British began extending their control over forests in India (including Uttaranchal, or Uttarakhand) after passing the Forest Acts of 1865 and 1878. This was driven by the increasing demand for timber, and hence the growing significance of forests as a source of revenue. Forests also acquired strategic importance with the growing requirement for timber for the expanding railway network. During the period of colonial rule tree-felling in Uttaranchal can be distinguished into three phases. In the first phase (1815-1865) the demand for wood was low and there was only limited interest in managing forests. The demand for timber began to grow toward the end of this period, and it gained momentum in what can be seen as the second phase (1865-1913). During this phase the government built roads and improved waterways to ensure rapid transport of wood. As a result, between the 1860s and the early 1910s timber production, on average, increased from 0.72 to 4.5 million cubic feet per annum. In the third phase (1913-1947), timber out-turn fluctuated and was quite low between 1925 and 1935. However, the felling of trees peaked during World War II.

Several factors contributed to the increased extraction of wood from forests. Some scholars attribute increased extraction to the growing local population. However, they overlook the fact that the amount of timber exported out of the region far exceeded local consumption. Villagers definitely collected large quantities of fuelwood from forests, but this was mostly in the form of dry fallen wood. Other demands for wood came from urban centres; the

Deforestation in Uttaranchal in the Nineteenth and Twentieth Centuries

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forests of Uttaranchal constituted the main source of timber and firewood for the inhabitants of the Gangetic plains. Moreover, in the twentieth century, the establishment of industries increased the demand for raw material and fuel from these forests.

Nevertheless, it is largely unknown that the demand for timber and fuel by the railways during the colonial period put tremendous pressure on these forests. According to one estimate, the railways consumed approximately one-third of the timber out-turn of the country in the early twentieth century. Wooden sleepers were used to lay tracks. Initially, only sal, deodar, and teak were used; later, creosoted chir sleepers were also found to be sufficiently durable for use as sleepers. As the railway network expanded (from 1,349 km in 1860 to 65, 217 km in 1946-7)

the demand for wooden sleepers increased many fold. Moreover, as it was expensive to transport coal over great distances, wood was also used as fuel for trains in many places.

Till recently, only the conversion of forest land to other uses has been regarded as deforestation. Such an approach does not take into account the declining quality of forests. However, in reality forests were overexploited, since wood extraction was unsustainable. This would have led to forest degradation, if not denudation, though the degradation would not have been apparent till much later. I suggest that recognizing the degradation of forests due to timber extraction links deforestation to the production of wood, and not just to land conversion. This historical dimension to deforestation has not been adequately analysed by scholars.

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Revisiting India's Biodiversity Planning Process

Nikhil Anand

much negotiation countries of the North and South, India signed the Convention for Biological Diversity in 1992. The Convention required every member country to formulate its own National Biodiversity Strategy, and Action Plan. In 1999, the Indian Ministry of Environment and Forests (MoEF) nominated Kalpavriksh, an NGO long engaged with conservation and environment issues, to coordinate the process. I review the ways in which NGOs, state agencies environment and development and activists participated in the preparation of India's National Biodiversity Strategy and Action Plan (NBSAP) between 1999 and 2004.

Biodiversity is a concept particularly conducive collaboration—it is an idea that holds interest for both scientists and the wider public. Taking the need for a widely consultative process seriously, Kalpavriksh made special efforts to encourage and solicit participation from a range

active of actors. They sent out a call for participation in eighteen languages, through both the radio and print media, and nominated over seventy groups to produce as many plans at the state, ecoregional, thematic and substate levels. They also invited experts to present sub-thematic reviews, and constituted a core group that sought participation from a wide range of sectors including different central and state ministries, citizens, and corporate entities. In the words of the MoEF, the NBSAP was 'India's biggest planning process.'

The Power of Structure

From its very inception the core group was mandated to produce a series of planning documents on biodiversity, for which they sought extensive participation. In preparing and formatting this document, power was exercised and consolidated at different levels. Its framing as a planning process for biodiversity determined who would take part and what could be said. The process inherited the

contentious history of conservation, and could mobilize only those who saw biodiversity as threatened, and planning as one of the necessary solutions. One person familiar with the NBSAP resented how 'the very format in which management plans were required - identifying gaps, setting timeframes and monies required' actually confined participants to a limiting structure. This format did not provide space for discussing the kinds of dynamic processes and activities that others favored (NBSAP interview, July 2003).

Theformatofplanningitself required a certain set of strategies to be identified, fixed, and written down. Here, state agencies exerted significant pressure. Because their participation was necessary and unavoidable, government agencies exercised a disproportionate amount of influence in determining the final form of the planning document. Much to the chagrin of several participants, officials in state agencies refused to compromise on certain issues, and forced discreet changes in the plan's language to suit the their offices.

Contradictory Participations

Yet officials in state agencies could not control the NBSAP process entirely. Not all NGOs and activists who participated were equally bound by the demands of state control. The different frameworks, innovativeness, and creativity of these groups introduced a degree of agency and institutional diversity that is not generally seen in planning exercises. With the space opened up for participation, various researchers, and community and NGO activists joined the planning process to make sophisticated critiques of various

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