

Claims on Natural Resources: Exploring the Role of Political Power in Pre-Colonial Rajasthan, India

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Abstract: *The issue of claims over natural resources has been debated for a long time. With its growing powers, the state has increasingly claimed prior proprietary rights over natural resources. It is generally proposed that traditional societies were able to resolve the issue of claims over natural resources and state intervention was minimal. Early writings have sought to establish a 'golden age' approach to Indian environmental history. The interventionist attitude of the state has been attributed to the British. The state tried to control and manage the natural resources not for conservation but to enhance revenue collection. However, it might be incorrect to attribute interventionism only to colonial and post-colonial administrations. Medieval states were also very eager to ensure continuous and regular appropriation of revenue and were thus actively involved with the management and appropriation of natural resources. Here, an attempt is made to examine the necessity and extent of intervention in the management and appropriation of natural resources. The role of traditional rights and claims of the common man have also been examined.*

Keywords: natural resources, water disputes, unauthorised cutting of trees, punishment over killing of animals, village level disputes, state initiatives and response, conservation rituals and religious practices

INTRODUCTION

THE ROLE AND POSITION of the state has been a part of contemporary discourse on the environmental history of colonial India. Most writings characterise the nature of British administration as interventionist (Gadgil 1985; Gadgil and Guha 1992; Grove 1998).¹ These studies have examined the issue of

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'claims on natural resources' mostly in terms of forests (Rangarajan 1996; Saberwal 1997; Rajan 1998; Sivaramakrishnan 1998; Skaria 1999), irrigation (Jodha 2001; Mosse 2003; D'Souza 2004), and related issues. At the same time, these writings tend to assume a particular image of the pre-colonial state, as one that was distant from the rural agro-ecological system. Sumit Guha has questioned such generalisations, but has focused largely on the Khandesh region controlled by the Marathas (Guha 1999, 2002). This paper examines the nature of claims on natural resources in Rajasthan and questions the dominant assumptions ascribed to pre-colonial rule. Since the words 'natural resources' may call forth different connotations, it should be made clear that I have used it in a broader sense without specifying any particular definition. I take it to include all kinds of produce associated with 'flora and fauna,' as also water (potable as well as irrigation) and agricultural produce to suggest the extensive domain enjoyed by the rulers in seventeenth and eighteenth century Rajasthan.

This paper examines the nature and the extent of intervention by the ruling aristocracy in the management and appropriation of natural resources. It also examines the influences of religious practices on the claims over natural resources. The region in focus broadly corresponds to pre-colonial Rajasthan, especially the regional states of Marwar, Bikaner, and Jaisalmer in the west, and Amber in the east. Rajasthan has traditionally sustained both a pastoral economy and an agricultural one. The economy, centering on limited agricultural possibilities, was very fragile and the vagaries of the monsoon made the already sparse natural vegetation particularly vulnerable. The political configuration of the region was dominated by a preponderance of feudal polities. In the case of Rajasthan, we discover a different set of relations emerging between the ruling classes and the subjects. This relationship is partly the result of a response to the peculiar environmental conditions in Rajasthan. Did the paucity of natural resources result in reckless appropriation or prudent use of resources? The paper examines the possibility of arrangements for the prudent use of resources.

Study Area

As in most pre-industrial societies, the geographic and topographical features of Rajasthan exerted a significant influence over its socio-economic conditions. The Aravalli hills, running diagonally from southwest to northeast, divide Rajasthan broadly into two natural divisions, namely, the northwestern and the southeastern sectors. In the northwest lie the arid plains and shifting sand hills of Marwar, Jaisalmer, Bikaner, and the Shekhawati region of Jaipur, collectively bearing the term *maroosthali*. This region is characterised by low ridges and sand dunes. "...The region is full of dust storms. It is such a desolate desert that if a newcomer misses the path, he is lost forever and dies." (Munhta 1657-1666, 1962: 31)

The diurnal and seasonal variation in temperature is characteristic and has been recorded by Abul Fazl (1978), the court historian of Mughal Emperor Akbar in

the sixteenth century as well as by Emperor Jahangir at the beginning of the seventeenth century (Jahangir 1607-1626, 1968). In Marwar, the climate is extremely dry. There is a great difference throughout the year between the day and night temperatures. It is intensely hot during the day in the summer months while the nights are generally cold. During the winter months the weather is cool and bracing (Imperial Gazetteer 1908: 92). The north and northwest division, covering nearly three-fifths of Rajasthan, is characterised by the presence of low ridges and sand dunes, the heights of which vary from fifty to hundred feet. The sandy tract extends in the west from the Rann of Kachch to the border of Sindh and forms part of the Thar Desert. The soils are classified as light textured, grey-brown desert soils, which are alkaline with a high degree of salinity.

Rivers play a subordinate role in moulding the surface features of this area. The only river of any importance is Luni or the Salt River, which emerges from the Aravalli hills and flows through the desert of Marwar. The region falls outside the regular course of both the southwestern and northeastern monsoons. Rainfall also varies a lot in Rajasthan, depending upon the place of origin, route of the monsoons, and other related factors. In the western part, i.e., Jaisalmer, Bikaner, and a greater part of Marwar, the annual rainfall scarcely averages more than 12 cm (Hendley 1900). In the southwest, the rainfall is much more copious; and at Abu, it sometimes exceeds 250 cm (Imperial Gazetteer 1908: 92). Almost the entire region is sandy waste, poorly watered and unproductive, except in the neighbourhood of the Aravallis. The water here is brackish and found at a depth of 200 to 300 feet below the surface. Only the oases, which are highly scattered, support vegetation and clusters of human settlements, with their artificial tanks or natural hollows or pools that collect water during the rainy season and retain it for a few months.

The impact of such varied natural, physical, and environmental features of Rajasthan is clearly visible in the nature of the vegetation. There are no large timber forests in Rajasthan, but the woodlands are extensive in the southwestern Aravallis and throughout the adjoining hilly tracts, where the rainfall is good. Mount Abu is well wooded. The western slopes of the range are still well clothed with trees and bush, up to the neighbourhood of Merwara. The hills and ravines of Sirohi are generally wooded and some of them in the region of Mount Abu and Neemuch produce timber. The area lacks hard woods like teak (*Tectona grandis*) and *sal* (*Shorea robusta*). Instead, the major trees found here are thorny species like *babool* (*Acacia arabica*), and *khejri* (*Prosopis cineraria*). All vegetation, however, rapidly decreases in the direction of Looni.

Contemporary historical evidences point to a variety of wildlife. Archival sources refer to various species of herbivores like deer, (*Arhsatta*, village Pattagaon, *pargana* Chatsu, 1775 vs./A.D. 1718) *langur* (*Semnopithecus entellus*) (*Arhsatta*, *Qasba* Malpura, *pargana* Malpura, 1821 vs./A.D. 1664), and wild boar (Munhta, 1657-1666, quoted in Sakariya 1960: 96).² The exact species of deer is unclear in the references. It is interesting that in our records there are hardly any references to the tiger (*Panthera tigris*) and none to the lion (*Panthera leo*) in the Amber principality whereas the now extinct Asiatic cheetah (*Acinonyx jubatus*) was captured in the Amber region in A.D. 1697 (*Arzdasht*, Migsar Vadi 13, 1754 vs.) and a bear in A.D. 1741 (*Arhsatta*, Sawai Jaipur 1798 vs.).³

METHODS

Sources

The records for this kind of study mostly relate to the official and non-official papers stored in archives. The Rajasthan State Archives, Bikaner, is a rich repository of such documents. An important category of official documents available in archival repositories is the *arzdashts* or petitions written to the ruler at Amber by the *amil*s (revenue officials) and other *pargana* (district level administrative unit) officials. These officials regularly reported various revenue and administrative details of the areas under their control to the ruling authorities. These documents were written in response to the problems faced by concerned officials and therefore provide useful insights into the various concerns of the state. Simultaneously, they also give us the responses and remedies adopted by these officials and the inhabitants to deal with the problems. The other important archival source used in this study is the *arhsatta*, which is a ledger of receipts and expenditure maintained at the *pargana* level. The *arhsattas* contained sixty-eight (*arhsat*) categories of information, and thus their name. The measurements of cultivable land, i.e. land under actual cultivation, the tax thereupon, and other taxes realised in a *pargana*, as was deemed necessary by the state, are also provided in these documents. Of the sixty-eight categories of information, one was known as *hasil-farohi*, which meant the collection of money deposited as a fine in the court at the *pargana* level. The documents in this category also provide information on various crimes committed in the region. We have also used a very informative document known as *Sanad Parwana Bahi* relating to the Marwar region. The terms *sanad* and *parwana* explain the functions this document performed. These are primarily imperial directives issued to the *pargana* officials in response to various complaints and representations received by the state. The subject matter of these documents ranges from routine complaints of undue revenue extraction and complaints against state officials to mutual disputes related to the amount of water in a well to be shared among the people.⁴ A good deal of light is thrown on the problems faced by the peasants, the primary producing class, and the methods of redress adopted by the state. Various kinds of concessions and help were offered by the state to the peasantry, especially as monsoon failures were frequent.

Situating Pre-Colonial Political Power

The paucity of natural resources necessitated greater ties of inter-dependence between, and among, the ruling class and the peasantry at large. This was manifested in the distribution of resources and the stratification of the society. The emergence of Rajput-dominated polities in pre-colonial Rajasthan was partially a product of this (Sharma 1977). Bringing fresh land under cultivation was achieved with the help of kin. It was a society in which family ties were crucial in determining status and power. The polity and kinship systems coexisted and were intermixed, implying empowerment based on family ties. The structure was hierarchical with the ruler, who had acquired territorial rights and established the principality, as the head of the clan; then came the *thikanadars* (nobles) who were his *sagas* (blood relatives):

brothers, sons and other close relatives. The dominant sections of the village society comprised various strata of the rural aristocracy (like *jagirdars*, *bhomias* and *bohras*) who owed their status partly to hereditary superior proprietary rights in land and partly to their position in the apparatus of the revenue administration (Gupta 1986; Singh 1990). Moneylenders known as *mahajan/bohra* were the source of capital for ordinary peasantry. Moneylenders advanced seed loans (Singh 1974) and credit for purchase of ploughs (Bajekal 1990). The rulers offered a certain amount of patronage and protection to *mahajans*, as the state recognised their importance (Singh 1974).

In the pre-capitalist phase, the state represented the primary form of economic power. Revenue appropriation and distribution of agricultural resources were the two most important roles performed by the ruling class. To demonstrate their superior social status and economic position, the ruling elite practised the euphemisation of economic resources. "... what the wealthy did was to transmute a portion of their disproportionate economic means into forms of status, prestige and social control by means of acts they passed off as voluntary acts of generosity or charity. This social control was, of course, again convertible into labour services and hence again into material wealth." (Scott 1985: 306-07).⁵ The *Ranas* or rulers and the landed aristocracy cornered a large portion of the surplus from agriculture. A share of this wealth was extended to the peasantry. This was evident in loans offered to the peasantry for the extension of agriculture or in order to sustain cultivation. Privileges and concessions for the peasants formed a part of the picture. Most of the privileges and concessions were practised as part of tradition and honoured both by the rulers and the subjects as customary rights.⁶ These concessions comprised acceptance of several kinds of claims made by the peasantry. However, the ruling elite had to keep on reinforcing control over the subjects and its primacy of claims over natural resources.

The landscape of Rajasthan has been dominated by a combination of agricultural and livestock rearing practices. We can safely argue that most of the production in any pre-industrial society was directly or indirectly based on agricultural production. The natural vegetation of the region, especially of the northwestern part, encouraged sheep and goat rearing. Grazing land sustained superior breeds of cattle for export to agriculture zones of other regions, sheep for wool, and camels for transport.⁷ Trade and commerce was also an important component of these economies as is evident in the nature of taxation where non-agricultural production was also taxed extensively. Rulers also imposed fines on different kinds of illegal usage of natural resources. For instance, the felling of green trees or defacing the village pond through use of dyes were subject to penalty (*Arhsatta*, *qasba* Malpura, *pargana* Malpura, 1791 vs./A.D. 1734). Similarly, killing of buffaloes was also fined (village Kiratpura, *pargana* Bahatri, 1774 vs./A.D.1717). It is, however, not clear from the available records which official imposed or collected the fines. However, the records suggest that such enforcement was evidently commonplace.

The semi-arid and arid nature of the region imposed several limitations on the vegetation as well as on production possibilities, and attempts by the state to punish illegal usages should be analysed in this context only. The nature of the

taxation system (revenue) provides further insight into the agro-economic constraints. There were two modes of revenue assessment prevalent in the region. These were, firstly, a cash assessment per unit area of land or the *zabti* system; and secondly, the crop-sharing method or *batai* based on a physical division of the crop in an agreed proportion between the peasant and the state. These two systems coexisted for each *qasba* and village, and for each harvest (Gupta 1986).

The magnitude of land revenue demand depended upon the quality of the soil, location of the field, duration for which the field was left fallow, and the degree of capital and labour investment. These incorporated to formulate a complex schedule of graded tax rates for each crop (Bajekal 1990). The documents make it evident that the revenue appropriators were very active in the protection of agriculture and strict vigil over the monsoons was maintained. Rulers were kept informed about the timing and magnitude of rains (Kumar 2001).

Water was the most limiting factor for crop production. The supply of water by natural precipitation was meagre and sporadic. The long-, as well as the short-term variations in the climate and rainfall ruined the crops and dried up fodder, thus making living conditions difficult. Given the absence of perennial rivers and the erratic nature of rainfall, the only viable alternative was to tap water through artificial methods of irrigation (Singh 1990; Bhadani 1999).⁸ The availability of irrigation facilities made a difference to agricultural productivity.

It is not surprising that most of the disputes over water uses have been confined to illegal cutting of the canals and draining of water by the peasantry for irrigation (*Sanad Parwana Bahi, Jeth Sudi 9, 1825 vs./A.D.1768*). There is evidence even of the cutting of dams to secure water for irrigation (*Arhsatta, village Raitoli, pargana Dausa, 1825 vs./A.D. 1768; village Dhamorki, pargana Chatsu, 1775 vs./A.D.1718; qasba Baswa, pargana Bhartri, 1774 vs./A.D. 1717*). At the same time, there are records that show that even in disputes between individuals over the right to use water, the state had imposed cash punishment (*Arhsatta, village Raitoli, pargana Dausa, 1825 vs./AD. 1768, village Dhamorki, pargana Chatsu, 1775 vs./A.D. 1718; qasba Baswa, pargana Bhartri, 1774 vs./A.D.1717; village Neemblo, pargana Bhartri, 1774 vs./A.D.1717*). The availability of water in any region was an important consideration in explaining settlement patterns (Wahi 1997).

It is important to note that the type of crop grown determined the method of assessment: the *zabti* or *batai* method or sometimes a combination of both. However, since this was an area of dry farming that was prone to uncertain harvests, crop sharing was clearly of advantage to the cultivator. It was the preferred mode of discharging his revenue obligations. Thus it can be suggested that in conditions of uncertain production, the preference for crop sharing, especially for rain-fed crops, was consistent with the risk-aversion strategy of the peasant.

Intercropping was preferable and extensively practised in the arid and semi-arid environment of Rajasthan. Unlike mixed crops where different crops are sown and harvested simultaneously, inter-cropped plants, whether or not sown together, are harvested separately. Intercropping was practised to avert the vagaries of an uncertain monsoon. The timing and duration of the rains determined the crop combination and the order of preference among them. Moreover, the disparity in productivity and prices led to inter-cropped plants being assessed separately. In

the case of such crop combinations, once each crop had been separately harvested, the physical divisions of the crops in the proportions specified by the *batai* schedule was perhaps the more appropriate and simpler method of revenue collection (Bajekal 1990).

Accessibility and nature of irrigation facilities determined the variations in land revenue rates. The tax burden on artificially irrigated land was less. This reduction was perhaps to compensate for the cost of the instruments made for irrigation. For example, *bara* or *vor* or *varakyari* (land of the first quality) was charged at the rate of one-half, while the *piwal* or *piyal* (irrigated) lands watered by wells (*dhenkli*) and tanks (*tals*) were charged at a lower rate (Gupta 1986: 148). Even when cash crops like sugarcane were produced on land naturally inundated by river water, it was more heavily taxed (Rs 5 per *bigha*) than that which was artificially irrigated by wells (Rs 3 per *bigha*) (Bajekal 1990: 118). Furthermore, the rate of taxation varied according to the means of irrigation. It was a general practice that *bhog* (land revenue) was stated as a rate on *arhat* (Persian wheel). However, the rate varied according to the kind of wells (Bajekal 1990). This further testifies that the ruling elite was aware of environmental constraints on agricultural production and it was visible in the nature of taxation. Determination of land revenue according to the means of irrigation also testifies to the extent of intervention made by the ruling sections of the society in pre-colonial period.

The degree of intervention made by the rulers can be gauged by the imposition of *rokad-rakam*. The non-agricultural taxes collected in cash (*rokad*) were collectively termed as *rokad-rakam*. Recognising the precarious nature of production, the rulers of Bikaner relied more on *rokad-rakam*, which consisted of a large number of taxes and was the main source of income from the countryside. Unlike settled agricultural zones, pastoral communities were semi-nomadic, and thus difficult to tax. Thus, livestock-rearing communities were taxed on the basis of the number of families in the community or in terms of the number of kitchens maintained; therefore, the tax was known as *dhuan bhachh* (smoke from the chimney of the kitchens). It was a poll tax and was realised from each household at the rate of one rupee. It was a major component of the *rokad-rakam* and contributed around 40 to 50 per cent of the total. Generally *rokad-rakam* approximated 48 to 50% of the *hasil*, the total income (Devra 1976). Similarly, a tax—*talibab* was levied on the non-agriculturist class at the rate of Rs 4 per family (Powlett 1874: 162). Likewise, appreciating the limited agricultural production, rulers in Marwar were forced to tax the pastoral communities as well. The state imposed tax on temporary settlements according to the number of houses. It was known as *jhumpi*—hut (Munhta 1657-1666, 1969: 88). To further extend non-agricultural taxes, the rulers of Bikaner imposed an extra cess of eight *annas* per camel-load of goods brought by the merchants for sale in the state.

Recognising the value of animal husbandry to the economy of the kingdoms, the rulers even intervened to regulate the usage of grass. It was mandatory for the cultivators to share one-fourth of the grass produced by them with the state (*Kagad Bahi* 1827, vs./A.D.1770). Moreover, there is considerable evidence of administrative regulation of grazing grounds. To augment its resources, the state charged *singothi*—a tax of one *paise* per head of cattle. In Marwar, the tax from the cattle owners using

grazing grounds was known as *ghasmari* (Munhta 1657-1666, 1968 : 167) and *pancharai* (Bhadani 1999; Munhta 1657-1666, 1968 : 160). Since the rearing of livestock was a prominent occupation in the western region, the cultivator had to give a share of the grass produced in his field to the state. In Marwar, it was one bullock-cart-load of grass per plough of land. Furthermore, there was tax on the sale of grass in the region, “charged at Rs 2.50 on the first Rs 100 worth of fodder, and Rs 1.50 upon every successive Rs 100 worth.”(Bhadani 1999: 223).

It should also be noted that even unauthorised cutting of grass was punished (*Arhsatta, pargana Bahatri*, 1786 vs./A.D. 1729; *pargana Malrana*, 1772 vs./A.D. 1715). Documents clearly point out that there were reserved grazing lands (*Arhsatta, pargana Bahatri*, 1777 vs./A.D.1720; *pargana Mariana*, 1791 vs./A.D.1734). Even the cutting of grass from hills and forests was punished (*Arhsatta, pargana Bahatri*, 1786 vs./A.D. 1729; *pargana Malrana*, 1772 vs./A.D. 1715). Meadows were important for the military as cattle and horses used in warfare needed fodder. Ploughing and transportation were primarily based on cattle power and the need for pasture played an important role in state policies (Guha 2002). The state actively procured grass to maintain a reserve stock (*Sanad Parwana Bahi, Jeth Sudi 9*, 1825 vs./A.D. 1768) for the cavalry—(horses, camels, and elephants), the mainstay of its army.

Natural Vegetation: Social Concerns and Political Compulsions

In almost all pre-industrial societies, the importance of timber has been found to be crucial. It had multiple uses ranging from energy and firewood to furniture and tools, particularly agricultural. Political powers were concerned about the protection of vegetation. Rulers took keen interest in the development and upkeep of gardens. Taking cognisance of state interventions, a Village Revenue Officer, Ganga Ram, records that the gardens devastated earlier due to the absence of adequate water, were now well provided for with the help of a canal built by the ruler of Amber (*Arzdasht Magh Vadi 2*, 1773 vs./A.D. 1716).

General disposition towards tree conservation comes out clearly in an anecdote recorded by Munhta Nainsi in the seventeenth century where a ruler is restrained from cutting flourishing trees. The story goes that Rao Maldevji got *babool* trees of *pargana Merta* cut. As a mark of revenge, Viram Deo decided to cut down the mango (*Mangifera indica*) trees of *pargana Jodhpur*. However, people strongly advised him against this. Realising that denudation of trees would cause irreparable damage, he decided to clip a small branch of a mango tree, symbolising that he had ‘settled the account’. (Munhta 1657-1666, 1964: 101).

An important example in this regard was the representation of the *khejri* tree in the official flag of Bikaner kingdom in the seventeenth century. Flags in medieval India depicted animals—the lion in the Mughal case. Hence, the representation of the *khejri* is unusual. What is striking to this day is its critical role in sustaining agriculture and animal husbandry. Similarly, concern for vegetation is visible in the construction of *bund* Jaitsar, near Jaisalmer (Chand 1899, 1999 and Misra 1995). Maha-Rawal Jaitsingh sponsored its construction in A.D. 1513 to capture the runoff water from the adjoining northern hills. The construction of the *bund* (embankment) created a reservoir. This in turn was used to supply water to a garden. A small canal

with sluices was provided to carry and control the water from the *bund* to the garden. Though this reservoir could contain water only for four to five months, the moisture retained by the ground was sufficient to sustain the garden round the year. Moreover, the dry bed of the reservoir was utilised to cultivate the *unali/rabi* crop (winter season crop).

In Rajasthan, especially in the central and western regions, vegetation was very sparse; there were very few forests. In such a situation it was necessary to protect the existing ones with care. Village Revenue Officer Lalchand complained to the Amber ruler on *Jeth vadi* 1, 1756 vs./A.D. 1699 about tree felling in his *pargana* (Sawai Jaipur) and expected punishment for the culprit (*Arhsatta*, Sawai Jaipur 1756 vs.). In village Saithal, *pargana* Bahatri, in 1745 vs./A.D. 1688, a person was punished for cutting a *neem* tree (*Arhsatta*, village, Kundala, *pargana* Bahatri, 1745 vs.). Similar cases were reported from numerous villages and *qasba*.⁹ A *patel* (headman) of village Kharkhura was punished in 1780 vs./A.D. 1723 for the same crime (*Arhsatta*, village Kharkhura *pargana* Bahatri 1780 vs.). It appears that trees could be cut with the permission of the state authorities. The *patel* of village Kundala, *pargana* Mariana, was punished in 1789 vs./A.D. 1732 for the “unauthorised” cutting of trees in his area, the term “unauthorised” (*bin hokum neem ka dala kate*) in this context implying that permissions could be granted for the purpose (*Arhsatta*, village Kundala, *pargana* Mariana 1789 vs.). This also suggests the control enjoyed by the state with respect to vegetation.

Since *neem* had medicinal value, it was considered inauspicious to cut *neem* trees (Sinha 1979). Similarly, cutting the *peepal* tree has been reported from village Chandpur, *pargana* Bhartri in 1775 vs./A.D. 1718 (*Arhsatta*, Chandpur, *pargana* Bahatri, 1775 vs.).¹⁰ The *bad* tree was considered auspicious, hence attempts to axe the tree were punished by rulers as reported from village Chauroti, *pargana* Hindaun in 1785 vs./A.D. 1729 (*Arhsatta*, village Chauroti, *pargana* Hindaun, 1785 vs.; village Shivpur *pargana* Tonk, 1777 vs./A.D. 1720; village Nuka Ki Vas, *pargana* Lalsot, 1820 vs./A.D. 1763). Moreover, *peepal* and *bad* trees were worshipped by women of the royal household (*Arzdasht Bhadva Vadi* 5, 1762 vs./A.D. 1705). Thus, perhaps religious considerations were an added justification for punishment.

Alongside, we have evidence of punishment for cutting *jamun* (*Syzygium cumini*) trees from village Nadu, *pargana* Bahatri in 1774 vs./A.D. 1717 (*Arhsatta*, village Nadu, *pargana* Bahatri, 1774 vs.). The *babool* was a tree adapted to the specific conditions of Rajasthan and needed little or no care. In the arid region, *babool* was the dominant tree and provided food for camels. Considering the economic and ecological value of *babool*, it was considered necessary to punish those who tried to cut it (*Arhsatta*, village Palasoli, *pargana* Mariana, 1791 vs./A.D. 1734).¹¹

The practice of punishment for cutting of trees should be seen in the context of regional environment and socio-religious practices. The social concern for environment in medieval Rajasthan manifested itself in various forms. The attitude towards nature is apparent in the teachings of sects like the Bishnois. The founder of the Bishnoi sect, Jambhoji (A.D. 1451-1536), prescribed twenty-nine rules for his followers. Most of these suggested maintenance of harmony with the environment, such as the prohibition on cutting green trees and animal slaughter (Maheshwari

1970). It is said that the followers of Jambhoji were known as Bishnoi (*bish* is twenty and *noi* means nine) because it means twenty-nine in the vernacular dialects of the Rajasthani language. One plausible explanation is that the economy was primarily sustained on animal husbandry. Hence any slaughter, even during droughts, would have reduced the means of livelihood. Similarly, the cutting of green trees was prohibited, as it would reduce the availability of green fodder for the animals. It became more important in this region where natural vegetation was very thin and sparse. Jambhoji's teachings, which were congruent with the interests of the common man, became immensely popular. The number of his followers increased manifold but primarily in the arid regions of Bikaner and Jodhpur. His sect became so influential that the rulers of these states were forced to respect his sermons. Maharaja Ajit Singh issued a *parwana* (official order) restraining the cutting of green trees in 1754 vs./A.D. 1697 (*Sanad Parwana Bahi*, 1754 vs.). Anup Singh, king of Bikaner prohibited cutting of green trees in the villages dominated by the Bishnois, in 1752 vs./A.D. 1695. Similarly, in 1878 vs./A.D. 1821, Man Singh, the king of Jodhpur, issued a similar order with respect to the *khejri* tree. King Takht Singh in 1900 vs./A.D. 1843 extended the scope of this legislation by prohibiting slaughter of any animal in the villages occupied by the Bishnois.

The founder of the Bishnoi sect was not alone in attempting to influence conduct towards living beings via religious and ethical transformation. Another popular saint, Jasnathji (A.D. 1482-1506), a contemporary of Jambhoji, also endorsed such a viewpoint. His followers were known as Jasnathi. Like his contemporary, Jasnathji was also aware of the importance of the preservation of the environment. In his teachings, the *jal* tree, which formed the natural vegetation of the region, was accorded special protection (Pemaram 1977). These teachings became popular in the region, which had traditionally sustained goat and sheep rearing. Conservation of green vegetation and ban on the slaughter of animals seemed to be an attempt towards protecting people's livelihoods. Restrictions through religious and official sanctions question the older assumptions of prudent use of natural resources and environmental conservation as supposedly practised by traditional societies.

Fauna: Environmental vs. Revenue Asset?

There is hardly any need to reiterate the significance of cattle in agricultural societies. The dependence on livestock was immense, especially in the western part of Rajasthan, where animal husbandry was a vital component of agricultural societies. Cattle was an integral part of rural households as it was a socio-economic asset. Like trees, cattle protection had been a part of culture and religious teachings as well (Kumar 2001). Rangarajan (2001) has pointed out the importance of local traditions by examining the experience of Fray Sebastian Manrique who passed through the Bengal countryside in the winter of A.D. 1640. The killing of a peacock created major problems for Manrique and his party as it was against local customs to kill a living creature. Agriculture and pastoral activities both required a good supply of cattle. In the semi-arid and arid conditions, a bad monsoon would have eliminated a large number of animals. Thus there was a premium on the lives of cattle.

Importance of cattle in the economy and socio-religious considerations forced states to intervene and discourage the slaughter of animals. The killing of cattle was punished (village Kiratpura, *pargana* Bahatri, 1774 vs./A.D. 1717; village Mohamadpur, *pargana* Chatsu, 1775 vs./A.D. 1718).¹² The significance of cows in contemporary society can be realised from the following evidence. An *arzdasht* dated *Jeth Sudi* 14, 1854 vs./A.D. 1797 says that if a cow was killed, the culprit was expected to return one made of gold to its owner. Moreover, the ruler had to deliberate over the rights to cowdung (*Sanad Parwana Bahi*, *Jeth Sudi* 9, 1825 vs./A.D. 1768). The state punished even those who killed buffaloes (*Arhsatta*, village Kiratpura, *pargana* Bahatri, 1774 vs./A.D. 1717).¹³ The religious sentiments attached to the monkey must have been a consideration for punishment imposed for the killing of *langur* (*Semnopithecus entellus*) (*Arhsatta*, *qasba* Malpura, *pargana* Malpura, 1821 vs./A.D. 1764). Furthermore, we have evidence that killing of fish (*Arhsatta*, village Talab, *pargana* Bahatri, 1786 vs./A.D. 1729; village Jamalpur, *pargana* Hindaun, 1785 vs./A.D. 1728) and crocodiles (*Arhsatta*, village Sakheena, *pargana* Tonk, 1858 vs./A.D. 1801) was also punished by the state. Protection of cattle or fish, which were valuable as economic resources, had a clear motive.¹⁴ Whether there were cultural or religious motives for protecting the crocodile is unclear.

It is important to note that environmental conditions were crucial in explaining the prevalent practice of punishment in the form of cash fines. In the semi-arid and arid parts of Rajasthan, natural growth of vegetation depended upon rains, and the monsoons were very erratic. Thus, it was considered essential for the states to protect natural vegetation, if not just for environmental conservation, then definitely for economic considerations. Previous scholars have largely looked at protection of tree cover or forests for hunting or for strategic objectives, but the evidence suggests that economic motivations may have been important too in the dry northwestern parts of India (Rangarajan 1994).

CONCLUSION

Case for Further Exploration

The usage and appropriation of forest resources has been very actively debated. The question of whether forest resources were shared by the society at large or owned exclusively by the state is at the centre of this debate.¹⁵ However, we have records not only for reserved forest (*Arhsatta*, *pargana* Sawai Jaipur, 1792 vs./A.D. 1735), but also of auction of forests (*Arhsatta*, *Pargana* Bhartri, 1761 vs./A.D. 1704) which suggest that the state enjoyed considerable property right over forest resources. There were no widespread protests against such actions and it appears that state intervention had a customary sanction.¹⁶ Further research is needed but there is sufficient ground for a hypothesis that rulers did regulate the use of some, if not all, forests.

The above findings make us reorient our enquiry and reconsider the role and function of the state in medieval times. The older view that the state had no role or a very limited role in the regulation of natural resources seems problematic. The

issue that claims of various sections of society over natural resources were internally resolved is also questionable. This paper makes it clear that the ruling elite in Rajasthan very actively safeguarded their claims over natural resources and any violation was punished. The evidence of religious and political restrictions on the exploitation of natural resources is indicative of violations attempted by the common man. Therefore, the assumption of prudent use of natural resources by traditional societies (Shiva 1991; Gadgil and Guha 1992) is open to debate. At the same time, contrary to the traditional view, the concerns of the state and the means and methods to attain its objectives suggest wider and deeper intervention of the state in the regulation of natural resources. Further exploration of the subject may help in integrating it with the wider socio-cultural milieu of the period.

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Glossary

<i>amil/ fauzdar</i>	official posted at pargana level
<i>Anna</i>	currency, 1/16 th of a rupee
<i>Arhat</i>	water-lifting device
<i>Arhsatta</i>	ledger of accounts maintained at village level
<i>Arzdasht</i>	request written by pargana officials to the ruler
<i>Bad</i>	<i>Ficus bengalensis</i>
<i>Batai</i>	method of revenue assessment/ crop sharing
<i>Bigha</i>	measure of land
<i>Bund</i>	dam/ embankment
<i>Dhenkli</i>	waterlifting device used on wells
<i>ghasmari/ pancharai</i>	tax on cattle owners using grazing grounds
<i>hasil-firohi</i>	revenue realisation
<i>Jhumpi</i>	tax on hut/temporary settlement
<i>Kagad Bahi</i>	revenue document for Bikaner region
<i>Khejri</i>	<i>Prosopis cineraria</i>
<i>Neem</i>	<i>Azadirachta indica</i>
<i>Pargana</i>	district-level administrative unit
<i>Peepal</i>	<i>Ficus religiosa</i>
<i>piwal / piyal</i>	irrigated land
<i>rokad-rakam</i>	non-agricultural taxes realised in cash
<i>thikanadars</i>	nobles
<i>unali/rabi</i>	winter crop
<i>zabti</i>	method of revenue assessment based on actual measurement and realised in cash

Notes

1. One can locate the said fallacy in the early writings on environmental history of pre-modern India. Guha (1983), and Madhav Gadgil and Ramachandra Guha (1992) have highlighted the dislocations caused during the colonial administration by portraying the relative stability in the interaction between man and nature in the pre-colonial era. Richard Grove has questioned some of the assumptions held by Ramachandra Guha and others. He has argued that 'on closer inspection, however, the hypothesis of a purely destructive environmental imperialism does not appear to stand up at all well... Further, it has become clear that there is a need to question the more monolithic theories of ecological imperialism....' Grove 1995:7. However, since none of them use pre-nineteenth century sources they cannot be expected to provide an accurate account of the period under discussion.
2. These herbivores still abound in the region, especially in the area dominated by Bishnois.
3. One can look into Divyabhanusinh (2001) for a critical study of the subject. However, this is an additional reference. Divyabhanusinh has not surveyed these sources.
4. As the environment imposed limitations on resource generation in the region, there were conflicts over distribution of these resources. These limitations compelled the state to extend several concessions in times of natural distress. These documents are very important as they also highlight the various concessions offered by the state in times of distress, the incentives to be offered for rehabilitation of deserted villages, and checking migration due to famine or drought, showing the concerns of the state in this desert region.
5. As quoted by James C. Scott (1985). (The term euphemisation is Pierre Bourdieu's [*Outline of a Theory of Practice*, tr. Richard Nice, Cambridge, Cambridge University Press, 1977, p.191]. The analysis in this ...paragraph relies heavily on Bourdieu's subtle analysis of pre-capitalist forms of domination.)
6. In most pre-colonial societies, a cluster of customs acquires the status of rights.
7. The large area available for grazing must have sustained a large livestock population. Bhadani has calculated the cattle wealth for the period.
8. Dilbagh Singh (1990) argues that, 'the ecological limitations of the region made the need for agricultural inputs [irrigation] considerably higher than in other more favourable located areas...'
9. Similar evidence is available from the following places: village Bilhata, *pargana* Bahatri, 1774 vs./A.D. 1717; *qasba* Jaipur, *pargana* Jaipur, 1798 vs. A.D. 1741; village Deewara, *pargana* Malpura, 1774 vs./A.D. 1717; village Manauli, *pargana* Malpura, 1772 vs./A.D. 1715; *qasba* Malpura, *pargana* Malpura, 1772 vs./A.D. 1715; village Bhabhuvas, *pargana* Bahatri, 1819 vs./A.D. 1762.

10. Similar evidence is available from the following places: village Mahin Nala Khurd, *pargana* Bahatri, 1781 vs./A.D.1724 ; village Brahmanvas, *pargana* Gazi ka Thana, 1807 vs./A.D.1750; village Mahwa, *pargana* Tonk, 1858 vs./A.D. 1801; village Sairora, *pargana* Malpura, 1821 vs./A.D.1764; *qasba* Baswa, *pargana* Bahatri, 1722 vs./A.D.1665; village Maheba, *pargana* Malpura, 1774 vs./A.D.1687.
11. Similar evidence is available from the following places: *qasba* Baswa, *pargana* Bahatri, 1745 vs./A.D.1688; village Jaisinghpura, *pargana* Bahatri, 1775 vs./A.D.1780; village Kalouta, *pargana* Bahatri, 1774 vs./A.D.1717; village Kankroli, *pargana* Bahatri, 1701 vs./A.D.1644; village Nadu, *pargana* Bahatri, 1701 vs./A.D.1644; village Madhubanpur, *pargana* Phagi, 1707 vs./A.D.1650.
12. Similar evidence is available from the following places: village Kankaroli Kalan, *pargana* Bahatri, 1774 vs./A.D.1717; village Dhawani, *pargana* Sawai Jaipur, 1795 vs./A.D.1738; *qasba* Jaipur, *pargana* Sawai Jaipur, 1798 vs./A.D.1741; village Harneri, *pargana* Gazi Ka Thana, 1807 vs./A.D.1750; *Arhsatta*, *qasba* Mariana, *pargana* Mariana, 1812 vs./A.D.1755.
13. Similar evidence is available from the following places: *Arhsatta*, *qasba* Mariana, *pargana* Mariana, 1812 vs./A.D.1755; village Kankaroli Kalan, *pargana* Bahatri, 1774 vs./A.D. 1717; village Dhawani, *pargana* Sawai Jaipur, 1795 vs./A.D. 1738; *qasba* Jaipur, *pargana* Sawai Jaipur, 1798 vs./A.D.1741; village Harneri, *pargana* Gazi Ka Thana, 1807 vs./A.D.1750; village Mohamadpur, *pargana* Chatsu, 1775 vs./A.D.1718.
14. It is a general practice in some parts of India not to eat fish during the rainy season as it broadly coincides with the breeding season. Perhaps fishing was generally prohibited or it might have been restricted to ensure restocking.
15. Sivaramakrishnan (1998) has questioned such generalisations even for the colonial period and points to a clash of interest among and between aristocracy and the colonial power.
16. Village folk opposed mass cutting of trees in the Marwar region, that too of *khejri* trees, which were accorded special protection by the regional influential sect of Bishnois.

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