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## **Pursuing Environmental History on India's Himalayas: Challenges and Rewards**

### **Introduction**

The Himalayas exemplify all the complexity and distinctiveness of mountain systems around the world. Their geology is so intricate that it is still not understood in detail. Their ecosystems vary by elevation zone, sunward or shadeward slopes, soil patterns, and seasonal cycles—the contrasts are dramatic where monsoon Asia collides with the northern Asian land and climate mass. In this setting species diversity is extreme and still understudied.

So dynamic and variable is this terrain that human history has also varied from one mountain valley to another and from upland areas to adjacent lowlands. To study history in these mountains is inevitably to study environmental history, the interactions between human communities and their natural settings. For over 2,000 years human settlements have dotted the region in great ethnic and linguistic complexity.

### **Localism and Nationalism**

For two millennia minority groups have drifted northward from the Indus and Ganges lowlands into the river valleys of the western and central Himalayas. Like mountain regions elsewhere, these mountain valleys have been peripheries of population, power, and wealth in the lowlands. They have been defensive against incursions from lowland capitals, yet dependent on the lowlands for anything more than minimal subsistence. Stratification of wealth, power, status, and landholding has tended to be less extreme than in the wider regions of the subcontinent. But over the centuries, local landholding elites in several locations have held both status and responsibility as guardians of their people against pressures from the south.

The Nepal Himalayas were never absorbed into the imperial regimes of the Gangetic heartland and remained separate even in British imperial times. But to the northeast,

up the Brahmaputra valley, and much more in the northwestern region toward Kashmir, the impact of Western colonial systems was widespread from the early nineteenth century onward. For this region the overriding subject for me became the differences of degree and kind that the European impact had. It was to be my major fascination in the second stage of my career.

### Scope and Themes of My Work

I was a decade into my historical research before I turned to the specific (and comparative) question of the environmental history of mountain societies. I had previously been interested in the response of social elites in urban India to British imperial rule. But at one point in the late 1970s, I became aware that their contested political territory included what we now would call environmental politics—especially control, exploitation, and management of forests. This resonated with the newly prominent international alarm over the rapid decline of tropical forests. So I began to pursue the story of controversies over forest resources in the setting of the British Raj—that is, British colonial rule in India—beginning in the 1850s. Could we understand the rates and processes of forest reduction in the Indian subcontinent better by placing them in the context of the nationalist resistance to British rule? Did Indians and the British have competing or complementary interests in the forests? Did India's intricate socio-economic hierarchy create comprehensible contests between different sub-groups that helped explain the role of forest protests in the Freedom Movement? Moreover, did they help explain the contradictory post-Independence legacy of the Raj after 1947?

I selected the area of the western Himalayas that fell under British rule and administration, first after the 1815 conquest of Kumaon and Garhwal in the upper Gangetic region and then after the 1847 conquest of Punjab and its northern mountain hinterland.<sup>1</sup> This was the first large segment of the Himalayas that experienced intensive pressures of modernization, beginning with massive cutting of the hardwood forests for building the civil manifestations of military control and economic development: army cantonments (permanent military stations) and the region-wide railway grid.

1 A survey of the environmental history of this region can be found in Chetan Singh, *Natural Promises: Ecology and Peasant Life in the Western Himalaya, 1800-1950* (Delhi: Oxford University Press, 1998).

For the century of British rule until 1947, the most prominent stories of colonial ecological change centered on the pine forests of the Himalayan foothills (construction timber and industrial turpentine), the middle-elevation zone of Himalayan cedar (railway sleepers and other strong construction uses), and ultimately the higher-elevation spruce and fir stands, though these were not widely exploited until the 1950s. In the Reserved Forests there were three-way tensions in this work. The Forest Department worked with (and frequently against) private contractors, most of them from the lowlands and ethnically different from the hill villagers. Hill men were hired as forest laborers, often distrusting both officials and contractors.<sup>2</sup>

The two world wars, with their impacts on imperial administration and forest products extraction, comprised two disruptive and confusing periods in this century of colonial rule. Little had been written about the impacts of those inter-imperial wars on peripheral mountain regions around the world, but India's forestry records indicated that the imperial administration was able to accelerate timber fellings intensively during both wars, providing critical resources for military campaigns in the Middle East and elsewhere. In 1914 an elaborate system of railways was in place in lowland India for transporting timber to coastal ports, but transport infrastructure in the hill regions was still elementary, and wheeled vehicles were rare. But by 1939 the technological capacity of the Raj was far greater: trucks and jeeps moved along new forest roads, enabling timber extraction on a far larger scale. This continued in the turbulent conditions that followed in the late 1940s, marked by the creation of Pakistan and the transfer of Indian forest management to Indian officials. In 1944–45 senior British forest officers reviewed the condition of these forests, claiming that in the long run their productivity had not been significantly damaged by wartime necessities. But was that assessment self-serving, as they prepared to turn over management to their Indian protégés? That is still a visible element of the debate over the colonial legacy. This is not only political or cultural history; in essence it is environmental history.<sup>3</sup>

2 This and my other publications on the region are collected in Richard Tucker, *A Forest History of India* (New Delhi: Sage India, 2011).

3 Richard Tucker, "The World Wars and the Globalization of Timber Cutting," in *Natural Enemy, Natural Ally: Toward an Environmental History of War*, ed. Richard Tucker and Edmund Russell (Corvallis: Oregon State University Press, 2004), 110–41.

### Challenges for Research: Working Conditions and Politics

Figure 1:  
India's Forest  
Research Institute,  
Dehra Dun.  
Photo courtesy of  
the author.



The changeable political history of the Himalayan region has had the result of dispersing historical records in many locations. This presents researchers with many kinds of difficult conditions. Administrative archives in the region are mostly underfunded, understaffed, and only partially organized. In India I often frequented the Indian Forest Service library in Dehra Dun, as well as several Forest Department district offices. For the evolving political context, briefer visits to the National Archives and Nehru Memorial Library in New Delhi were in order. Access to Princely States' records, including important portions of the western Himalayas, is much less orderly; I had to leave that work to Indian colleagues who were much better positioned to pursue the unpredictable process of finding whether any former royal archive had useful materials or not. For broader Himalayas-wide perspectives, the research facilities at ICIMOD (the International Centre for Integrated Mountain Development) in Kathmandu are highly valuable.<sup>4</sup>

In Britain the great colonial archives are generally well organized and staffed (partly because of the wealth that the imperial era brought to Britain), but even there the researcher finds many surprises, especially for areas that were geographically and politically peripheral to administrative centers. For the environmental history of the Indian Himalayas, the two great treasure troves are the India Office Library in London, absorbed now into the new British Library, and the remarkable Commonwealth Forestry Center in Oxford.

4 For a list of its many publications, see its website, <http://www.icimod.org>.

Reliable study of environmental history in mountain areas necessitates spending time on the ground to validate or evaluate historical archives on the scene. This contributes to the length of time required to complete any historical project, but it is also one of the great pleasures of the work. Forest Department officials in the districts were (with only an occasional exception) generous hosts on working sites; I had the benefit of long interviews with foresters, wildlife specialists, and NGO activists, and the great pleasure of trekking with shepherds and their dogs and livestock in the high country. Everyone offers a cup of chai as an expression of hospitality. I came to count my working days as 4-cup days, even 10-cup days, when my advisors and informants were available all at once. The 2-cup days were when my timing was wrong or unlucky.

Every aspect of this work is seasonal, for the demanding climate of the Himalayas, even in the foothills, presents difficulties in the cold winter and saturating monsoon seasons. Some libraries have to close for the cold months; others are almost inaccessible during the heavy summer rains. By early August frequent landslides block mountain roads, and even when the rains subside and roads are reopened, the cost of this research is far more than financial: all-night bus rides on incessantly winding roads are the penalty for the researcher's enthusiasm.

Research on the Indian Himalayas inevitably also takes a scholar into politically sensitive border regions, though this difficulty has gradually subsided in recent years. In the earlier years, from around 1980, historians who did not confine themselves to the archives but walked the hills, talked with resource managers, lived near displaced Tibetans, and trekked with shepherds were under surveillance if not suspicion by India's Foreigners Police. This was understandable in regions near the dangerous borders with China and Pakistan. So I had to be careful not to engage in any contemporary political controversy. In the northeastern Himalayas, where internal tribal insurgencies have plagued central and state governments for decades, there has been palpable danger to outside investigators. Government permissions are required for access to those border areas, and those permissions have generally been close to impossible to obtain for foreign investigators. The tendency of any government toward bureaucratic red tape and obscurantist attitudes comes into play, exacerbating legitimate official concerns.

During my research in India, ideological stresses among researchers presented another challenge. Many post-Independence writers in India placed the "blame" largely on

the British Raj for any social conflict or environmental stress that faced India in more recent times. These nationalist writers wrote history as moral tracts, as many of their British predecessors had done. Understandably, Western scholars sometimes had to demonstrate their credentials to Indian scholars as well as to bureaucrats. But out of this neo-colonial situation arose a rigorous debate over each writer's perspective and underlying attitude and the implications of each scholar's work for understanding the day's controversies. Indians had the major advantage of deeper cultural and linguistic understanding, while foreign scholars had the possible advantage of cultural distance. Even among Indians, urban elite writers faced the challenge of demonstrating that they comprehended the circumstances of non-literate people, lower castes, ethnic minorities, and rural women, as well as the urgencies of back-country poverty.

The public setting was sometimes less nuanced. After one lecture I gave on the complexities and counter-currents of colonial forestry management, a local journalist wrote an article stating that the American scholar had blamed the British for all of the region's environmental troubles. He entirely missed the question of whether our research is about *blame* at all.

All these factors have presented a variety of challenges to the writing of mountain environmental history. The broadest challenge is to sort out complexity: the great diversity of ecological, cultural, and linguistic settings, as well as of environmental change. And each essay has to struggle with the choice of contexts—matters of geographical and social scale, and perhaps of comparability with other studies.<sup>5</sup>

Beneath this consideration is the pervasive question of an author's fundamental criteria for the narrative. Is the account about management or degradation of natural resources? What is the difference between utilization and degradation? Are the author's criteria explicit or at least clearly implied? Do author and readers agree on the evaluative criteria?

Finally, there is the literary dimension: the challenge to write accessibly, even vividly, about the processes of resource extraction. My own prose had to struggle with the infection of forestry records' rhetorically dull conventional categories. Travelers and polemi-

5 Comparative perspectives on the environmental history of mountain regions around the world are discussed in many issues of the outstanding journal *Mountain Research and Development*.

cists have not been encumbered by administrative formalities and standardization, but each historian has to find a middle path for his or her own stylistic strategies in telling these remarkable stories. For they are not tales of routine, repeated procedures of subsistence and administration, but dramas (quiet or otherwise) of continuity and change in one of the world's most dramatic settings.

### Broader Perspectives



**Figure 2:**  
Hardwood  
plantation, gov-  
ernment forest.  
Photo courtesy of  
the author.

It seemed straightforward at first, studying the history of deforestation in one of the world's greatest and most fragile mountain regions. But the work led inexorably on to more complex issues. Forests are more than trees, mountain societies have always relied upon more than wood products for their development, and mountain ecosystems are impacted in vastly intricate ways. Under British rule traditional access to forests was redefined according to colonial forest law (imported models based on early modern German laws), which required written permits that villagers could obtain only from local forest officials. This meant the bureaucratization of village life, with its attendant delays, frustrations, and opportunities for corruption. In the rivalries between



**Figure 3:**  
Cedar forest:  
timber harvest.  
Photo courtesy of  
the author.



**Figure 4:**  
Ground fire in  
pine forest. Photo  
courtesy of the  
author.



local officials (both British and their Indian subordinates) and rural people, patterns of resisting and evading authority evolved, becoming a major dimension of the colonial legacy of resource management for post-Independence times.<sup>6</sup>

Anthropological studies provide essential contributions to our understanding of mountain history.<sup>7</sup> The backdrop to contestation over natural resources was hill village society and its patterns of subsistence and market exchange. This includes many non-timber forest products such as wild foods, medicinal herbs, and bamboos. The colonial regime had revealingly labeled them Minor Forest Products, ignoring their vital role in the household economy. Gender issues were embedded here, for the traditional gendered division of labor meant that women were the primary collectors of fuelwood and fodder on the mountain slopes. But village women's roles were ignored not only by colonial administrators but also by literate village men. Until at least the 1970s only the occasional eccentric anthropologist paid any attention to these complexities, which were tantalizingly indicative of environmental change.

Just as forests are more than trees, villages are more than people. Livestock are a crucial component of hill farming life anywhere. Another vital intersection between colonial foresters and village communities was transhumant grazing and its region-wide markets. Farm families in the lower hills maintained cattle locally, and in some areas (this

6 For another scholar's perspective, see Ramachandra Guha, *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalayas* (Berkeley: University of California Press, 1989).

7 For a wide range of studies across the entire Himalayan region, see *Himalaya: The Journal of the Association for Nepal and Himalayan Studies*, over three decades. A leading study of my research area is J. Mark Baker, *The Kuhls of Kangra: Community Managed Irrigation in the Western Himalaya* (Seattle: University of Washington Press, 2005).

varied widely from one sub-region to another) their men were also shepherds, taking large flocks of sheep and goats to alpine summer pastures as much as two high ranges to the north. The animals produced wool and meat, including enough wool to sell as a cash crop in lowland markets. The shepherds knew alpine pasture ecology better than anyone else, but their increasing numbers (though the trend in numbers was also contested) put pressure on young trees in the understory of forests. The British

attempted to regulate the migratory flocks, recognizing their centuries-old significance and attempting to manage both the forests and social conflicts, but the relationship was never harmonious. One essential dimension of this transhumance rhythm was the shifting relationship between upland shepherds and their lowland wool buyers, one of the most important economic links between the two regions.<sup>8</sup>



Figure 5:  
Migratory sheep.  
Photo courtesy of  
the author.

These frictions between regime and people have led to various accommodations, well worth describing in themselves, not the least of which have been various strategies of community forestry. Official systems of cooperation between foresters and villagers took internationally recognized form in Nepal in the 1970s and were adopted with variations in India, state by state, beginning in the 1980s. Here too, historians have had an important role to play by studying a variety of antecedents to social forestry in British India from the end of World War I onward. My foray into description of late colonial social forestry in the Kumaon hills was an example of writing about the past from the explicit perspective of contemporary debates.

One more dimension of environmental history in the mountain region remained: the changing picture of wildlife. By the 1980s charismatic species such as the snow leopard and endangered game birds were hitting the headlines. It was important to study the

8 The finest study of this transhumant economic and social system is Vasant Saberwal, *Pastoral Politics: Shepherds, Bureaucrats and Conservation in the Western Himalaya* (New Delhi: Oxford University Press, 1999).

history of hunting (both local and imperial), species depletion of endangered flora as well as fauna, and the establishment of Protected Areas. In India, as in many countries, these locations have been marked by intensely differing priorities between local users of wild species and conservationists from urban and international bases.<sup>9</sup> Colonial Reserved Forest management included controls on hunting and an explicit nod to wildlife management. Many colonial officials and their European guests were avid hunters (and fishers on the mountain rivers), as were their elite Indian hosts. Many were also wildlife biologists, though formal credentials had to wait until after Independence, when India's magnificent system of National Parks emerged from a combination of long-standing aristocratic hunting reserves and colonial Reserved Forests. Walks with binoculars on high mountainsides and evening conversations with both village and elite hunters whetted my appetite for adding this dimension, which completed the spectrum of environmental change in the region.

### Contemporary Applications?

This work has to deal (explicitly or implicitly) with the question of its significance for today's public controversies. In the 1980s, when systematic historical study of the interaction of mountain communities, government officials, and their ecological settings was in its infancy, more than one important environmental planner urged me to accelerate my writing because it would be highly valuable in informing the public debate over forest law and administration. Though I was gratified that my work might be valuable beyond an audience of university students, I was not a policy analyst or defender of any faction; indeed, I was only a guest in that country. Perhaps adhering to the standards of scholarly rigor is an adequate way of resolving my responsibility to my host country.

But there is one more aspect to that responsibility: the familiar challenge of the work's accessibility for Indian researchers and the general public. I published my work in scholarly journals on three continents over two decades. No one could know where to find it all and decide for themselves what its usefulness might be. I am grateful to friends in New Delhi and to Sage India Publisher for gathering those essays under one cover, so that they can be accessed easily by interested readers.<sup>10</sup>

9 For all-India context see Mahesh Rangarajan, *India's Wildlife History* (Delhi: Permanent Black, 2001).

10 Tucker, *A Forest History of India*.



Figure 6:  
Great Himalayan  
National Park.  
Photo courtesy of  
the author.

Through the years, the pleasures and rewards of working in the mountains have grown out of the difficulties and uncertainties. The exhausting bus rides, the occasionally futile searches for archival materials, the monsoon rockslides and unmet schedules: all have been counter-balanced by long walks, congenial meetings, sudden insights, and supportive colleagues. When long hours at the computer are rewarded by prose that flows easily and confidently, the sense of reward is all that anyone could require.