with a right-wing agenda is no longer a matter of selected groups or bad premonitions; the Indian government has long since embraced environmentalist imaginaries, if only rhetorically, and has seamlessly fused them with its political ideology.

However, one should be wary of prematurely pigeonholing movements into political corners. As many have pointed out, it is important to note the difference between the portrayal of environmental movements by academics, movement leaders and other 'spokespeople' and the perceptions and practices of the grassroots (Chandhoke 2001; Forsyth 2007; Fuchs 2000; Linkenbach 1994, 2007; Sinha, Gururani, and Greenberg 1997). This is certainly not to suggest that right-wing persuasion is exclusively a top-down affair, but such a perspective allows for questions of cooptation and the formative power of social movement literature. This perspective also illustrates the double bind of environmental activists: the task of paying attention to internal dynamics and resisting outside appropriation.

This brings me to the second point of interest in Vimal Bhai's quote: the emphasis on justice as a primary concern of environmentalism. As critics have noted, contemporary 'mainstream' (urban, middle class, upper caste) environmentalism in India lacks a social justice and solidarity orientation above all else, and they argue that it should be put center-stage (Asher 2020; D'Souza 2022). The focus on justice also points to the limitations of current versions of environmentalism. These include constraints on scope (the 'not in my backyard' or NIMBY variant), epistemology (the science-above-all option), and diversity (the culturalist approach). At their worst, these limitations result in 'ethical ignorance', discrediting, stereotyping and cooptation, respectively. This applies not only to environmentalist practice but also to discourse. Environmental mobilizations raise their concerns, but they do so within a political setting that accommodates some voices and concerns more than others. And then there are the academics and writers who add their readings, for better or worse. The purposes and directions ascribed to these movements are decisive not only for the way they are perceived, but also for their prospects. To cut to the chase, if writers confine themselves to highlighting, say, religious dimensions rather than environmental justice, it is likely that such narratives will not only shape outside (and possibly self-) perceptions of the movements, but will ultimately develop into a momentum of their own, potentially leading to biased environmental histories (see also D'Souza 2022).

The third point concerns Vimal Bhai's plea that movements should be guided by 'sound science'. What are the implications? And what distinguishes 'sound science' from 'unsound science'? The latter question is not just a matter of conceptual distinction; those whose contributions are not deemed 'sound science' have much to lose and could even be entirely excluded from the discourse. How does one respond to claims to universality when one does not share the same relation to the world as the claimant? How to create a basis for common discourse? The (global) challenge lies especially with world relations and knowledge bases, indigenous or otherwise, that are inspired by sources other than what has become hegemonic as 'modern science'.

Drawing on its use in political debates, I do not seek to unpack ‘science’ here but to point to its use as an abstract, unambiguous concept (opposed to whatever is portrayed ‘non-science’) that establishes hierarchies between systems of knowledge or belief. Such a generic discursive deployment of science is not unique to current political elites but was an essential part of postcolonial nationalist aspirations. As Gyan Prakash reminds us, ‘... the Indian nation-state that came into being in 1947 was deeply connected to science’s work as a metaphor, to its functioning beyond the boundaries of the laboratory as a grammar of modern power’ (Prakash 1999:7). As will be detailed below, there is a remarkable tension between the invocation of science as a universal metaphor and its often – implicit reduction to ‘applied science’ as technology and planning in the context of modern governmentality. Subramaniam (2019) has convincingly demonstrated that the governmental use of science has taken on a new dynamic in the biopolitics of Hindu nationalism.

Vimal Bhai’s call for sound science also questions the boundaries between science and religion. When and for what purpose are they conceptualized as separate or intertwined domains? Here we can take inspiration from scholars who have demonstrated their juxtaposition in practice (see e.g. Thomas 2018, 2022). Following Latour, Renny Thomas questions the binary of ‘conflict and complementarity’, the origin of which Thomas locates in ‘the West’, and he captures science and religion as ‘two different modes of existence’ (ibid. 2018:55 et passim; ibid. 2022:71 et passim). His ethnography of a laboratory in Bangalore shows how scientists live with religion and science side by side, reserving separate domains for them so that they neither conflict nor need to be reconciled. Subramaniam’s and Thomas’s accounts offer food for thought when read together. Drawing on a science and technology studies perspective, both offer individual responses to the conflation of science and religion in contemporary Hindu nationalism. While Subramaniam draws on ‘speculative fiction’ (Subramaniam 2019:40) to explore the possibility of reconciliation beyond Hindu nationalist appropriation, Thomas’s is explicitly ethnographic and emphasizes the different epistemological and value-based foundations of religion and science. Consequently, he alerts us to a political assertion of ‘co-existence’ whereby ‘the alleged natural co-existence of science and religion is used for the purpose of cultural nationalism’ (Thomas 2022:175). To trace how claims to science (and religion) operate, let us now look at how science has been mobilized within the Indian nation-state since its inception and how this affects India’s current environmental politics.

Mobilizing Science

In this context, three levels seem relevant: those of the state, of governance, and of the practice of people, here in particular of environmentalists. The first level concerns the way in which the state, as de facto and discursive hegemon, generally sets the bound-

aries of what is accepted as science, and therefore references to science tend to stabilize statist legitimacy. The role of science in the formation of the Indian nation-state is crucial here. The second level concerns the government's cooptation of science for its own agenda. When a government regularly mobilizes the entire range of disciplines from archaeology to biology to history not only to propagate but also to 'scientifically' legitimize a majoritarian cultural nationalism, as in the case of the current Indian government, this aspect takes on a particularly critical dimension.¹⁰ The third level relates to the invocation of science as part of environmentalist practice. Environmentalists themselves (must) move between the realms of science and its others – be it religion or something else. Sometimes the boundaries are clear, but often they are not. The problem, I argue, is the fact that politics is made on and with these very boundaries. In what follows, I will address each of the three levels and situate them within the context of environmental politics in India. The conclusion considers options for environmentalism within, vis-à-vis, and through the politicization of science.

To understand the current Indian government's efforts to mobilize science at various levels, 'science's association with the state' (Prakash 1999:8) must be traced back to the colonial period. The British exertion of power rested to a considerable extent on the implementation of modern scientific knowledge through institutions that '... staged science as an aspect of colonial power, and sought from Indians the recognition of Western knowledge's authority' (ibid. 1999:8). Science thus served as an amplification rather than as the source of British hegemony. Freed from the need to fulfill legitimation purposes, it could be employed for governmental ends (ibid. 1999:10). From the perspective of late colonial Indian nationalists, the embrace of modern science was an ambivalent endeavor, confronted as they were with the dual task of responding to science's claim to universality while also locating that universality within their own cultural repertoire.¹¹ As Prakash shows, religion was an important source in the attempt to hegemonize Indian culture; the quest for an 'archaic science' took off with the colonial Hindu elite, '... for it was in the representation of a scientific past that they sought to locate a Hindu universality in Hinduism' (ibid. 1999:8). As the nation concept gained importance, the '... lasting consequence was the identification of Hinduism as the cultural texture of the nation, as a national religion' (ibid. 1999:9).

For the newly independent Indian state, science, unlike for the British, played a key role in legitimizing India as an equal state within the international community. State and nation coincided for the first time, with modern science becoming a key narrative, precisely because of its claim to universal applicability and transferability. At the same time, science was used to justify and expedite interventions in the name of progress and the pursuit of modernity. Incidentally, this dual function of science also helps explain

10 For 'the making of Hindutva archaeology', see Avikunthak 2022.

11 Intended as a contribution to the social theory of science, Dhruv Raina's works offer a comprehensive 'historiography of science and modernity in India'; see Raina 2003.

why and how cultural nationalism and developmentalism go hand in hand (see also Werner 2015).

Today, the situation is different. Since independence, (applied) science as part of governmentality and (abstracted) science as a concept of legitimacy have run in parallel and even reinforced each other. But since the era of master narratives necessary to justify postcolonial state-formation is over, science is no longer needed to legitimize the state as such. In terms of the plausibility of the (new) national narrative, however, the legitimizing function of science is still crucial; the contemporary Hindu nationalist concept of the nation has been stripped of its earlier ambiguity and is characterized by a strong tendency towards centralization, i.e. it is drawn to the level of the state and transformed into a homogeneous idea of language and culture. One, if not the most important means in this respect is science – or what is conceptualized as science.

Inaugurating the ‘Centre-State Science Conclave’ in Ahmedabad on 10 September 2022, the Indian prime minister Narendra Modi, who was present only virtually, said: ‘Science is like that energy in the development of 21st century India, which has the power to accelerate the development of every region, the development of every state’. He then went on to list the country’s great scientists from the past, not failing to rank them with their European counterparts, saying, ‘when we celebrate the achievements of our scientists, science becomes part of our society, it becomes part of the culture’ (*New Indian Express* 2022). This was far from the first occasion on which Modi emphasized the importance of science. Since the current government came to power in 2014, it has been talking incessantly about how science and technology will lead India into a prosperous future. By aligning the merits of science with national progress and highlighting its significance for the country’s development, Modi joins a line of post-independence Indian statesmen who have taken a similar stand. India’s first prime minister, Jawaharlal Nehru, is known for praising the crucial role of science in India’s postcolonial development, as evidenced by numerous accounts, including his own writings.

While some aspects of the debate have remained the same, notably the linear view of progress and convergence on the means to achieve it, under the present government the claims have taken on a new tone. The understanding of what science is and does and should do for the nation (and what that nation should look like) have also changed considerably. In the new India, the origins of modern science are placed in ancient India. Shortly after taking office in 2014, Modi told his listeners at the inauguration of a private hospital in Mumbai how the epic scriptures attest to the presence of modern (medical) science at their time of writing: ‘We all read about Karna in the Mahabharata,’ he said. ‘If we think a little more, we realize that the Mahabharata says Karna was not born from his mother’s womb. This means that genetic science was present at that time. That is why Karna could be born outside his mother’s womb.’ Modi then referred to the elephant god Ganesh and said: ‘There must have been some plastic surgeon at that time who got an elephant’s head on the body of a human being and began the practice of plastic surgery’ (Rahman 2014, cited in Subramaniam 2019:5–6). Regardless of the plausibility of this particular statement, the claim that India has

always been (more) modern (than the West) has prominent historical antecedents. The quest for self-reliance according to modern, but not western, standards is expressed in Nehru's early nationalist dreams, but even more so in the rhetoric of Gandhi and his followers (Zachariah 2005:158–159). However, there is a crucial difference between current attempts to rewrite Indian history as exclusively Hindu (with a clear vision of what majoritarian Hinduism should look like) and the decolonizing efforts of the early Indian nationalists, with their ambivalent embrace of 'western science' and their formulation of an equally universal 'Hindu science' comprising various indigenous sources. As Prakash notes, the aspiration of these intellectuals '... was not nativism, but a carefully formulated proposition, arguing that the concept of science was culturally located' (Prakash 1999:228).

While the current government never tires of emphasizing how much it invests in the promotion of science (Modi 2024:vii), actual levels of investment say something else. Young scientists are often not paid sufficiently or on time, permanent positions are rare, and many posts, even in high-ranking institutions, have been vacant for years. The state not only exerts the power to define science and determine what science is considered 'sound', but also how much money is invested where, which indicators are considered relevant for producing, for instance, population statistics – in short, which knowledge bases are relied upon. But there is another issue: the fact that science is part of the political economy also has a bearing on factors such as who is appointed to scientific institutions and committees, or who is consulted as a policy advisor or 'expert' on specific topics. Commentators bemoan the prevalence of corruption and the fact that new appointments are based on political persuasion rather than scientific achievements (Menon 2022; Sundar and Fazili 2020). The remodeling of academia goes hand in hand with the concerted spread and institutionalization of a systematic historical revisionism aimed not only at rewriting India's history, but also at locating the origin of all scientific achievements in ancient India. Given the historical antecedents, it is not without irony that such politically promoted nativism is not only dressed up in a decidedly decolonial garb but is also marketed internationally. The debate over the export and promotion of yoga as part of the Hindutva enterprise is a notable example of this (Puri 2019).

Let us now turn to the third level, the role of science in environmentalist practice, both as an indispensable resource and as an ambivalent reference. In 2018, Modi was awarded the title of 'Champion of the Earth' by the UN 'for his bold environmental leadership on the global stage'.¹² There is not much evidence of this in his conduct. Just recently, the prime minister stated that environmental clearances for infrastructure projects should be issued more quickly, calling it 'a win-win situation for both the economy and ecology' and an accelerator for development (cited in Nandi 2022). The manner in which these clearances are granted has been a constant point of contention

12 See <https://www.unep.org/championsofearth/node/50>, accessed March 21, 2023.

in Indian environmental politics. Research groups, NGOs and other civil-society actors continually publish reports showing that environmental impact assessments are commonly neglected or inadequate in their approach (see e.g. Pradhan 2020). In my conversations with environmental activists and project-affected communities in the western Indian Himalayas, people often described how they were not properly consulted prior to project approval, never saw the documentation, or were left to deal with the adverse consequences of ‘development projects’ without adequate compensation. Environmentalists’ reports and documentary films paint a similar picture (see e.g. Sahu 2019). While it is not surprising that the implementation of, say, hydropower projects is based on economic and political interests that benefit only certain segments of society, it is remarkable how a rhetoric of sustainable development and common good is maintained to win acceptance of such projects in mainstream society, which thinks of itself as ‘environmentally conscious’.

However, not only are there many discrepancies between the government’s environmental rhetoric and the reality on the ground, the form that hegemonic environmentalism has taken in India today has had, and will continue to have, significant impacts on environmental mobilizations. In a recent article on *Environmental History of South Asia in the Time of Hindutva*, Rohan D’Souza argues that ‘[w]ith the grammar for environmental politics in India having ... been profoundly altered under conditions of Hindutva populism, scholars of EHSA [environmental history of South Asia]’ – and I suspect he would not mind me stretching this to other disciplines and environmental activists – will need to ‘reconsider and revisit several of the existing perspectives’ (D’Souza 2022:630). Drawing on Amita Baviskar’s work, D’Souza notes that ‘[t]he sustained engineering of mistrust and animosity between communities through the play of Hindutva ...’ has led to an ‘... erosion of social solidarity ... [that] can often cut off the political oxygen required for mass mobilization on environmental issues’ (ibid.). In light of Vimal Bhai’s appeal to ‘keep religion out of river movements’, what then are the ‘existing perspectives’, discursively and practically?

Two positions are of particular interest here: commitment on the basis of ‘faith’ and on the basis of ‘science’ (here: ecology). It should be added that these positions are juxtaposed for analytical purposes, with no intention of disregarding the variations and fluid transitions that actually exist. There are three dimensions of differentiation. The first is the question of what primarily motivates ecological engagement, whether the focus is on protecting ecosystems or preserving sacred landscapes. Second, each approach will highlight different ‘facts’, for example, whether the most crucial aspect is the destruction of a river’s ecology or the impairment of its divine qualities. Religious and scientific rationales can overlap in such cases, as when hydropower company officials insist that the construction of their dam has not affected the sanctity of the river (Werner 2015:160–161). Third, the approaches can differ dramatically in the methods they employ to achieve their goals, ranging from legal action to appeals to the ruling party’s religious sentiments, each approach producing quite different possibilities for mobilization. I am not suggesting that the concerns listed are mutually exclusive or

that alliances between different groups cannot be beneficial in terms of common goals. However, recalling the literature on the growing convergence between the environmental movement and the Hindu right, it is important to note that success (in this case, the cancellation of hydroelectric projects on ‘sacred rivers’) sometimes comes at a price.

The debate over G.D. Agrawal (1932–2018), or Swami Gyan Swaroop Sanand as he later called himself, is a prominent example of this quandary. Agrawal is a clear representative of the first position. Starting in 2008, the former engineer undertook a series of fasts to protest hydroelectric projects on the Bhagirathi, the upper stream of the Ganges. While these were successful at first, his 2018 fast for the cleansing and unimpeded flow of the river ultimately led to his death. Agrawal has been characterized as a ‘scientist and rishi’ (Gautam 2008), but he always prioritized faith over ecological concerns and used science primarily to confirm his faith-based convictions. In line with my construction of the two positions, Agrawal makes a clear distinction between two rationales for rejecting the projects on Bhagirathi, namely those pertaining to ‘our Faith, Culture, Tradition and Sentiments’ and those based on ‘Environmental/Scientific considerations’, relegating the latter to ‘meaningless auxiliaries’ (Agrawal 2008:2; capitals his). While Agrawal’s commitment was generally welcomed in activist circles, some commentators criticized his exclusive focus on preserving the Ganges as a sacred Hindu river. In *A Critique of Loharinag–Pala, Pala–Maneri and Other Hydroelectric Projects on R. Bhagirathi*, Agrawal had explicitly stated that the Ganges was ‘no ordinary river’ for Hindus – not so for members of other religions, whose ‘[cultural] ethos is in no way linked to the *land* and geography of India’ (ibid. 2008:2–3; underlinings in the original replaced by italics). Although Agrawal may not fit the characterization of ‘communal religious’ people mentioned in Vimal Bhai’s quote, and his death sparked fierce criticism of the Modi government for not conceding to his demands, his case represents the inherent dilemma of using ‘faith-based’ or ‘culturalist’ arguments in environmental conflict and the unfortunate alliances that can result – at worst, pandering to the Hindu right (for detailed accounts of his role and the reception of his involvement, see e.g. Drew 2017; Werner 2015).

Turning now to the second position, the reliance on ‘science’ to support the environmental cause, it is faced with at least two challenges: first, the incongruity within science, i.e. the incompatibilities or contradictions that different scientific disciplines may produce on the same subject (while all claim to be part of the same universal or universalizable scientific undertaking); and second, the relationship between science and concerns that are located outside the realm of science. That is, even if something is considered ‘reasonable’ or ‘scientifically sound’ by all sides, those who suffer from its application may not agree that science should be given precedence over non-scientific concerns in the matter at stake. A prime example would be the implementation of a scientifically accredited ‘development’ infrastructure project resulting in the forced relocation of thousands. As for incongruence, contradictions may arise from the fact that different disciplines might be part of the same universal endeavor but differ significantly in terms of their methods and goals. A geologist and climatologist may have

a different view of the planned construction of a dam in an earthquake zone than the engineer commissioned to build it or the economist responsible for calculating its profitability. Finally, while experts in applied science, predominantly engineers, may make 'sound' scientific claims, the incentives for and consequences of those claims are political.

Without engaging in such politics, however, environmental activism is unlikely to make itself heard, at least not when it comes to improving the conditions of project-affected people in the short term. To achieve the best for those whose livelihoods are threatened by the implementation of large-scale 'development' projects, one has to provide numbers, prove (scientifically) that the projects result in massive environmental damage, prove that the project-affected areas have become uninhabitable and calculate the value of their land. This is where environmentalism needs science. Without scientific argumentation, one cannot deal with the science of the other side. Scientific reasoning helps to translate and 'validate' people's knowledge for an audience that adheres to scientific registers. People recognize and articulate the changes in their lives. But they may find it difficult to get a hearing for how the implementation of hydroelectric projects will induce landslides and dry up local springs without a universalizable episteme that places their concerns in a broader context of infrastructure failure and climate change. And yet science is an ambivalent ally. After all, it may be the same science that suggests that large dams are the best solution because they provide climate-friendly energy. Scientists from the same discipline might argue that monetary compensation has provided a much better deal given the barrenness of a group's ancestral lands (ignoring the affective quality of the lands because that is not measurable).

Many of those engaged in environmental NGOs, think tanks and activist groups have engineering backgrounds, have worked as policy advisors, and have graduated from the same institutions as those now in government positions with whom they are at odds. They likely share the same epistemological premises, but remain unheard for reasons that have little to do with their scientific merits. Even if the demands of all stakeholders are part of the same epistemic universe and they agree on the same scientific standards, the discourse is hierarchized. And this hierarchy is not necessarily ranked in terms of the degree of universality of the claims. Universality is not simply 'out there', it is not a thing to be owned. Rather, claims to universality are often part of a legitimizing strategy. I echo Vimal Bhai's call for the environmental movement to be guided by sound science and justice; unfortunately, decisions about what counts as sound science often have little to do with science itself. And even less to do with justice.

Reconciling Science and Environmentalism?

So far, I have discussed the challenges facing environmentalism in the scope of politicized science. In the remainder of this article, I will talk about options. Here I do not mean to make condescending suggestions to environmental activists for possible

'improvements' to their practices. Rather, the following is my attempt to draft a timely 'grammar of environmentalism' that has something to offer to the current ecological, political, and societal upheavals. This attempt builds on both an ongoing dialogue with people involved in environmental conflict and scholarly efforts towards 'rethinking environmentalism [by] linking justice, sustainability, and diversity' (Lele et al. 2018).

Let me briefly recall the problem. As we have seen, the relations between science claims and politics in India are manifold. First, science is often used to justify political interventions; second, the decision about what constitutes 'sound science' is usually limited to institutionalized authorities. The power of definition that the state claims in such matters, and the way in which it establishes the boundaries of legitimacy in terms of method and content, is crucial here. Remember that state consolidation is based on 'science's work as a metaphor', as 'a grammar of modern power' (Prakash 1999:7; see also p. 113, this article). Epistemological nuances and disciplinary specifics are readily neglected when science is mobilized in this way. Its use as an abstraction also blurs the distinction between science and applied science, with applied science tending to have the upper hand in development interventions. Science – as in environmental science, physics, seismography, biology, and others – is vital to assessing the impact of so-called development projects. Reducing science to the level of an assessment tool, however, obscures the fact that there is no such thing as a 'neutral' reference to science. For one thing, the paradigmatic premises of development interventions are not up for debate if measuring their impact is the sole concern. Second, such reduction conceals the fact that the question of who can assert their scientific approaches and findings over others is often a political one. A telling example of this is the notorious practice of environmental impact assessments being repeated by different groups of 'experts' until the desired result is achieved. To make matters worse, science is regularly used as a killer argument against concerns that cannot be measured. Without scientific support, critical voices in environmental disputes are stripped of legitimacy and are even more likely to be dismissed. One might assume that this would also marginalize religious interventions, but this is not necessarily the case. The boundaries between scientific and religious positions are not as clear-cut as the cliché of modern science would have us believe, either in the Indian context or in most other places. In an effort to give modern science a distinctly homegrown flavor, their integration is also high on the political agenda. As we have seen above, in India today, religion enters the realm of science in many ways. It is even made measurable when it is convenient. But it is not just about reconciling epistemes: it is about the assertion of power. The salience that 'science's cultural authority' (Prakash 1999:7) has acquired in contemporary India has been detailed above. If today's Hindu nationalists have their way, there will be one version of one religion, synonymous with one cultural identity, that defines India. This is where grammar comes in.

Grammar is an appealing metaphor when it comes to political discourse, but what I have in mind here is more than metaphorical. In addition to using grammar as an analytical tool to describe hegemonic political discourse, I intend to explore the po-

tential of ‘grammar-based interventions’ to challenge that discourse.¹³ Here I draw on the usual distinction between normative or prescriptive and descriptive grammar. By setting a binding standard, normative grammar tells you right from wrong for any given communicative act. The normative approach helps us understand how hegemonic discourse operates by determining what is ‘correct’ and therefore legitimate to say (and do), and by structuring communication accordingly. Descriptive grammar, on the other hand, tells us what people express and how they express it, whether through speech acts or other forms of communication. The descriptive approach is crucial for challenging standard grammar in that it can reveal communicative acts and writings within a multitude of ‘sub-grammars’ that literally undo hegemonic grammatical rules.¹⁴ While ‘the grammar of environmental politics [has] been profoundly altered’ in today’s India (D’Souza 2022:630), it may be rewritten from its margins.

What is involved in such a rewrite? In breaking down what has been said about the ambivalent invocation of science and religion in contemporary Indian environmental politics, two aspects are crucial: the contextualization of the argument or, more generally, the communicative act within a particular ‘sub-grammar’; and the political implications that emerge from serving these grammars, be it in terms of audibility, representational authority, and/or involuntary alliances. It is not only what is said and how it is said, but also who speaks on behalf of and with whom. Contributions from non-hegemonic world relations have the potential to disrupt and enrich mainstream perceptions, but they also run the risk of being appropriated and adapted to, if not actively allied with, the currently dominant political ideology.

Emma Mawdsley, who has written extensively on the points of convergence between the Hindu right and the environmental movement, expresses these risks quite clearly when she poses the question of ‘guilt by association?’ (Mawdsley 2006:388). While I agree with her caution against ‘neo-traditionalism’ and the need to deconstruct the idioms one uses, I wonder if warning environmental movements against serving right-wing ends by using compatible semantics is not putting the cart before the horse. An argument readily appropriated by the right is not necessarily right-wing itself. Admittedly it can be, and often is. The crucial question, then, is what the semantic proximity of arguments employed for very different political purposes means for the need and/or possibilities of redefining and reclaiming the language we use. As Ashish Kothari has convincingly argued, this is not a matter of definite either-or, but of con-

13 This is my first attempt at developing grammar as a critical concept, which I intend to expand on in the future. My aim in harnessing grammar in this way builds on earlier reflections on the historicity of political language and how this affects the scope for social critique; see Werner 2015, in particular pp. 201-202. I have hardly come across any works that use grammar for ethnography. Christopher Kelty’s *The Participant* (2019) is a notable exception.

14 However, hegemonic grammar tends to extend its normativity to the level of sub-grammar, as when culturally specific places and practices experience shifts in meaning through processes of Sanskritization. For how this happens in Kinnaur in the western Indian Himalayas, see Negi and Werner 2023.

textual choices: ‘Re-define, re-signify, re-imagine, depending also on the distortion and cooptation that happened’ (Del Bene 2014).

A grammar of environmentalism capable of facilitating such choices would have three things to offer: a semantic sensibility that not only juxtaposes or reconciles conceptual claims, but derives their respective meanings from their contextual use; a renewed focus on justice and solidarity, not standardized but ethically universal/universalizable; and a greater space for the voices, literally the words, of those who suffer from their absence. Turning a blind-eye to the concerns and needs of the people directly affected by environmental degradation in the landscapes they inhabit is not an option. Manshi Asher, environmental justice activist and part of Himdhara, an environment research and action collective, gets to the heart of the matter:

The problem with mainstream environmentalism? It separates us from nature. ... [W]e may stop considering ourselves the “saviours” of nature and truly understand how we are a part of it’ (Asher 2020).

A romanticizing, ahistorical and decontextualized ontologization of nature is not particularly conducive to a less harmful way of living in and with it. In an ideal world, environmental/ist grammar is a collective effort based on ethically universalizable claims that may or may not originate in the realm of science.

With its focus on justice, the grammar I envision builds a bridge between normativity and description. Any claim to justice as desirable ideal is normative. As part of a non-hegemonic grammar, however, such normativity would feed on different worlds and remain open to debate, reflecting a ‘minimal common’ in terms of concerns and ethics, rather than a definite target state. In this respect, then, my grammar is also descriptive, in so far as it situates calls for justice in the lived practices of those involved in environmental conflict. Science and religion may be a part of this grammar, but they no longer operate through universal hegemonic claims. To put it more concretely: as an abstract appeal to authority, science, like religion, is an instrument of power. In the grammar of environmentalism I have in mind, however, science will find its place by virtue of its pluralistic, contextual diversity. Such a placement also allows us to position modern science alongside other kinds of situated knowledge, both ‘non-western’ and ‘western’, thus ‘provincializing’ the claim to its universality (see also Chakrabarty 2000). Expert knowledge would not necessarily have to be labeled as science in order to gain legitimacy. I have certain reservations about the tendency to call any kind of knowledge science, not because I devalue it; on the contrary, it strikes me that the pursuit of the label ‘science’ – albeit often with adjectives limiting its scope, such as ‘citizen’ or ‘indigenous’ – is still informed by the same exclusionary premise that no knowledge outside science really counts (see also Subramaniam 2000:84). It would be redundant to list all the historical confluences and ways in which modern science has been influenced by various scientific traditions, many of which preceded it. But it is equally important to recognize that not all knowledge must belong to science in order

to matter. Science, on the other hand, may need to open up to ‘non-measuring’ disciplines such as aesthetics and anthropology.

Let me conclude where I started. As for rejecting limiting binaries, I am completely on Subramaniam’s side. I also share the hope she places in global movements that strive for justice, not least through counter-hegemonic mobilizations of knowledge and science (Subramaniam 2019:226–227). And while for most of us the nature/culture divide has long since been obsolete, I am ready to agree, if need be, that science and religion can be reconciled as well. As I have tried to show, it is the ‘how’ that gives me pause, even more so in this day and age. Science and religion have always been intertwined with cultural politics. Now that right-wing cultural politics is disrupting democracy in India and around the world, even more caution is in order. As for the embrace of science and religion, I suggest that in each context we need to examine carefully what the implications are, what the relationship between the two is, and whether hierarchies are involved that make one the acolyte of the other. As for the invitations we extend, intentionally or not, we need to be clear each time what – and whom – we might be embracing. Finally, and perhaps most importantly, if we seek reconciliation, we must strive to understand why people resort to a particular conceptualization of the world, which is reflected not least in the grammar they use.

Acknowledgements

I have accumulated many debts in writing this paper. I would like to thank my colleagues at the Max Weber Centre, University of Erfurt, for their comments on an earlier version. I also appreciate the helpful suggestions from the reviewers. In particular, I want to thank Georg Berkemer, Shelley Feldman, Antje Linkenbach and Pramiti Negi for their substantive input and moral support in completing this work.

Funding Information

Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation – 434516521)

References

- Agrawal, G.D. 2008: 'A Critique of Loharinag–Pala, Pala–Maneri and Other Hydroelectric Projects on R. Bhagirathi', document obtained from *South Asia Network on Dams, Rivers and People (SANDRP)*.
- Asher, Manshi 2020, June 5: The Problem With Mainstream Environmentalism? It Separates Us From Nature. *The Wire Science*. <https://science.thewire.in/politics/government/world-environment-day-in-violate-nature-capitalism-environmentalism/>, accessed February 3, 2023.
- Avikunthak, Ashish 2022, October 10: B.B. Lal and the Making of Hindutva Archaeology. *The Wire*. <https://thewire.in/history/b-b-lal-hindutva-archaeology-ram-temple-babri-masjid-ayodhya>, accessed March 21, 2023.
- Baviskar, Amita 1999: Vanishing Forests, Sacred Trees: A Hindu Perspective on Eco-Consciousness. *Asian Geographer* 18(1-2):21–31.
- Bramwell, Anna 1989: *Ecology in the Twentieth Century: A History*. New Haven: Yale University Press.
- Brass, Tom 1994: The Politics of Gender, Nature and Nation in the Discourse of the New Farmers' Movements. *The Journal of Peasant Studies* 21(3-4):27–71.
- Brass, Tom 2000: *Peasants, Populism, and Postmodernism: The Return of the Agrarian Myth*. London: Frank Cass.
- Chakrabarty, Dipesh 2000: *Provincializing Europe. Postcolonial Thought and Historical Difference*. Princeton, NJ: Princeton University Press.
- Chandhoke, Neera 2001, February 7: The Conceits of Representation. *The Hindu*. <http://www.hindu.com/2001/02/07/stories/05072523.htm>, accessed November 9, 2008.
- Chapple, Christopher, and Mary E. Tucker eds. 2000: *Hinduism and Ecology: The Intersection of Earth, Sky, and Water*. Cambridge: Harvard University Press.
- Del Bene, Daniela 2014, November 11: 'No Resistance Can Win Without an Alternative Vision.' Ashish Kothari on India's Activist Agenda. *Environmental Justice Organisations, Liabilities and Trade (EJOLT)*. <http://www.ejolt.org/2014/11/no-resistance-can-win-without-an-alternative-vision-ashish-kothari-on-indias-activist-agenda/>, accessed March 21, 2019.
- Deshpande, Satish 1995: Communalising the Nation-Space: Notes on Spatial Strategies of Hindutva. *Economic and Political Weekly* 30(50):3220–3227.
- Drew, Georgina 2017: *River Dialogues: Hindu Faith and the Political Ecology of Dams on the Sacred Ganga*. Tuscon: The University of Arizona Press.
- D'Souza, Rohan 2022: Environmental History of South Asia in the Time of Hindutva. *Environmental History* 27(4):625–633.
- Forsyth, Tim 2007: Are Environmental Social Movements Socially Exclusive? An Historical Study from Thailand. *World Development* 35(12):2110–2130.
- Fuchs, Martin 2000: Articulating the World: Social Movements, the Self-Transcendence of Society and the Question of Culture. *Thesis Eleven* 61:65–85.
- Gautam, Anil 2008: *Dr. G.D. Agrawal: Scientist and Rishi*. Dehradun: Peoples' Science Institute.
- Gosling, David L. 2001: *Religion and Ecology in India and South-East Asia*. London, New York: Routledge.
- Kelty, Christopher M. 2019: *The Participant: A Century of Participation in Four Stories*. Chicago, London: The University of Chicago Press.
- Kothari, Smitu 2009, June 9: A Million Mutinies Now: Lesser-Known Environmental Movements. *Centre Tricontinental (CETRI)*. <https://www.cetri.be/A-million-mutinies-now-Lesser?lang=fr>, accessed June 9, 2018.
- Lele, Sharachandra, Eduardo S. Brondízio, John Byrne, G. M. Mace, Joan Martínez Alier, and J. R. Lupp eds. 2018: *Rethinking Environmentalism: Linking Justice, Sustainability, and Diversity*. Cambridge: MIT Press.

- Linkenbach, Antje 1994: Ecological Movements and the Critique of Development: Agents and Interpreters. *Thesis Eleven* 39:63–85.
- Linkenbach, Antje 2007: *Forest Futures: Global Representations and Ground Realities in the Himalayas*. Ranikhet: Permanent Black.
- Mawdsley, Emma 2005: The Abuse of Religion and Ecology: The Vishwa Hindu Parishad and Tehri Dam. *World Views: Environment, Culture, Religion* 9(1):1–24.
- Mawdsley, Emma 2006: Hindu Nationalism, Neo-Traditionalism and Environmental Discourses in India. *Geoforum* 37:380–390.
- Menon, Gautam I. 2022, August 8: 75 Years Later, Indian Science Faces New Crossroads. *The Wire Science*. <https://science.thewire.in/the-sciences/the-cross-roads-indian-science-is-facing-have-changed-in-the-last-75-years/>, accessed November 24, 2022.
- Modi, Narendra 2024: Message. In: Anjana Seshadri, and Harleen Kaur eds., *A Decade of Science: Technology Panorama for Aatmanirbhar Bharat*. P. vii. New Delhi: Office of the Principal Scientific Adviser to the Government of India and Foundation for Advancing Science and Technology.
- Nanda, Meera 2001: We are All Hybrids Now: The Dangerous Epistemology of Post-Colonial Populism. *The Journal of Peasant Studies* 28(2):162–186.
- Nanda, Meera 2004, 8 July: *Dharmic Ecology and the Neo-Pagan International: The Dangers of Religious Environmentalism in India*. Paper presented at the 18th European Conference on Modern South Asian Studies, Lunds University, Sweden.
- Nandi, Jayashree 2022, September 23: PM Modi Cautions States Against Delaying Environmental Clearances. *Hindustan Times*. <https://www.hindustantimes.com/india-news/modi-cautions-against-delays-in-environmental-clearances-101663932325043.html>, accessed March 21, 2023.
- Negi, Pramiti, and Hanna Werner 2023: Himalayan Youth Resist through Art: Debunking ‘Development’ in Kinnaur. A Photo Essay. *Dastavezi: The Audio-Visual South Asia* 5(1):64–95.
- New Indian Express 2022, September 11: Science Has Power to Accelerate Development of Every Region: PM Modi. *The New Indian Express*. <https://www.newindianexpress.com/nation/2022/sep/11/science-has-power-to-accelerate-development-of-every-region-pm-modi-2497097.html>, accessed November 24, 2022.
- Olsen, Jonathan 2000: The Perils of Rootedness: On Bioregionalism and Right Wing Ecology in Germany. *Landscape Journal* 19(1/2):73–83.
- Pandey, Gyanendra 1990: *The Construction of Communalism in Colonial North India*. New Delhi: Oxford University Press.
- Pradhan, Amruta 2020, June 23: Draft EIA Notification 2020: Dilutes EIA Process & Encourages Violations. *South Asia Network on Dams, Rivers and People (SANDRP)*. <https://sandrp.in/2020/06/23/draft-eia-notification-2020-dilutes-eia-process-encourages-violations/#more-35866>, accessed March 21, 2023.
- Prakash, Gyan 1999: *Another Reason: Science and the Imagination of Modern India*. Princeton, NJ: Princeton University Press.
- Prime, Ranchor 1992: *Hinduism and Ecology: Seeds of Truth*. London: Cassell.
- Puri, Jyoti 2019: Sculpting the Saffron Body: Yoga, Hindutva, and the International Marketplace. In: Chatterji, Angana P., Thomas Blom Hansen, and Christophe Jaffrelot eds., *Majoritarian State: How Hindu Nationalism is Changing India*. Pp. 317–331. New York: Oxford University Press.
- Raina, Dhruv 2003: *Images and Contexts: The Historiography of Science and Modernity in India*. New Delhi: Oxford University Press.
- Sahu, Subrat Kumar 2019: *Ho Gyi Hai Pir Parvat Si* [The Mountains Agonized]. Documentary film, 111 minutes.
- Seth, Bharat L. 2016, January 14: ‘Keep Religion Out of River Movements’: An Interview with Indian Activist Vimal Bhai. *International Rivers*. <https://www.internationalrivers.org/blogs/328-28>, accessed March 21, 2019.

- Shaik Ali, Misria 2022: Review of Holy Science: The Biopolitics of Hindu Nationalism. In: Souvik Kar, Misria Shaik Ali, and Nayeli Urquiza-Haas: Three Analyses of Banu Subramaniam's Holy Science: The Biopolitics of Hindu Nationalism. *Tapuya: Latin American Science, Technology and Society* 5(1):4–8.
- Sharma, Mukul 2002: Saffronising Green. *India Seminar*. <http://www.india-seminar.com/2002/516/516%20mukul%20sharma.htm>, accessed May 3, 2009.
- Sharma, Mukul 2009: Passages from Nature to Nationalism: Sunderlal Bahuguna and Tehri Dam Opposition in Garhwal. *Economic and Political Weekly* 44(8):35–42.
- Sharma, Mukul 2012: *Green and Saffron: Hindu Nationalism and Indian Environmental Politics*. Ranikhet, Bangalore: Permanent Black.
- Sharma, Mukul 2024: *Green and Saffron: The RSS, Modi, and Indian Environment Politics*. Ranikhet: Permanent Black.
- Singh, Jaspal 2021: The Sociolinguistic Saffronisation of India. In: Theodoropoulou, Irene, and Johanna Tovar eds., *Research Companion to Language and Country Branding*. Pp. 57–71. London: Routledge.
- Sinha, Debadityo 2022, August 18: Remembering Vimal Bhai: The Environmental Activist, Social Justice Warrior and an Inspiration. *Down to Earth*. <https://www.downtoearth.org.in/blog/environment/remembering-vimal-bhai-the-environmental-activist-social-justice-warrior-and-an-inspiration-84379>, accessed August 20, 2022.
- Sinha, Subir, Gururani, Shubhra, and Brian Greenberg 1997: The 'New Traditionalist' Discourse of Indian Environmentalism. *The Journal of Peasant Studies* 24(3):65–99.
- Subramaniam, Banu 2000: Archaic Modernities: Science, Secularism, and Religion in Modern India. *Social Text* 64(3):67–86.
- Subramaniam, Banu 2019: *Holy Science: The Biopolitics of Hindu Nationalism*. Seattle: University of Washington Press.
- Sundar, Nandini, and Gowhar Fazili 2020: Academic Freedom in India: A Status Report, 2020. *Indian Cultural Forum*. <https://indianculturalforum.in/wp-content/uploads/2020/09/ICF-Academic-Freedom-.pdf>, accessed November 24, 2022.
- Thomas, Renny 2018: Beyond Conflict and Complementarity: Science and Religion in Contemporary India. *Science, Technology and Society* 23(1):47–64.
- Thomas, Renny 2022: *Science and Religion in India: Beyond Disenchantment*. Abingdon Oxon: Routledge.
- Werner, Hanna 2015: *The Politics of Dams: Developmental Perspectives and Social Critique in Modern India*. New Delhi: Oxford University Press.
- Zachariah, Benjamin 2005: *Developing India: An Intellectual and Social History*. New Delhi: Oxford University Press.