



## Analysis

# Legal exclusions, private wealth and livelihoods: An analysis of work time allocation in protected areas

Sirisha C. Naidu \*

Department of Economics, Wright State University, 3640 Colonel Glenn Highway, Dayton, OH 45435, USA

## ARTICLE INFO

### Article history:

Received 26 September 2011  
 Received in revised form 22 December 2012  
 Accepted 3 February 2013  
 Available online 17 March 2013

### Keywords:

Resource access  
 Protected area  
 Resource dependence  
 Rural livelihoods  
 Time allocation  
 India

## ABSTRACT

Do exclusionary forest access regimes have an unequal impact on livelihood activities? This paper analyzes primary data on time allocation to livelihood activities by forest communities in the Indian Himalayas to investigate this question. Estimation results are consistent with the hypothesis that forest access regimes affect both forest extraction behavior and other livelihood strategies. Residents of sanctuary forests, experiencing higher restrictions on forest use, decrease the proportion of time allocated to forest extraction and livestock activities, but compensate by increasing their time allocation to agriculture in comparison to residents of state-controlled protected forests. However, wealthy residents of the wildlife sanctuary expend a higher proportion of their time in managing livestock and extracting forest resources in comparison to its less affluent residents. Thus wealth enables circumvention of access restrictions despite legalization of exclusion. Findings of this study have implications for design of biodiversity conservation and carbon sequestration policies.

© 2013 Elsevier B.V. All rights reserved.

## 1. Introduction

Environmental conservation is increasingly being recognized as essential for human wellbeing. This concern is both incorporated in global development targets such as the Millennium Development Goals (MDG) as well as global environmental targets such as the Convention on Biological Diversity (CBD). Concerted efforts consequently have increased the number and area covered by protected areas (PAs) worldwide by 58% and 48% respectively since 1990, with a larger proportion of total geographical area in developing countries (13.3%) under PAs compared to developed countries (11.6%) (Bertzky et al., 2012). Yet there still continues to be significant debate about the impacts of restrictive access regimes on local people, incorporation of goals of equitable management and consumption, and shared governance of PAs with local communities. On the one hand, advocates of fortress conservation view any human activity as anathema to conservation efforts. On the other hand, critiques have been developed of top-down conservation models and there is significant support for “people-centered conservation” (e.g. see Brandon and Wells, 1992; Hayes, 2006). The lack of resolution over an appropriate model for PAs is reflected in the mosaic of property and access regimes in countries like India. Despite the acceptance of community involvement in forest management and governance of nationalized forests in India, forest policies continue to suffer from a colonial hangover and restrictive access regimes continue to be the dominant conservation strategy (e.g., Chhatre and Saberwal, 2006a,b; Gadgil and Guha, 1995;

Guha, 1994; Rajan, 1998; Saberwal, 2000; Sarin et al., 2003; Sundar, 2000; Sundar et al., 2001). However, despite the significant influence of control and authority wielded by the state, the relationship is not deterministic. Individuals, households and communities often retain de facto rights to forest benefits due to historical reasons and may even employ private assets and resources to extend their access through legal and extra-legal instruments.

Rights and access to forest benefits pose two interesting questions. First, what impacts do PAs have on rural livelihoods? In the context of South Asian rural economies, which tend to be forest dependent and where households engage in multiple livelihood strategies (see Ellis, 2000), restrictions on access to forest benefits, even without evictions, could significantly affect household income (e.g. McElwee, 2010). In this paper, however, the focus will remain on the effect on rural livelihoods. A change in forest benefits could change the character of rural production and needs to be investigated in order to understand the overall impact of PAs. Second, do existing differences in private wealth interact with access restrictions associated with PAs to influence livelihood strategies? Private resources could be employed to undermine or influence restrictive access regimes and explain differences in benefits from forests (see Rangan, 1997; Ribot and Peluso, 2003; Schlager and Ostrom, 1992). In this case, the impact of PAs is dependent on existing differences in socioeconomic factors differentiating households and individuals from each other. Answering these two questions could be the first step toward an evaluation of equitable management of PAs as specified in the Aichi Target 11 of the CBD, and whether the interests of local people are being accounted for. These issues are important in the Indian context where, according to one estimate, 275 million people living in rural areas depend on forests for their livelihoods (World Bank, 2006).

\* Tel.: +1 937 775 2960; fax: +1 937 775 2441.  
 E-mail address: [sirisha.naidu@wright.edu](mailto:sirisha.naidu@wright.edu).

In order to answer these questions, this paper compares rural livelihoods in two categories of PAs, one with a more legally restrictive access regime than the other. Primary data were collected from 203 respondents living under the two regimes in the northwest Himalayan state of Himachal Pradesh in India. These data are statistically analyzed using an inflated beta regression model to arrive at inferences about rural livelihoods in PAs. The paper is organized as follows. The next section contextualizes the study by providing a conceptual and historical framework with which forest rights and access can be understood. Section 3 describes methods and the data, and Section 4 reports the findings from a statistical analysis of the data. The final section presents a discussion of the policy relevance of the findings.

## 2. Study Background

Fieldwork was conducted in the Chuhar valley in Mandi district located in the Middle Hills of the Himalayan ranges in Himachal Pradesh with an altitude of 1200–3000 m (GoHP, 2009) (see Table 1 for selected statistics). The region is forested and following nationalization of forests under British rule is legally classified as Protected Forests, except for a 318 km<sup>2</sup> wildlife sanctuary. The latter was classified as a Reserved Forest prior to 1974 after which an initial notification declared it as Nargu Wildlife Sanctuary; it received its final notification in 1999.<sup>1</sup> Legal classifications affect forest rights and benefits, as do historical and socio-political processes, conflicting objectives, adoption of coercive and non-coercive methods to achieve conservation objectives (see Rangan, 1997), and the ability of individuals, households and communities to subvert the control of the state and other institutions (see Ribot and Peluso, 2003). These factors provide insight into how forest rights are secured and how individuals are able to benefit from these rights in the context of the study region.

First consider the legal and ecological parameters that govern resource use and conservation in the Wildlife Sanctuary as well as the Protected Forests. The Indian Forest Act 1878 and its subsequent amendments nationalized most of India's forests and placed them under the control of the Forest Department. Of the 24% of India's total geographical area that is legally classified as forestland, 52% is classified as Reserved Forests, National Forests, or Wildlife Sanctuaries and the remaining as Protected Forests (FSI, 2009). The stated objective of these forests is to conserve biological resources in situ and they fall under the management and control of these the Forest Department, a state agency. However, while the Indian Forest Act severely curtails rights to forest use in Reserved Forests by local communities, forest rights in Protected Forests are left variable and differ for each individual state consonant with Indian federalism. Reinforcing the curtailment of forest rights for Nargu sanctuary is the Indian Wildlife (Protection) Act, 1972 (WLPA) and its subsequent amendments in 1993 and 2002 that define sanctuaries as intended for the protection of wildlife and its environment through the exclusion of human activity. The Wildlife Sanctuary could be classified under IUCN's category IV that mandates exclusion, and even though unintended by the Indian state Protected Forests could be classified as IUCN VI protected area which allows sustainable use (see Dudley, 2008).<sup>2</sup> Thus, legally Nargu Sanctuary is associated with a higher degree of access restrictions than the surrounding Protected Forests in Mandi district.

Second, property regimes that determine forest rights are specific to historical, political, and social processes and conditions. The federal system in India deems forests as part of what is known as a 'concurrent list'. This means that while the central government makes broad recommendations and formulates overarching policies, the implementation of these policies is at the discretion of individual states.

<sup>1</sup> The initial notification declares the intention of the state government to establish a sanctuary within or outside any reserve forest, while the final notification, after settlement of land and forest claims, specifies the area of the sanctuary and declares the PA as a sanctuary.

<sup>2</sup> IUCN refers to International Union for Conservation of Nature.

**Table 1**  
Characteristics of Mandi district.

Geographical area	3950 km <sup>2</sup>
Population size (2011)	999,518 individuals
Percentage of rural population to total population (2001)	93.23%
Population density (2011)	253 persons/km <sup>2</sup>
Literacy rate (2011)	82.81%
Sex ratio (2011)	1012 females per 1000 males
Net irrigated area as percent of net sown area (2005–2006)	16.07%
Net sown area as percent of total geographical area (2005–2006)	15.86%
Permanent grazing and pasture lands (2004–2005)	24.23%
Forests as percent of total geographical area (2007)	42.35%
Altitude	1200–3000 m above sea level

Sources: GoHP (2009, 2011), Gol (2001, 2011), FSI (2009).

Thus implementation of forest rights of the local population is subject to the legacy of varying colonial land tenure systems in different states and regions, and exigencies of the local polity (Rangarajan, 1996).

When forests were nationalized in India under the British regime, settlement of forest rights in Himachal Pradesh were unusually recorded under the Protected Forests chapter of the Indian Forest Act rather than the Reserved Forests chapter<sup>3</sup> (Chhatre, 2003). Thus, even though Reserved Forests constitute 13.65% of the total geographical area and 18.85% of the total forested area in Himachal Pradesh (FSI, 2009), local residents claim customary usufruct rights in their community forests irrespective of whether they are classified as Reserved or Protected Forests. These customary rights are recognized by the state government and the Forest Department, and forest dwellers live in and extract from forests. In Chuhar valley these rights, which extend to both the Wildlife Sanctuary and Protected Forests, include grazing; collection of brushwood and grass, fruits and honey, fallen trees and needles, fuelwood, resin, wood for the dead, and timber for agricultural implements; lopping for fodder; charcoal preparation for agricultural implements (Sharma, 1996). Further, these forest rights were vested in the village community rather than in individual households so all households in the village have equal rights to forest use in community forests<sup>4</sup> (Hobley, 1992).

Third, conservation officials and experts in India and elsewhere often perceive the conservation objective as being in conflict with customary usufruct rights and strongly advocate for fortress conservation. The recognition of customary rights by local authorities and the Forest Department in Himachal Pradesh is thus a result of severe resistance by local communities during past attempts at eviction and curtailment of forest rights and an unwillingness to bear the high socio-political costs associated with fortress conservation. Chhatre and Saberwal (2006a,b) for instance, discuss the agency of those evicted from the Great Himalayan National Park in Himachal Pradesh in maintaining their access to forests and Rangan (1997) discusses conditions under which the state has ceded control over forests in the Indian Himalayas. In the study region the Forest Department has not only allowed customary rights based on its interpretation of the Indian Forest Act, but in the case of Protected Forests has also allowed communities a significant role in forest management and conservation. Nevertheless, despite its unwillingness to evict people from the Wildlife Sanctuary and its attempts to denotify the Sanctuary, the Himachal Pradesh Forest Department has faced tremendous pressure to at least enforce use restrictions and even increase the total area of the Sanctuary (GoHP, 2010; MoEF, 1993, 2003). The increase in Sanctuary area was legally approved without any

<sup>3</sup> In the late 19th century, the British colonial government settled land claims on forestland to pave the way for nationalization of forests.

<sup>4</sup> Sacred groves are an exception to equal forest rights but not of concern in this paper because of their absence in the study area.

Download English Version:

<https://daneshyari.com/en/article/5050089>

Download Persian Version:

<https://daneshyari.com/article/5050089>

[Daneshyari.com](https://daneshyari.com)