Chapter 5

Constraints of Environment and Canvas of Dominance

- Social Structure and Resource Management
- Resource Distribution and Patterns of Governance

This chapter delineates the web of relationships between the environment and the social structure. The previous chapters have discussed the broad features of environment of Rajasthan and the possibilities of production under the constraints of such environmental features. This chapter attempts to analyse the role of society in the utilisation of available resources—naturally. In this context, it is here stressed that the social structure shapes the possibilities of resource utilisation. Similarly, the possibilities of production also influence the social structure. This two-way interaction has been dealt in the first part of the chapter.

The later section of this chapter analyses the modalities of resource distribution. The distribution of resources was to a great extent defined by the social structure and stratification. The methods and means of surplus extraction and distribution form the central concern of the later section.

The central feature of the regions remain environmental constraints such as arid and semi-arid conditions, erratic monsoons, famine, etc., which make the regions resource deficient. An analysis of role and function of the state—alongside the ruling classes—in the production process will assist us to highlight the concerns of these classes. This is significant as it points out that the state was fully aware of ecological limitations and consequent decline in production. In the same context, it is important to point out that the limitations imposed by environment also influenced the patterns of governance.

A broad survey of historical evolution has been provided in chapter II. A sketch of expansions of human settlements—colonisation/ re-
colonisation, of various regions of Rajasthan has been attempted in the said chapter. The process of colonisation resulted in interactions between environmental features and society at large. This chapter attempts to delineate the social and political manifestations of such interactions.

However, it must be once again highlighted that environmental features need human mediation to become socially useful resources. Hence, the mere availability of land was not sufficient. The crucial element was the social organisation that could convert environmental features into socially productive resource. The distribution of these resources would develop political system.

The resource potentialities of various parts of Rajasthan have been discussed in chapter III. The agricultural production in Rajasthan was very uncertain due to vagaries of environment. The semi-arid and arid nature of environment made agriculture greatly dependent upon Monsoons. As the Monsoons were very erratic the need for irrigation was compensated by artificial irrigation, wherever conditions allowed. Apart from salt there were not many article for trade. Poor resource base of both arid and semi-arid parts of Rajasthan had implications for the state and society and also influenced the pattern of social relation.

The distribution of human settlements in various regions attains prime significance for any exploration on these lines. Discussions in the previous chapter points that environmentally inhospitable region of western Rajasthan had a very low population density as compared to southern and south-eastern regions influencing the social structure.

To explain the influence of environmental features on stratification in social structure, it is necessary to examine the composition, functions and stratification of village society and their inter-relationships. Society in medieval Rajasthan was socially and economically stratified. The dominant sections of
the village society was composed of various strata of the rural aristocracy (viz., the jagirdars, bhomias, patels, chaudharies, qanungo etc.) who owed their status partly, to hereditary superior rights in land and also partly, to their position in the apparatus of revenue administration. From the point of view of the production process, the most important sections of the village society were the cultivators, who were collectively referred to as hal jot\(^1\) in the documents. There were other occupational classes – kamin etc., who could also engage in cultivation.

In the arid western Rajasthan, a village consisted of three categories of peasants: resident, non-resident and subject peasants. The term asami (revenue payer) was applied to all categories of peasants: ganveti (resident cultivator), pahi and osari or bahrula gaonra (non-resident cultivators), Resident cultivators (ganveti) consisted of muqati or pasaiti and raiyati or karsa.

Muqati / pasaiti were the privileged class of peasants, while the raiyati and karsa were revenue payers in the village society. Muqati and pasaiti were known as gharuhala in Eastern Rajasthan. The peasants who belonged to the higher castes enjoyed certain concessions in the revenue. The ordinary peasants who belonged to middle castes, known as raiyat and karsa paid land revenue at normal rates.\(^2\)

In eastern Rajasthan, the cultivators were basically divided into two groups; (a) khud-kasht literally meaning ‘self cultivating’, but meaning actually those who cultivated land themselves or had it cultivated by hired labour; and (b) to raiyat-kasht (peasant cultivating their own land) and pai-kasht (non-resident or migrant cultivators). Term gaonveti (resident

\(^1\) Dilbagh Singh, The State, Landlords and Peasants, New Delhi, 1990, p. 16.
cultivators), which included both the khud kasht and the raiyat-khast peasants is also frequently used in the documents.

The term khud-kasht conveyed a certain element of occupancy rights. They often had their dwelling within the village and cultivated with their own ploughs (gharoo-hala). They were expected to cultivate the land and pay the revenue. The essential feature of khud-kasht tenure was the use of personal plough (ghar-ka-hal) and bullocks for tilling land and ability of provide other necessary capital inputs. The number of ploughs owned by peasant was a measure of his status.

The peasants were sub-divided on the basis of caste, occupation and status. They were either riyayatis or raiyatis. Riyayatis either belonged to the upper castes or were patel, qamungo and chaudharies. They were offered several concessions in revenue demand. The concessions to riyayatis were offered with certain duties on their part. For example, it was obligatory on the part of Rajput riyayatis to maintain one musket per plough and render military service to the king on demand for a stipulated period of time (normally ten days) during each harvesting season. Similarly, the brahman riyayatis were expected to recite Gayatri mantra.

Apart from these there were also other important considerations as to why the state extended concessions to the riyayatis. It relates to the use of productive labour of the family which determined the extent of hired labour to be obtained for agricultural purposes. The reliance on hired labour was necessitated not entirely due to unequal distribution of land. It was also a

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significant social phenomenon. As the high-caste women did not work in the field and the brahmans and the rajputs would not plough the land themselves, the use of hired labour in their case was indispensable. To compensate the cost of hired labour the riyayatis were offered concessions. Riyayatis were also known as gharoo-hala.

Riyayatis on the other hand belonged to middle or lower castes and were also known as palti. Paltis were the most important section of rural society as this class contributed to the revenue most. The paltis could not sell or give their holdings on farm (ijara) to others. This perhaps formed an important difference between them and the khudh-khshta peasants.

Besides these designated groups of peasants, there were those who had no right over land or crops. They were labourers being sometimes called gunwars. They generally belonged to non-peasant castes, such as barbers, teli, mali, etc. They could be compelled to render forced labour (begar) for agriculture by the upper village strata.

Another category that of the pais (pahis) comprised those peasants who cultivated lands in village/s other than their own. Their rights differed from region to region. They were sometimes encouraged by the state to come and settle in new villages. In such cases, pahis were provided with ploughs, bullocks, seed, manure and money etc. In normal times an attempt was made

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5 Gupta, S. P., Op. Cit., p. 120. Therefore, Palatiyas would seem to mean new agriculturist with in the village. We may thus treat the Paltis as migratory cultivators or temporary cultivators.

6 ibid., p. 122.

to induce the *pais* to take up cultivation of wastelands or to populate new villages or such villages as had been deserted due to natural calamities.

In Marwar region, two kinds of *pahi* are found. One consisted of those who were complete outsiders i.e. they did not have any kind of relationship with the village where they intended to take up cultivation. The other kind of *pahi* cultivated the land of a village attached to the one in which they originally resided. Generally they appear to cultivate lands of deserted villages, but sometimes also in big villages where sufficient numbers of cultivators were not available.

The *pahis* in Marwar were assessed in two ways: either regular assessment was made on them or a lump-sum amount was fixed. In case of lump-sum payment, the amount fixed per-plough seems to have been lower than even for the high caste *muqati* or *pasaiti*. In a village of Jodhpur, the *pahi* cultivator used to pay Rs.10 as *muqata* (lump-sum payments), which was 10% of the estimated income (*rekh*). This was a substantial concession and it should have been enough to lure the outside peasants.

The terms and conditions offered to the *pahis* are significant in that the *pahis* were required to pay the land revenue at lower rate compared to the *gavetis*. It signifies that land was available in plenty and needed human intervention to cultivate and yield revenue. More importantly the fact that the method of assessment on the *pahi* holdings was made on the basis of number of plough used in cultivation highlights two important things: firstly the land was available in such a quantity that its measurement for land revenue was considered of no significance.

The state was more concerned with the agricultural production which *pahi* could develop with the help of his tool- plough. Hence the unit of measurement became the size of land that was cultivated by the man – *pahi* with the help of his labour and tool. This once again helps us in our formulation
that natural physical resource was of no use for society unless mediated by man and his plough.

One can postulate that by extending such lucrative terms to *pahi*, state was encouraging the peasants of neighbouring areas to settle in their own. B.L. Bhadani has calculated the percentage of *pahi* in cultivated villages as described on the basis of information furnished in Nainsi’s *Vigat* and presented in table no. 12.8

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Pargana</th>
<th>Total Villages</th>
<th>Villages (containing <em>Pahi</em>)</th>
<th>Percent of <em>Pahi</em> Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Siwana</td>
<td>144</td>
<td>21</td>
<td>14.58</td>
</tr>
<tr>
<td>2</td>
<td>Merta</td>
<td>384</td>
<td>35</td>
<td>9.11</td>
</tr>
<tr>
<td>3</td>
<td>Pokaran</td>
<td>61</td>
<td>8</td>
<td>13.11</td>
</tr>
<tr>
<td>4</td>
<td>Phalodi</td>
<td>67</td>
<td>10</td>
<td>14.92</td>
</tr>
<tr>
<td>5</td>
<td>Jodhpur</td>
<td>1167</td>
<td>35</td>
<td>3.00</td>
</tr>
<tr>
<td>6</td>
<td>Sojhat</td>
<td>244</td>
<td>6</td>
<td>2.46</td>
</tr>
</tbody>
</table>

The highest percentage of villages where *pahis* worked was in *pargana* Phalodi, Siwana and Pokran, while the lowest was in Sojhat and Jodhpur. One may venture to formulate that ordinarily *pahis* were found more in those *parganas*, which were less fertile and thus had larger cultivable land but were more sparsely populated9 than those of prosperous and populated ones were. It is perhaps due to better concessions extended to *pahis* in the arid and inhospitable part of Rajasthan.

In order to induce the *pais* to cultivate new land, *pargana* officials were vested with a number of powers. They could grant *pattas* of *vat-vih* (sharing of crops) at concessional rates, usually one-fourth of the produce, to *pais* coming

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8 ibid. p. 118.

9 ibid.
from other parganas or adjacent areas'. Such grants of pattas were generally made for parat or waste lands. The practice of inducing the pais to cultivate parat land was another mechanism to convert available natural, physical resource into a materialistic resource base. pais were encouraged to cultivate wasteland – initially on concessional rate – so as to enlarge the area under cultivation.

There is some very interesting information regarding the ijafa in each village. The ijafa signified additional peasants including paltis being settled together with his cattle. The migration generally took place from the neighbouring qasbas and parganas; some migrants had previously been “servants” (naukar) elsewhere. But some were previously wage labours (majur), which had now obtained bullocks and were able to set up as peasants. Quite obviously, land was available but the possession of cattle and tools was very crucial pre-requisite for starting cultivation. The ownership of means of cultivation also helped in gaining higher social status in the rural society.

The stratification of village society also reflected in the system of taxation where numerous concessions were offered to various section of society. Caste and caste- related privileges were no less significant in western Rajasthan. B. L. Bhadani has pointed out that “In pargana Jalore, the size of the demand varied on the basis of the caste of the assesses. The land revenue demand was fixed at rate of one-fourth where the banias, ghanchis (oil pressers), sabugar kumbhar, pinjaras (cotton carders) were the revenue payers.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Caste</th>
<th>Share of the Crop (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rajputs</td>
<td>14.3</td>
</tr>
<tr>
<td>2</td>
<td>Banias</td>
<td>22 to 22.5</td>
</tr>
<tr>
<td>3</td>
<td>mahajans</td>
<td>22 to 22.5</td>
</tr>
<tr>
<td>4</td>
<td>Karsa</td>
<td>22.5 to 25</td>
</tr>
<tr>
<td>5</td>
<td>Brahman</td>
<td>20.0</td>
</tr>
</tbody>
</table>
With the ‘expenses’ incurred on collection of land revenue, the demand on these castes came to one-third of the produce. Only one-fourth was realised from the Rajputs”. The shares of produce taken in revenue from the various castes illustrate this and classes of revenue payers in *pargana* Pokaran as given in Nainsi, and in *pargana* Jalore as recorded in the Jalore Vigat. The table nos. 13 & 14 indicate the difference in revenue demand.

### Table No. 14

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Assessee Caste</th>
<th>Revenue Realisation Including Other Taxes (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bania</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>Ghanchi</td>
<td>33</td>
</tr>
<tr>
<td>3</td>
<td>Sabugar</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>Rajputs</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Mehtar</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Mali</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Pinjara</td>
<td>20</td>
</tr>
</tbody>
</table>

Similarly, B. L. Bhadani cites information from Vigat for *Pargana* Pokaran: “the demand was fixed on various castes at different rates in both harvests. In the *kharif*, *(sawnu)* *bhog* was fixed on the *banias* and *mahajans*, at the rate of 22 to 22.5% of the produce and the other cultivators *(karsa)* at 22.5 to 25%. From the *banias* and the *mahajans*, ‘expenses’ *(kharch-bhog)* amounting to 6-1/4 *Sers* over and above the land revenue were levied; from the *karsas* (cultivators) the same was realised at the rate of 7⅓ *Sers* per man. This means that while for the *banias* the land revenue including the *kharch-bhog* amounted to almost half of the produce, this limit was exceeded for the ordinary peasants”.

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At the same time in Jalore, the highest rate of demand was 25% of the produce, which was levied on the banias, ghanchis, sabudar, Kumbhar and pinjaras. If we add the expenses incurred in collection of land revenue, their total liabilities came to 33% of their produce. The higher social status enjoyed by Rajputs can be visualised by the fact that revenue demand was lower for them.¹¹

S.P. Gupta has highlighted that the incidences of land revenue demand upon different castes/strata of society varied according to caste and status. The land revenue was imposed at much heavier rate upon the raiyat and palti than upon the upper strata. The strata that paid land revenue at concessional rate also enjoyed several privileges.¹²

Dilbagh Singh has pointed out the same practice. A differential scale of revenue demand was applied to the privileged and unprivileged cultivators. The differentiation was based on caste the privileged being charged less.¹³ The cultivators belonging to the upper castes were known as riyayati. For revenue purposes they were assessed at concessional rate, perhaps, due to their superior resource position. Better resource position helped them to harness the production potential in these environmental features which necessitated greater capital inputs to develop agricultural production. State demand on their land amounted to only one fourth of the total yield, while other ordinary cultivator (raiyati-kasht) paid the revenue varying from one-fourth to one half.¹⁴ Dilbagh Singh has pointed out a very significant feature of these concessions, “The

¹¹ ibid. p. 212.
¹⁴ ibid., p. 21.
privileges 'went with the person rather than with his land'. The riayatis retained the concession even on lands leased to him by another land owner not so entitled, but they ceased to be operative if the riayatis leased out his own land to one whose status had not earned him this privilege'.

Further, delineation is required of the fact that the privileges went with the person rather than with the land. Any further increase in the size of land holdings owned by riayati at the cost of land holdings owned by raiyati would have amounted to corresponding loss of revenue to the state. The primary concern of state being the stabilisation of revenue base, it was a generally prohibited to convert raiyati land to the riayati category. The cultivable waste in the village was also reckoned as raiyat land and so long as raiyati peasants were available, gharuhala could not expand his holdings over such lands. Such a practice once again highlights the mechanism through which resource base of state could be expanded. It was a mechanism through which state tried to appropriate greater share of resources.

The prevalent economic disparity among various social classes emerges from the analysis of size of holdings possessed by peasants. The pattern that emerges from the three villages of Jalore is that the holdings of upper caste peasants are larger compare to other caste peasants. For example, village Piplod, pargana Tajpur 1808, kharif harvest, there are recorded 122 asamis. Of these, 4 held between 10 to 20 beeghas. Of the top, four villagers one was a patel, one was a mudro maewari (bania), and two telis. 11 cultivators cultivated from 5 to 10 beeghas each. The remainder - as many as 83 villagers -

\[\text{15 ibid., p. 17.}\]
\[\text{16 ibid., p. 19.}\]
cultivated less than one bigha each. Thus we can say that clearly, traditional power and caste lay behind much of the stratification.\(^{17}\)

The economic disparity prevalent in the society is also reflected in a reference contained in Jama Kharch mauza Saluno dated 1774 vs. There were 20 karsas in the village who had holdings varying in size from 8 to 200 beeghas. Four karsas cultivated more than 100 beeghas each, 8 cultivated 50 to 80 beeghas, and 6 from 20 to 30 beeghas and 2 merely 8 beeghas.

For the Kota region Madhu Tondon has pointed out that the region had highly stratified society. She has presented the details of size of land holding with various sections of society. It is presented in the table no. 15\(^{18}\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Household</th>
<th>Total Land in Beeghas</th>
<th>Number of Bullocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holding upto 60 beeghas</td>
<td>169</td>
<td>2859</td>
<td>74</td>
</tr>
<tr>
<td>60 to 120 beeghas</td>
<td>35</td>
<td>3570</td>
<td>103</td>
</tr>
<tr>
<td>120 to 180 beeghas</td>
<td>15</td>
<td>2218</td>
<td>48</td>
</tr>
<tr>
<td>180 to 240 beeghas</td>
<td>4</td>
<td>932</td>
<td>21</td>
</tr>
<tr>
<td>240 beeghas and above</td>
<td>4</td>
<td>1297</td>
<td>24</td>
</tr>
</tbody>
</table>

The harsh environmental conditions of Rajasthan necessitated capital investment to sustain agricultural production. However, an analysis of ownership of key agricultural assets like plough, bullock, Persian wheel, by individual cultivators point out economic disparity prevalent in the society. For pargana Pinyan, Dilbagh Singh has calculated that, ‘there were 423 ploughs and there were a total of 315 gavetis and 76 pahis.

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Therefore, on a rough average each cultivator had at his disposal slightly more than one plough, which would have been sufficient only for cultivating a marginal holding, the *gavetis* being in a better position than the *pahis*. The individual breakdown was as follows:

<table>
<thead>
<tr>
<th>Ploughs</th>
<th>Held by</th>
<th>Cultivators</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1 cultivator</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1 cultivator</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>25 cultivators</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>350 cultivators</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>33 cultivators</td>
<td></td>
</tr>
</tbody>
</table>

This means that the better-off section, i.e., those with more than two ploughs formed only about 1 per-cent of the total number of cultivators, the middle section 6 per-cent and the poor section formed about 93 per-cent.\(^{19}\)

For the Harauti region, documents furnish information on the patterns of ploughs owned by *karsas*. In mauza Jholpa, 244 ploughs were distributed over 82 *karsas*, giving an average of 3 ploughs per head. However, the image undergoes a change if we consider individual cases. It shows that 13 *karsas* had less than one plough, 13 had up to 2 ploughs, 50 possessed 3 to 5 ploughs each and 5 had more than 5 ploughs whereas 2 Jat *karsas* possessed 33 ploughs each.\(^{20}\)

The significance of number of ploughs owned by peasants is self-explanatory, as a greater number would ensure greater capacity to cultivate

\(^{19}\) Singh, Dilbagh, *The State, Landlords...*, Op. Cit., p. 34.

\(^{20}\) DSA- KR. Dusri Manzil Basta No. 41 Jhado *Pargana* Barsana ko Mauza Jholpo, 1856 vs.
more land. However, the significance of number of bullocks in cultivation can be realised from the following popular saying:

Cultivating with one plough unit was a liability while two plough units were gainful employment, three plough units were proper cultivation and four plough units were a source of power. It very aptly relates the numbers of ploughs with economic power.  

The ownership of number of bullocks is also very important indicator of economic status and closer analysis point out the economic disparity. In *pargana* Chatsu 2448 *asamis* owned 6200 bullocks with an average of 2.5 bullocks per asami. However, the actual distribution of bullocks was quite unequal. 24% *asamis* had one bullocks, 44% *asamis* possessed 2 bullocks, 15% *asamis* owned 3 bullocks, 8% *asamis* were owner of 4 bullocks and remaining 9% *asamis* had more than 4 bullocks.  

Similarly, in *pargana* Malrana there were 2195 *asamis* sharing 5988 bullocks. The individual ownership of bullocks is as follows: 12% *asamis* had 1 bullock, 45% *asamis* owned 2 bullocks, 23% *asamis* possessed 3 bullocks, 10% *asamis* had 4 bullocks and remaining 10% *asamis* owned more than 4 bullocks. 

The economic disparity is visible even in terms of caste of the peasant. The number of bullocks owned by various castes of rural society. 

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22 *Arshattas, Pargana* Chatsu, 1666 vs. Jaipur Records, Historical Section, Rajasthan State Archives, Bikaner. Henceafter, HS. JR. RSAB.  
23 ibid., Malrana, 1666 vs. HS. JR. RSAB.
Table no. 16 shows the number of bullocks owned by various castes for *Qasba Chatsu*:24

<table>
<thead>
<tr>
<th>Caste of Asami</th>
<th>Number of Asamis</th>
<th>Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mali</td>
<td>70</td>
<td>133</td>
</tr>
<tr>
<td>Gujar</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Teli</td>
<td>28</td>
<td>51</td>
</tr>
<tr>
<td>Brahmin</td>
<td>51</td>
<td>115</td>
</tr>
<tr>
<td>Lodha</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Kumhar</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Kayastha</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Rajputs</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Deswali</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Meena</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nagori</td>
<td>14</td>
<td>35</td>
</tr>
</tbody>
</table>

S.P. Gupta has also highlighted the economic disparity by calculating the numbers of bullocks owned by different castes. It is

<table>
<thead>
<tr>
<th>Caste of Asami</th>
<th>No. of Asamis</th>
<th>Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patel</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>Patwari</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Jat</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Ahir</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>Na’I</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Gujar</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Brahman</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Kumbhar</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Teli</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Chipro</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Kharwal</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Miscellaneous Caste not given</td>
<td>62</td>
<td>185</td>
</tr>
</tbody>
</table>

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represented in tables number 17 and 18.

Table No. 18
Caste wise Break-up in Mauza Pachal

<table>
<thead>
<tr>
<th>Caste of Asami</th>
<th>Number of Asamis</th>
<th>Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patel</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Jat</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Brahman</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Khati</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10</td>
<td>35</td>
</tr>
</tbody>
</table>

In this context, the references to Persian wheels and other water-lifting devices are very significant. In Rajasthan, possession of land was not enough, the availability of artificial irrigation mechanism was also necessary to stabilise and increase production. The cultivators who owned wells were able to grow superior food crops and cash crop like cotton, as these crops required regular and frequent water supply.

The significance of artificial irrigation device is clearly brought out from the statistical account of the parganas of Marwar as provided by Nainsi. He has enumerated not only the mechanisms of irrigation for villages but also the number of such mechanisms.\(^{25}\) The significance of irrigation devices can be inferred from the evidence that villages given on Patta were classified according to the availability of irrigation device in the villages.\(^{26}\) State was well aware of the potential of irrigation devices in surplus availability from any given region. The ownership of these devices was confined to the upper strata of society. It can be inferred that other cultivators might have utilised Persian wheel on rent. This is strengthened by the evidence provided by the Qamungo


\(^{26}\) Sanad Parwana Bahi, No. 2, 1822, vs. Jodh. Rec. RSAB.

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Bahi, which records that there were more than one pair of bullocks (bhaoli) attached to a Persian-wheel, and the owners of these were different asami, except for one pair which belonged to the Persian wheel owner. It means that the owners of the bullocks did not own the contrivance, and they irrigated their fields with the water-lifting machine belonging to some other asami.\(^\text{27}\)

As pointed out above the irrigation mechanism was an economic asset. These could be purchased, sold, or mortgaged by the owner. As ownership was an economic asset, so it was also a criterion of social status. Generally, the ownership of these confined to upper strata of society who had enough capital to dig the well and construct the relevant mechanism to harness it’s potential. The importance of irrigation can be gauged by comparing the productivity of irrigated and non-irrigated lands. Madhvi Bajekal has calculated that in 1713-14 AD, the differential in the yields of irrigated and non-irrigated rabi food grains was estimated to be 6.75 mounds per bigha and 3 mounds per bigha respectively.\(^\text{28}\)

At the same time it is important to note that the kinds of crops grown by various sections of society also highlight the economic disparity prevalent in the society. The majority of the upper caste peasants raised cotton and other cash crops. Two Rajput peasants raised cotton on 75% and 60% of land they cultivated respectively.\(^\text{29}\) However, it is very significant that the size of land holdings broadly corresponded to the agricultural resources in terms of


ploughs, seeds, Persian-wheel and cattle. Peasants with adequate resources only could raise crops meant for market.

It has been argued that the zamindars, revenue grantees, revenue officials and village headmen were endowed with a greater command over resources that enabled them to produce cash crops for markets. The possible cause for this might be the availability of capital for investment, and the ability to take risks involved in the production of commercial crops. Whereas ordinary peasants were unable to cultivate cash crops because these generally required a larger investment than an average peasant could afford.30

The above discussion very clearly points out that harsh environmental conditions of semi-arid and arid parts of Rajasthan necessitated a greater capital investment. The social distribution of various agricultural assets – size of land-holdings, bullocks, irrigational devices, etc., was highly unequal and it was reflected in the social stratification. The ownership of these assets greatly affected the production capabilities of different sections of the society. The capability of various classes to invest capital in agricultural production greatly determined the output and in this respect, economic disparity played a crucial role. Even though the environmental constraints were same for various section of society, classes with capability to invest in agriculture received higher and secure returns.

The economic disparity was compounded by the recurrent visit of drought in Rajasthan. The drought undermined the limited capacity of lower classes to continue agricultural production without borrowing heavily. In a period of prolonged environmental disturbance, only those peasants who could

secure loans against productive or advantageously located land were able to obtain credit. However, in the context of social stratification it is necessary to point out that the paltis were losing title to land through the mechanism of mortgage. This is reflected in the frequent references to the reductions in the raiyati- held lands.

The mortgage of lands was not a new feature, but the distinguishing feature of the second half of the eighteenth century was that the paltis lost their land to the gharuhala cultivators. The paltis of qasba Phagi, Ajabgarh, Tonk, Chatsu and Pahari complained that the gharuhala cultivators, through mortgage, have acquired their land.31

The extent of decline in the resources of paltis was significant – in qasba Pahari the number of ploughs owned by paltis declined from 300 plough to 50 in 1760, in qasba Chatsu from 300 to 175 in 1760 and in qasba Phagi the number of ploughs from 700 in 1753 to 28 in 1764. The decline might have been due to increased mortality and migration during the famine years, but as they themselves claim in their petitions to the diwan, a significant number had been forced to pledge their land as collateral for loans taken out.32 This highlights that even during the normal years, ordinary peasant required capital to sustain agricultural due to harsh environmental features.

The limitations imposed by environment were compounded due to economic disparity. Along with those paltis who lost their lands to well-off sections of society, the position of raiyati cultivators who were able to retain the ownership of their land was deplorable. As privileged riyayatis were

exempted from contribution to the common fund known as *malba*, while *raiyanatis* were supposed to contribute the entire amount. However, with the gradual loss of title of land to the *raiyanatis* and the decline in the number of *raiyati*, remaining *raiyanatis* were expected to share the entire amount. For example, a petition filed by the *raiyanatis* of *gasba* Phagi, complained that whereas earlier the *malba* was levied on 700 ploughs owned by the *raiyanatis*, now the entire amount was levied on approximately 28 ploughs owned by them.33

Thus, it can be said that the environmental constraints affected different sections of society differently. For example an *Ardhash* dated Kartik Sudi 11, 1742 vs., informs that due to drought, there was insufficient production of the Kharif crops in *pargana* Bahatri. It resulted in famine like situation and *raiyat* has become economically vulnerable and have even nothing to eat.34 In *parganas* Averi, Antela, Gazhi Ka Thana. Pahari, Toda Bhim, *raiyat* is in destitute conditions due to drought and famine and do-not have grains even for consumption.35 Similarly, the amil of the *pargana* Phagi reported to the *dastur* that the *raiyat* in the villages of the *pargana* were not in position to till their entire holdings and had been cultivating only a part of the holdings. The land abandoned by them was being cultivated by the riyayatis with the help of the labourers. Though the cost of production on such lands went up on this account, the concessional rate of revenue made cultivation affordable. In the face of such situation the state had no option but to permit the riyayatis


34 *Ardhash*, Kartik Vadi 3, 1742, vs.; Kartik Sudi 13, 1743 vs. *Ardhash*, Sawan Sudi 13, 1740, vs. HS, JR, RSAB.

35 *Chitti*, Chait Sudi 6, 1783 vs. DDH, JR. RSAB.
cultivators to continue agricultural operation on raiyati land on payment of concessional rates. 36

It is evident that the richer section of the cultivator added to their assets by appropriating land mortgaged by the raiyat. At the same time, the depletion in the resources of the poor peasants led increasingly to a greater degree of agrarian dependence. 37

To check the growing tendency on the part of the richer sections (riyayatis) to extend land held under privileged gharuhala tenure, state gave clear instructions to the revenue official to get more land cultivated by the Pahis and raiyatis, rather than by the riyayatis. This was also applicable to newly colonised village and old deserted villages, which had been rehabilitated. The official practice of promoting cultivation by pahi and raiyat and a curb on the riyayati wishing to extend their gharuhala holding at the cost of raiyatis, was motivated by a desire to enhance state revenue. 38 The extension of privileged land was restrictive, as it would have cut into the state’s share from agriculture. Any attempt on the part of administration to alter the customary rates met with potential threat from the riyayatis to abandon cultivation. It is was time and again brought to the attention of the higher state authorities that the riyayatis were in possession of the best agricultural lands in the villages and were capable of pursuing agricultural operations even in the lean years when the majority of the raiyati had either migrated or given up their holdings. Thus it can be said that the state insisted not to alter the tax status of such lands so that its revenue were not affected.

36 ibid., to the amil Pargana Phagi, Chait Sudi 8, 1789 vs. DDH, JR. RSAB.
38 ibid.
State's attempt to increase the income from agriculture is clearly evident from the following example. "In khalisa villages, a raiyati dhani had the obligation to cultivated his entire holding, if the failed to do so and could not tender any valid reason, he had to pay revenue on the entire land. Default or desertion of village invited confiscation of the land by the revenue official or by the assignee as the case might be." 39 This shows that cultivation on land was the prime concern of state, and if that can be achieved by securing normal revenue, was considered best.

Analysis of the land and said stratification pattern in both the broad geographical divisions of Rajasthan clearly highlight that land was available in abundance but cultivators, means of cultivation and means of irrigation played a decisive role. In other words, the lack of capital with the primary producers was a major constraint in the expansion of cultivation. As such, there were limited possibilities for development and sustenance of agriculture in the arid region, even with the availability of capital. The agricultural output varied a lot even in the normal years. The environmental features constrained agricultural production as Monsoons were erratic in the region. The cost of construction of well or installation of water lifting devices thereupon was capital intensive. At the same time the recurrent drought and accompanying famine often eliminated the meagre resources – bullocks, seeds, etc.- possessed by the peasantry.

The adverse effects of climatic conditions on the production possibilities could be mitigated with the ingenuity of human interference. If the conditions so provided, the introduction of better techniques could have lead to better results. The geography of the region was conducive for cultivation of cash

39 ibid.

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crops, but required input, either in form of human labour or technological support (dependable means of irrigation).

The above discussion clearly points out the need for greater capital investment to sustain and develop agriculture in the region. At the same time, we have already pointed out the economic disparities prevalent in the society making lower classes search for credit to expand or restore cultivation.

To sustain agricultural production in the semi-arid and arid region, means of irrigation were needed. We have discussed in chapter 3 that the cost of construction of masonry well was beyond the capacity of a common peasant. Lack of resources and frequent visitations by drought and famine led to a growing need for credit on part of the raiyati and other weaker sections of society.

This brings another section of society- mahajan, moneylender in picture. In eastern Rajasthan they were popularly known as bohra. He was the source of capital for ordinary peasant even in times of distress. Moneylender, extended loans to peasantry at very high rate of interest and peasantry had to accept it, as there was no other option. The peasants could obtain a loan from mahajan either against the mortgage of their property or against malzamini (surety) furnished by the village zamindar, patel or jagirdar.40

The loan was sought to procure the means of cultivation- seed, manure, plough and bullocks and during famines loans were offered even for subsistence. "In many cases the peasant indebtedness was collective

and we find the entire ryots of villages borrowing money from the bohra to purchase seeds, manure, ploughs and bullocks so that they could cultivate the fallow lands of the village, construct ponds and dig wells. The ryots had to pay the debt at the time of next harvest with interest usually through their traditional representatives, the zamindars or the patels. In one instance we find that the moneylender demanded repayment of grain advances made at the commencement of the sowing season in form of raw cotton after the harvest.

The indigent peasants, usually the paltis and a category of pahis, were wholly depended on the mahajan for the resources needed for cultivation. The mahajans provided such loans to the peasants on various conditions. It is quite evident from the following example: the ryot of qasba Mauzabad borrowed bullocks, ploughs and seed from bohra. The subsistence loans were also sought by peasantry and extended by bohras. For instance, in the village of Sitarampur, pargana Fagi, we find that paltis borrowed money from bohra to procure seed and subsistence. At times mahajans rented out their ploughs and bullocks and charged interest on lending seed and subsistence after commuting their prices in cash.

During famine or any other natural calamity when recovery of loan seemed difficult, the moneylender demanded security by the bhomia or State. In 1743, the amil of pargana Malpura complained that despite a fortnight of uninterrupted rains in the month before the sowing of the

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41 ibid.

42 Chithi, Phalgun Sudi 13, 1784 vs., Pargana Malpura. DDH, JR. RSAB.


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kharif crops, the bohras were not coming forward to provide seed-loans to the cultivators as the previous year had been one of drought. 44

Similarly, in western Rajasthan the peasantry was resource deficient. The need for resources for production was catered to by the mahajans. At times peasants felt hard pressed for money to pay the land revenue and to continue cultivation, particularly in famine years. 45 The rulers of Marwar offered a certain amount of patronage and protection to mahajans, as even the state was aware of their importance. 46

The harsh environmental conditions imposed constraints not only the agricultural production but also on surplus generation. In medieval Rajasthan, the ruling class could not afford to be contended only with the extraction of agricultural surplus because the environmental constraints limited even the primary source of surplus collection, i.e., agricultural production. Thus, medieval states of Rajasthan were very much concerned with the extension of agricultural production.

The distribution of resources and the social stratification is very closely related with the process of emergence of Rajput polities. Colonisation of newer land was achieved with the help of kin. 47 The history of political developments influencing the evolution of social structure has been discussed in chapter II. However to explain the possible relationships between environmental constraints and social structure, a
brief survey of social stratification is attempted. The role and function of various privileges granted to various strata of society will enable us to explain the role of environmental features in influencing/ shaping these practices.

It is evident from the very process of the emergence of clan-states in Rajasthan that clan relations played a very crucial role. Clan was the most important factor in the establishment and expansion\(^{48}\) of territory of any Rajput clan state. Thus, the distribution of power and resources was based on kinship (*bhai-betas*) and clan relations.

At times, in the process of expansion of territory, the rulers allowed sons and brothers to occupy and/or conquer territories – *khali-Desh*, that either had limited habitation or lacked strong political power. There are references to the occupation and colonisation of Phalodi, a *khali-des*, by Nara, the son of Rao Suja Rathor, the ruler of Jodhpur.\(^{49}\) Similarly, he granted Jangal Des to his brother Bika who had to conquer it.\(^{50}\) Merta designated as *khali-des* was granted by Rao Jodha to two of his sons Duda and Bir Singh to settle. They colonised the region with the help of Jat chaudharies from the adjacent areas.\(^{51}\) The transformation of *khali-des* into a clan thakurai or monarchy also implied its, colonisation, thereby changing the whole connotation of the term. This practice of grant of territory was called *bhai-bant* because being members of same clan, they believed that it was their share in co-operative efforts of the clan. Though accepting the sovereignty of the chief of the ruling clan, the


\(^{50}\) ibid., p. 38.

\(^{51}\) ibid., p. 36.
sardars treated him just as *primus-inter-pares*. It was more so because they had very actively participated in the very process of colonisation of newer land and hence, expected a fair share in the clan-dominated territory. 52

It was a society in which lineage structure was the framework of political system. The polity and kinship systems were intermixed which implied empowerment based on family ties. The structure was hierarchical and crystallised with the passage of time. At the top was the ruler, who was head of the clan and had acquired the territory and established the principality; then came the *thikanadars* (nobles) who were his brothers and sons or *sagas*. The pattern of relationship between them kept on defining itself according to the needs.

As discussed in earlier chapters, owing to limitations imposed by meagre resources, the head of the clan (the ruler) was always busy in either expanding or defending his territories. Thus, warfare had become not merely an occasional duty but a fundamental requirement. Obviously, the centrality of war ethos influenced the community life, economy, political alliances and cultural patterns. 53 The ruler needed armed followers and companions for his military activities. Army, maintained on the basis of clan relationship was the only viable alternative. 54 Therefore, each head of the clan (ruler) provided territories called *thikanas* to his kin. The recipients were supposed to perform


53 It is very much evident from the ongoing feud between various States of Rajasthan, to secure greater privileges/benefits from the Mughal Empire. The process of placement of *Diwan* at Mughal court and his efforts to secure those *pargana* which were more productive, is one such example.

54 They could not maintain centralised recruited army due to resource constraints and social constraints.
military services. Grant of *thikana* was pragmatic recognition and compensation to *thikanadar* in lieu of his military services.\(^{55}\)

In the case of Marwar, “Rao Jodha made sub-assignments exclusively to his blood relations (*bhai-bant*). But Maldev, being a powerful ruler, could not accept a position of being the first among equals which the concept of *bhai-bant* implied. He therefore, asserted his supremacy over his clansmen (*bhai-bant*) and treated them as clan retainers (*bhai-bandh-chakar*). The use of Persian word *chakar*, meaning servant, indicated the subordinate position of the assignees. ... The assignment policy adopted by Maldev created resentment among *pattayats*.”

The numbers of soldiers, to be supplied by Jagirdars were determined in relation to their *jagir* according to a well-settled scale. During the 17\(^{th}\) century, the Rathor rulers adopted more or less the same system of assignment as prevailed in the Mughal Empire. The larger part of the territory was divided into various *pattas*.\(^{56}\) Like the Mughals, the Rajput rulers also did not adhere to clan exclusiveness in recruiting *jagirdars* in the state service,\(^{57}\) but clan still retained its importance.

The *jagirdars* can be divided in two categories, *tankhaw jagirs* and *ghar baithan ki jagir*. The majority of the civil and military officials preferred the payment in form of revenue assignments. In the case of Rajputs, it tended to become hereditary. Apart from obligatory military services the assignee were required to pay a fixed annual *peshkash*. The *ghar baithan ki jagir* did not carry

\(^{55}\) Bhadani, B. L., Op. Cit., p. 239.

\(^{56}\) ibid., pp. 235-36.

with it any service as it was awarded in recognition of exceptionally meritorious and outstanding service rendered by the holder. Initially it was awarded to a person, but gradually, it was converted to hereditary right.\textsuperscript{58}

The next class in social hierarchy was that of bhomia. The bhomia were landlords of a variegated class, ranging from the Rajput chiefs, his nobles to the petty landowners at the village level. Bhomia were also known as zamindars. As pointed out by Colonel Tod, “The Bhoomia does not renew his grant, but holds on prescriptive possession. He succeeds without any fine, but pays a small annual quit-rent, and can be called upon for local service in the district, which he inhabits for a certain period of time. He is counterpart of the allodial propertier of the European system, and the real ‘zemindar’ of these principalities.”\textsuperscript{59}

Bhomia were divided in two groups. The first category belonged to the kith and kin of the rulers. These rights were given to them in the recognition of meritorious services performed by them in the initial phase of consolidation and expansion of territory of state. The territory under their control was also termed as watan zamindari.

The second category comprised those bhomias who exercised hereditary proprietary rights over land. Their bhom rights were originally granted by the state in lieu of meritorious military services or for the colonisation of new villages. They were usually agriculturists and held superior agrarian rights of the riyayatis.

\textsuperscript{58} ibid., pp. 144-45.

The bhomania were hereditary and had some role to play in collection of revenue for the authorities. They had a very small, recognised share within the revenue collected from the peasants due to limited surplus generation in these harsh environmental conditions. The situation seems to have been same in eastern and western Rajasthan.

The bhomania did not claim any proprietary right over agricultural land, but they had the right to collect revenue from the dependent raiyat and also, to realise dastur bhom. Along with it they also had the legal right to realise rahdari from traders passing through their territories.

The other important sections of rural society were various officials concerned with the land revenue administration. Chaudhari and patel functioned as intermediaries between rural society at large and the state.

The office of chaudhari was usually hereditary and was expected to render all help to the state revenue officials at pargana level, in the task of revenue collection. Chaudhari was expected to maintain various village level records, such as dastur ul amal, muwazana dahsala, taqsim dahsala, etc. Being the custodian of detailed records, he acted as an arbitrator in disputes relating to the village boundary, ownership of land, field, well, rate of land revenue and other cesses, etc. In return chaudhari was granted rent-free land known as nankar.

Patels generally descended from the line of the first colonisers of the village. Patel was commonly entitled to the so-called muqaddmi rights. He is

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62 ibid., p. 173.
also referred to as mukhia. The patel was normally a cultivator and sometimes a petty zamindar. He represented the raiyati and forwarded their complaints to the pargana official. The patel was not paid directly from the state treasury, but was entitled to some customary sources of income such as inam muqaddami, bisondh, patelai ka burotro, siropa and siropai. Apart from these customary mujari, the patels' holding was assessed usually at a lower rate in comparison with that of the raiyat.

These layers formed the superior sections of the rural society. The emphasis was on subordination of one layer to another so that the hierarchical system could function. At the same time an attempt was made to maintain checks and balance between various functionaries to ensure protection of interests of state. However, the analysis of patterns of inter-relationships among various sections in terms of rights, privileges and obligations in their immediate geographic contexts shall enable us to further highlight the influence of environmental features.

As pointed out earlier, the upper strata of the society enjoyed several economic privileges and along with it the higher social status of riyayatis encouraged them to exploit the lower sections of society. However, between the bhomia and the raiyati there existed a relationship of mutual dependence, the former being in need of the latter to provide manpower to cultivate his spare land, which would have otherwise remained uncultivated. The latter's dependence on the bhomia for loans or to stand surety for obtaining loans from other sources like state and mahajans.

There are references that many villages were depopulated on account on account of the excessive exploitation by bhomia. However, at the same time some bhomias even collided with the raiyat against undue demands of state. They jointly took ijara along with the other sections of the village community. By providing the needy raiyat with the resources to undertake cultivation, the bhomia played an important role in the growth
of the village economy. Such growth was in his own interest, as a prosperous village meant more income to the *bhomia*.\(^{63}\)

We have been discussing the peculiar nature of production relations; the process, the extent and method of governance in relation to the producing class. We have also tried to highlight the role of environmental limitations, possibilities of production and production process, etc. in the evolution of this particular kind of polity. However as discussed earlier, the agricultural expansion to a great extent was restrained by the non-availability of sufficient means of artificial irrigation\(^{64}\) which formed a very essential part of production process. Now it is pertinent on us to analyse the role of ruling class in production process and its’ impact. The methods of assessment, appropriation and distribution of revenue among various sections of ruling class shall help us in explaining the influences of environmental features on patterns of governance as evolved in the region.

Like any other pre modern state Rajasthan, was basically concerned with revenue collection and maintenance of law and order. However, in Rajasthan we find evidence of state actively involved in encouraging agricultural production. It might have been necessitated by Monsoon dependence very fragile nature of agricultural production and it’s critical dependence on the availability of capital inputs which were required both for expansion and sustenance of agricultural production.

The taxation system of any region enables us to analyse the constraints of environment on social structure and the state. While determining the

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\(^{63}\) ibid., pp. 46-47.

magnitude of land revenue from any region, various factors were considered. The most important had been the immediate environmental features. Features like, the quality of land, productivity of land, means and methods of irrigation used, kind of produce, etc. were considered to take care of limitations or possibilities.

There were two modes of revenue assessment prevalent in the region. These were firstly, a cash assessment per unit area of land or the ‘zahtī’ 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.\textsuperscript{65}

It is important to note that it was the type of crop grown, which determined that how crop was to be assessed by the zahtī or batai method or sometimes interchangeably by both. The crops usually assessed by the zahtī system were the ‘cash’ crops in both kharif and rabi harvests. Cash crops were termed as ‘pukki’ and were never assessed by the crop-sharing method. All the major food-grain crops were usually assessed under ‘batai’ category. However, as these could be assessed under both the systems were termed as ‘kutchi’ indicating the flexibility. Whereas in an area of dry farming that was prone to indifferent harvests, crop sharing was clearly of advantage to the cultivator as the preferred mode of discharging his revenue obligations. Thus we can say that in conditions of uncertain production, the preference for crop sharing, especially for rain-fed crops, is consistent with the risk averse strategy of the peasant.

The fact that assessment of revenue was based in the type of crop grown in the region rather than land being the criterion can be explained in terms of

agronomic reasons. In the semi-arid and arid environment of Rajasthan, intercropping was extensively practised. Unlike mixed crops where crops are sown, harvested and sold as such, inter-cropped plants, whether or not sown together are harvested separately. At the same time, the disparity in productivity and the prices led to the inter-cropped plants bring 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. 66

It is important to point out that the cash crops were usually assessed under the *zabti* system. In *batai*, the risk of harvest failure was shared between the state and the peasant. However, loss on account of variations in local prices was borne by the state alone. In case of cash crops, state might have attempted to negate the advantage of price variations to the peasant and thus, must have insisted on *zabti* rates. In the same context it is important to realise that growing cash crop required heavy capital investment in form of manpower, irrigation, longer maturity period, etc. It implied that only the rich section of peasantry with sufficient resources could have grown cash crops. It once again strengthens our submission that environmental features of Rajasthan must have had intensified the social stratification.

It has been pointed out that some of the factors which determined the variations in the magnitude of land revenue demand are brought out in our documents. In practice, difference in the quality of the soil, location of the field, duration of fallow of the field sown and the degree of capital and labour investment were incorporated to formulate a complex schedule of graded tax

rates for each crop. Far from there being a uniform crop rate for a whole 
pargana, the rates even varied as between fields within individual villages.\footnote{ibid., p. 116-17.}

In order to determine the productivity of land and its suitability for production, the land was classified into different categories. One of the more prevalent criterions has been the basis of irrigation facilities. The land was divided into two categories irrigated and un-irrigated, 
 nadimatraka\footnote{ibid., p. 118.} (river fed), devamatraka\footnote{ibid.} (rain fed).

Above classification highlights the significance of irrigation in the agricultural production of the region. Income from land revenue had been the mainstay of state’s treasury. Here one is reminded of limited use of artificial irrigation some two hundred years’ back. Shyamal Das says that both the crops depended upon rains for irrigation. The irrigation of land by use of water from wells or from ponds was almost non-existent.\footnote{ibid.} The use of artificial irrigation must have been limited in Mewar region primarily due to physiographic features, which made use of ground water non-feasible and uneconomical. However, it can not be accepted for whole of Rajasthan. Nainsi has time and again highlighted the significance of artificial irrigation, based on wells, rela, bahla etc. for agricultural purposes in different villages and parganas.

Different rates of land revenue demand were sometimes prescribed on the basis of irrigation facilities. The tax burden on land artificially irrigated was

less. It was practised perhaps to compensate the cost of its capital-intensive nature. For example, the crop cultivated in *bara* or *vor* or *varakyari* (land of the first quality) were charged at the rate of one-half, while the *piwal* or *piyal* (irrigated) lands watered by wells (*dhenkli*) and *tals* (tanks) were charged at a lower rate. Land watered by river water was more heavily taxed per bigha (Rs.5) than that irrigated by wells (Rs.3) even when cash crop like sugarcane was produced.

Similarly, the mixed wheat and gram crop produced on *sewanj* land was free from any extra charge, while in *piyal* wheat (Wheat grown on land where land was irrigated by wells) ‘official expenses’ were levied at the rate of 1½ *ser* per man (of produce).

As discussed above, the rate of taxation varied according to the method of irrigation used. Variations in the magnitude of land revenue on account of this factor are most evident in the different rates for *kharif* and *Rabi* crops. The magnitude of *mal* varied from *pargana* to *pargana* and from village to village within a *pargana*. It was higher in the *kharif* than in the *rabi* season, since the *kharif* crops were supported by rainfall and *rabi* required artificial irrigation. The average rate of *mal* in the *kharif* was 37% and in the *rabi* about 30%.

Nainsi’s *Vigat* provide details of “*amal dastur*” for *pargana* Merta. The *dastur* shows that the land revenue demand was imposed mainly in two forms, *batai* (crop sharing) and *zabti* (cash revenue rates). It has been pointed out that

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“under batai, land revenue in pargana Merta was collected at the rate of one-half (bhog-adh-batai) of the produce in siyalu (Kharif). For the unali (rabi) the rate to be paid was 2/5 (pachdui) on the rain-irrigated land and one-third (33½) on the artificially irrigated (piyal) land sown with cereal crops.”

The rate of taxation varied according to the nature of artificial irrigation devices. The demand was also fixed on the basis of means of irrigation. Bhog (land revenue) was, for example, stated as a rate on arhat (Persian wheels) in Jalore. The rate varies according to the kind of wells, as well as, the castes of the owners. This further testifies that the state was aware of environmental limitations of production process.

However, B. L. Bhadani has pointed out that “In unali (Rabi), the tax-demand in pargana Pokran was made per baori (stepwell) at the rate of 1/3rd of the produce; but for the sewanj (mixed wheat and gram), barley and gram, the share was the same as fixed for cereals in sawnu (kharif) harvest. It implies that the total burden on the peasants was the same in rabi as in the kharif.” There seems to be a problem in such an analysis. B. L. Bhadani has taken a different meaning of the term sewanj (mixed barley & gram), where as it should have been un-irrigated land. Thus we can say that constraints imposed by environment on production possibilities in different parts of Rajasthan were recognised while determining the quantity of land revenue.

77 ibid., p. 201.
In the state of Bikaner, the land was usually assessed at the rate of one-fourth of the produce or at Rs. 4 per plough. As the state had very limited agricultural potential, so we find, instead of bhog, Rokad-Rakam was the main source of income from the countryside. Rokad-Rakam was a nomenclature of those collective non-agricultural taxes, which were always realised in rokad or cash as a part of land revenue. Rokad Rakam constituted a major part of the hasil. Generally it approximated 48% or nearly 50% of the total income of hasil.

Rokad Rakam consisted of a good number of taxes. The most important component has been dhuan bhachh. It was a poll tax and was realised from each household at the rate of one rupee. It was a major source of the rokad rakam and contributed between 40% to 50% of the total income.

Similarly, a tax-Talibab was levied on non-agriculturist class at the rate of Rs. 4 per family. Whenever the state was scourged by famine, the ruler imposed an extra cess of eight annas per camel load of goods brought by the merchants for sale in the state. The amount thus collected was spent for famine relief. It was known as kal tax. The cultivators had to give one fourth of grass produced by them as tax.

Rokad Rakam was first introduced by Maharaja Anup Singh sometimes in 1668-69 AD. It is interesting to note the justification extended for its imposition. By imposing the tax Maharaja wanted to

79 P. W. Powlett, Gazetteer of Bikaner, Appendix- II, Calcutta, 1874, p. 162.

80 Kagad Bahi 1827, vs. Bikaner Records, Rajasthan State Archives, Bikaner. Henceafter, BR. RSAB.

81 ibid., 1839, vs.

216
encourage the cultivators to enhance the fertility of their land and to undergo no extra burden on account of introduction of new taxes.  

Pastoralism being prominent occupation in the western region, state used to charge Singothi - a tax of one paise per head of cattle. The cultivator had to give a share of the grass produced in his field to the state. In Marwar it was one bullock cartload of grass per plough of land.

In Marwar, the tax from the cattle owners using grazing grounds was known as ghasmari and pancharai. B.L. Bhadani has enumerated the rate of tax levied on different animals in pargana Merta. It is represented in table no.19, based on Nainsi.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Animals</th>
<th>Rate of Grazing per Animal (in Dugani)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cow</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Buffalo</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Goat &amp; sheep</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Jhumpi (Hut)</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Jhote (Buffalo – calf)</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>Baratho (Cow – calf)</td>
<td>4</td>
</tr>
</tbody>
</table>

Thus, we can conclude that there used to be a cattle census for taxation purpose and the term Jhumpi, (hut-temporary settlement)

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84 ibid., p. 158-160.


indicates that state used to levy tax on pastoral communities who were semi-nomadic. Further, to document the importance of pastoral sector to the subsistence pattern of the region we have evidence furnished by B.L.Bhadani. He has calculated grazing tax as a percentage of the total taxation in *pargana* Jodhpur\(^{87}\) and it is described in table no.20.

**Table No. 20**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Years</th>
<th>Grazing Tax (% of Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1653-34</td>
<td>7.34</td>
</tr>
<tr>
<td>2</td>
<td>1654-55</td>
<td>7.27</td>
</tr>
<tr>
<td>3</td>
<td>1655-56</td>
<td>6.44</td>
</tr>
<tr>
<td>4</td>
<td>1656-57</td>
<td>7.18</td>
</tr>
<tr>
<td>5</td>
<td>1657-58</td>
<td>4.03</td>
</tr>
<tr>
<td>6</td>
<td>1658-59</td>
<td>3.68</td>
</tr>
<tr>
<td>7</td>
<td>1659-60</td>
<td>5.05</td>
</tr>
<tr>
<td>8</td>
<td>1660-61</td>
<td>3.34</td>
</tr>
<tr>
<td>9</td>
<td>1661-62</td>
<td>4.88</td>
</tr>
</tbody>
</table>

He further says: “they give an overall average of 11.54\% for the share of *ghasmari* out of total taxation, which is much higher than that of Jodhpur”.\(^{88}\) But this is not surprising since Phalodi was more backward agriculturally than Jodhpur.

We are well aware of the limitation imposed on agricultural production by the climatic factors. Monsoons were the mainstay of agriculture in whole region. Monsoons provided yearly supply of both potable water and water for irrigation. We have discussed the various methods by which it was harnessed for optimal use in chapter V. State was concerned for the timely arrival of monsoons, as any disruption will

\(^{87}\) Bhadani, B. L., Op. Cit., p.86.

\(^{88}\) ibid.
lead to qualitative and quantitative decline in cultivation and lower revenue appropriation. We have ample documentary evidence which highlights the eagerness of the state about the timely arrival of the Monsoon. State was kept well informed about water levels in tanks, ponds and wells all over the state.

Jaipur region provides evidences for state’s concerns for monsoon. Arzdashts also point out the remedial methods adopted by the state. An arzdasht written by Rupram on Sawan sudi 9, 1762 vs., informs the ruler about the quantum of rainfall the region has received till date.\(^89\) Similarly, Purohit Haras Ram in his arzdasht dated Bhadva vadi 2, 1762 vs., informs about timely arrival of rains which have ensured good harvest of sown crop.\(^90\)

An arzdasht written by Bhagavti Das Chater Bhuj on Bhadva vadi 5, 1762 vs., informs not only about the delayed rains but also informs that til & moth has been sown after the rains.\(^91\) Similar, but detailed arzdasht written by Purohit Haras Ram and Ajit Das, dated Bhadva vadi 5, 1762 vs. furnishes details about the erratic nature of rains the sowing of fields and the water level of various tanks and dams in the region. Similarly, Rup Ram informs through his arzdasht dated Bhadva sudi 7, 1762 vs., about the replenishment of talabs due to rains in the region.\(^92\)

\(^89\) Arzdasht, Sawan Sudi 9, 1762, vs. HS, JR, RSAB.

\(^90\) ibid., Bhadva Vadi 2, 1762, vs. HS, JR, RSAB.

\(^91\) ibid., Bhadva Vadi 5, 1762, vs. HS, JR, RSAB.

\(^92\) ibid., Bhadva Sudi 7, 1762, vs. HS, JR, RSAB.
The delicate relationship between the quantum of rainfall received and agriculture production has been highlighted by these documents. These also stress the state's role in production process. An arzdasht written by Ajit Das Man Ram dated Sawan sudi 9, 1752 vs., informs about rains and also provide details of ploughing of land for the kharif crops and due to delayed rains the sowing of moth, which needs less water and grows in shorter period. Similarly, Jado Ram Ber Chand informs through his arzdasht dated Sawan vadi 13, 1770 vs., that due to good rains, it was possible to cultivate jowar, moth, til, etc. on fallow land. He also informs that land being parti, the revenue incidence shall be less compared to normal lands.

Another set of documents provides very interesting evidence that shows the panorama of state's concern. Arzdasht by Nand Lal dated Asad vadi 3, 1768 vs., informs the central authorities that embankment of the river being very old, was breached and gives assurance that it will be repaired after the floods. The very next year the same person again informs the state that the embankment has once again been breached, and he will get it repaired soon. 93

Another arzdasht by Sundar dated Kati vadi 9, 1759 vs., informs about flood-like situation in seasonal rivers and describes the hardships that the peasants were suffering. However, it is not only the rains, which were needed for a good crop. After good rains, sunshine was also necessary for a good crop. 94

93 ibid., Asad Vadi, 3, 1768, vs. HS, JR, RSAB.

94 ibid., Kati Vadi 9, 1759, vs. HS, JR, RSAB. In this arzdasht Lal Chand Dala Ram informs that and various have increased the prospect of and haunts and only grand sun in respected to complete the process.
State actively promoted the construction of artificial means of irrigation. These varied from wells to tanks and at times even dams were constructed. The mechanism to be promoted for any region depended upon the local environmental features. In the regions where water table was relatively high, construction of wells was promoted.\(^95\) State also offered financial support for the repair of wells.\(^96\) The state extended loans to the peasantry to excavate new wells.\(^97\)

However, in desert region of Rajasthan, wells being at an average depth of 250 feet, could not be used for irrigation.\(^98\) Wherever, water table was low tank/ponds were put into use.\(^99\) Not only the wells, the digging of tanks were also financed by the state.\(^100\) Due to continuous use, tanks were silted which needed to be cleared. We have evidence from *pargana* Maroth that state provided financial assistance for the same.\(^101\) This is significant as it demonstrates that state was not only concerned with one-time payment for the construction of irrigation device but also supported its maintenance.

\(^95\) *Sanad Parwana Bahi* No 1821 vs. Jodh. Rec. RSAB. and B L Bhadani, Op. Cit., p. 49. Wherever wells occurred more frequently in c. 1660, the water table was nearer the surface.

\(^96\) ibid., No. 8, 1825 vs. Jodh. Rec. RSAB.

\(^97\) *Arzdasht*, Kartik Sudi 13, 1743 vs.; Bhadva Sudi 11, 1743 vs.; Asad Sudi 15, 1743 vs.; Sawan Sudi 13, 1740 vs. and Asoj Vadi 12, 1752 vs. HS, JR, RSAB.


\(^100\) *Sanad Parwana Bahi*, No.2, 1822 vs. Jodh. Rec. RSAB.

\(^101\) ibid., No.8, 1825 vs. Jodh. Rec. RSAB.
It is interesting to note that, the state used to increase the land to be cultivated after digging of new wells in the villages. The state’s concern for optimal use of irrigational facilities is also evident in the same document. Similar evidence is also available from eastern Rajasthan. An arzdasht written by Fateh Chand Ramji on Paus vadi 5, 1773 vs., informs the state that well water is being used for irrigation as directed.

These evidences also suggest that state had to settle the disputes over the amount of land to be irrigated by different means of irrigation. S. P. Gupta, while analysing the land revenue administration and role and functions of the Patel in the system, points out that “He (patel) was also to exercise vigilance in the supply of water for irrigation purposes (bandh-birar).

State at times rented wells for irrigation purposes. The rent on wells was termed ‘nalvat’. Such wells appear to have been acquired by the state through sequestration of the property of defaulting asamis. When the Chauhan zamindars of pargana Lewali were ousted along with their supporters in 1723-24, their property was declared ‘khalisa’ and ‘nalvat’ demanded by the revenue authorities on the use of the wells by the raiyati in a later year. The rate of ‘nalvat’ varied from pargana to pargana. It can be inferred from these evidences that probably state had greater control over mechanism of irrigation.

102 ibid., No.2, 1822 vs. Jodh. Rec. RSAB.
103 Arzdasht, Paus Vadi 5, 1773, vs. HS. JR. RSAB.
104 Sanad Parwana Bahi, No.2, 1822 vs. Jodh. Rec. RSAB.
It not only arbitrated on the issue of ownership of means of irrigation but also controlled the amount of water to be distributed.\textsuperscript{107}

State intervened in the production process only when it thought that any such intervention would lead to an increase in agricultural production. Any increase in the agricultural production was an increase of its resource base. In order to stabilise production and to mitigate the effects of famines, the state extended loan facility for excavation of wells. Those peasants who dug up new wells were also offered concessions in the land revenue.\textsuperscript{108} In \textit{pargana} Pahari the failure of \textit{rabi} crops has been attributed to the lack of well irrigation in most of the villages.\textsuperscript{109} Similarly, state was urged to provide the loans to peasants in order to enable them to buy \textit{lao-charas} (rope and leather) so that they could operate wells to irrigate the crops, which is being ruined.\textsuperscript{110}

Another avenue by which agricultural production could be increased was colonisation of cultivable land which was not under the plough but was otherwise available in plenty. For the purpose, not only were concessional rates of revenue offered to peasantry, at times, irrigational devices like well were also constructed. To increase the land under cultivation, state extended loans to peasant to purchase seeds and ploughs.\textsuperscript{111} \textit{Arzdasht} of Kusala dated \textit{Jeth vadi} 8, 1751 vs., informs about the colonisation 14 new villages. He informs that peasants of one village have settled in other village; hence attempt of their

\begin{flushleft}
\textsuperscript{107} \textit{Sanad Parwana Bahi}, No.2, 1822 vs. Jodh. Rec. RSAB.
\textsuperscript{108} \textit{Arzdasht}, Kartik \textit{Vadi} 3, 1742, vs. HS, JR, RSAB.
\textsuperscript{109} \textit{Yaddashti pargana Pahari Mauza- darobastki}, 1784 vs.
\textsuperscript{110} \textit{Arzdasht} Asoj \textit{Vadi} 12, 1752 vs.; Asoj \textit{Vadi} 1, 1751 vs.; Kartik \textit{Vadi} 3, 1751 vs. HS, JR, RSAB.
\textsuperscript{111} \textit{ibid}, Kartik Sudi – 13, 1743, vs.; Bhadva \textit{Vadi} 11, 1743 vs. HS, JR, RSAB.
\end{flushleft}
retrieval is going on.\textsuperscript{112} Similarly, Lal Chand Dala Ram in his \textit{arzdasht} dated \textit{Asoj vadi} 15, 1756 vs., informs us about the colonisation of village by offering exemption from payment of land revenue for the year. Similarly, village Singrampur in \textit{pargana} Chatsu had been deserted for the past 100 years however, with the construction of non-masonry well in 1733 AD, agriculture flourished.\textsuperscript{113}

The rehabilitation of deserted villages was a major concern even for the other region. Similar evidence is available from Marwar also. A document of Marwar region provides evidence that tax concessions were offered for rehabilitating a deserted village.\textsuperscript{114} For example, from village Purwa, when settled in 1763 vs., tax concessions were offered. Taxes like \textit{korad}, \textit{bhuraj}, \textit{jukhiro} were to be taken at only half the normal rates for one year from all the inhabitants.\textsuperscript{115} Similarly, in village Godavro, in \textit{pargana} Merta, all those indulging in cultivation were allowed to pay only half of \textit{hasil} for two years.\textsuperscript{116}

Similarly, a \textit{pargana} official (ami!), Kesodas wrote to \textit{diwan} Kalyan Das in 1665, ‘The raiyatis (probably \textit{khud-kasht} peasants) have gone to some other places in famine years. Therefore, I have instructed all the chaudhari and qanungos, patel and patwari and ijaradars of \textit{pargana} Bahatri, Piragpur, Jalapur and Bhankok, to console the \textit{paltis} who have gone to Malwa, Burhanpur, Kulibhit, and Purab and towards Agra and Sri Mathura. To attract

\textsuperscript{112} \textit{Sanad Parwana Bahi} No. 1, 1821, vs. Jodh. Rec. RSAB.


\textsuperscript{114} ibid.51-52

\textsuperscript{115} \textit{Kagad Bahi}, Asoj Sudi 11, No. 2, 1820 vs. BR. RSAB.

\textsuperscript{116} \textit{Sanad Parwana Bahi}, Asoj Vadi 2, 1843, vs. Jodh. Rec. RSAB.
them inducements for _patta batai_ (concessional sharing of _patta_), bullocks and seed were to be offered. I (Kesho Das) have also granted concessional _pattas_ to the _patels_ of two out of four villages who have gone to bring the _paltis_ back.\textsuperscript{117} 

Thus attempts were made to rehabilitate the villages which have been deserted due to environmental disturbances.

We have discussed the impact of constraints of environment over the social structure and resource distribution followed by patterns of governance. In the context of medieval Rajasthan, we have already pointed out that due to semi-arid and arid nature of environment, the agricultural production necessitated capital investment. The recurring feature of drought and at times its culmination in famine led to the depletion of meagre resources of society. The limited possibilities of agricultural production often led to conflict over resources. State as the guardian of law and order and social harmony was expected to mediate.

We have several documents highlighting the role of the state as an arbitrator. A careful study of the disputes points out that it was the paucity of resources, which necessitated state intervention. These may not be directly related to the production process but very clearly brings out the cause, i.e. environmental constraints.

We have numerous evidences from western Rajasthan (Marwar- where dependence on irrigation was greater) where state used to/ had to interfere. State had to arbitrate in disputes like the nature of ownership of irrigation devices, the use of water of _talab_ for drinking purposes for animals, etc. _Bahi_ is full of such incidences. At times the state had to interfere to decide the

\textsuperscript{117} Singh, Dilbagh, _The Role of the Mahajans..._, Op. Cit., p. 16.
amount of water due to various claimants from an irrigational device. Extra withdrawal of water from these was punished.

For example the sanad parwana bahi dated Baisakh vadi 12, 1824 vs., instructs the local official to allow the people from city to drink water from a particular talab. Similarly, another dispute reveals that the state had to issue a parwana dated Kati sudi 13, 1824 vs., asking local official to ensure that the cattle of neighbouring village should be allowed to drink water from the talab within their jurisdiction as has been the practice. The arbitration was confined not only to the water related disputes. Dispute over use of cow dung was also settled by the state. It is important to note that cow dung was treated as a resource and its collection from common land of village was allowed to a particular caste only. It is difficult to generalise on the basis of this sole evidence but Oswals are seems to have been the beneficiary in the above case. Equally important is the evidence where state had to decide the right to use of mud brought out from the village ponds. It is significant because the mud of the ponds was of considerable economic value for village potters.

A close look on these evidences strengthens our submission that perhaps the paucity of resources necessitated state intervention in the ancillary economic activities. We have several evidences providing

118 Sanad Parwana Bahi. No. 2, 1822, vs.; No. 8, 1825 vs. Jodh. Rec. RSAB.
119 ibid, Baisakh Vadi 12, 1824, vs. Jodh. Rec. RSAB.
120 Arzdasht, Kati Sudi, 13, 1824, vs. HS, JR, RSAB.
121 Sanad Parwana Bahi, No. 2, 1822 vs. Jodh. Rec. RSAB.
122 ibid.
details of various violations of right to use of natural resources. Any act of polluting common village property was also severely dealt with.

Even the use of wood from the forest or hills was restricted. State claimed property right over resources like forest, pasture, etc. The use of various natural resources was restricted and perhaps state tried to generate revenue by allowing its use by any individual. The issue of control over natural resources needs further delineation. The available evidences lead us to believe that use of unclaimed natural resources was restricted and state punished any unauthorised use.

It was reported from village Jaisingh pura Toda, pargana Bahatri that Mahto Jat and other had cut wood without official permission and a fine of Rs. 11/- was imposed. 123 Similarly, in village Shobha ka Nangal, Jujhar patel had cut woods without permission and was punished with Rs. 6/-. 124 It was reported from village Ghaivar, pargana Bahatri that Hira Gujar had collected woods from hill and he had to pay a fine of Rs. 5.50. 125 Similarly, patel of village Devati had cut woods from the hills. As a consequence he had to bear a fine of Rs. 7.50. 126 The act was imitated by the patels of Village Khara and Got Kalan and paid a fine of Rs. 2/-, each. 127

123 Arshatta, Pargana Bahatri, 1776 vs. HS. JR. RSAB.
124 ibid.
125 ibid., Pargana Bahatri, 1774 vs. HS. JR. RSAB.
126 ibid., Pargana Bahatri, 1786 vs. HS. JR. RSAB.
127 ibid.
It is reported from *qasba* Sawai Jaipur, *pargana* Sawai Jaipur that Toda Gujar had cut the woods from a hill, which was declared protected.\(^{128}\) The evidence suggests that perhaps there was a concept of protected forest and the state tried to extend its revenue by auctioning wood. It is corroborated by another evidence which points out that forest were auctioned by state. It is reported from village Kundnauli, *pargana* Bahatri that *ijara* for woods has been awarded to *patel*.\(^{129}\)

In the same context, it is important to point out that the use of fodder was restricted and any unauthorised use of fodder was punished. It was reported from village Devaki Khurd that *patel* Palti has cut grass from the state pastureland. Patel Palti was fined for Rs. 10/-\(^{130}\) Patel of village Isabana had cut grass from hill, so he was punished with a fine of Rs. 5/-\(^{131}\) It was reported from village Nalireda, *pargana* Naraina that cattle of *patel* and *raiyat* grazed on the reserved pastureland and as a consequence, a fine of Rs. 7.50 was imposed.\(^{132}\) The evidence also points out the practice of maintenance of reserved pasturelands.

The dispute over use of water for irrigation purposes in the semi-arid climate cannot be ruled out. However, state's arbitration, or at times distribution, points out extended concern of state in such resource deficient regions. It was reported from village Dhamorki, *pargana* Khori, that patel had diverted water from the river without permission.

\(^{128}\) ibid., *Pargana* Sawai Jaipur, 1795 vs. HS. JR. RSAB.

\(^{129}\) ibid., *Pargana* Bahatri, 1781 vs. HS. JR. RSAB.

\(^{130}\) ibid., *Pargana* Bahatri, 1777 vs. HS. JR. RSAB.

\(^{131}\) ibid.

\(^{132}\) ibid., *Pargana*, Naraina, 1791 vs. HS. JR. RSAB.
He was punished with a fine of Rs. 20/-\textsuperscript{133} Rupa Patel of village Raitoli breached the embankment of river to divert water.\textsuperscript{134} In an another incidence, state punished a Gujar for diversion of water from other person's field in *qasba* Baswa, *pargana* Bahatri in 1774 vs.\textsuperscript{135} A similar dispute is reported from village Neembla, *pargana* Bahatri. Goverdhan Brahman fought with Tulani Brahman over the issue of diversion of water and hit him with axe. He paid Rs. 11/- as fine.\textsuperscript{136}

The village ponds were the common village resources and were used for various purposes. It supplied water for various uses. The village pond had been used not only for washing clothes and ancillary activities but also by cattle for drinking purposes. Thus, any act of its pollution was punishable. We have evidence from *qasba* Malpura, *pargana* Malpura that Lona dyer was fined Rs. 5.50 for washing dyed cloth in the pond.\textsuperscript{137}

Various restraints on the use of wood and grass from hills and forests and water from rivers and ponds for irrigation purposes as imposed by the state suggests that perhaps the state had extended its claim even on the common resources. It can not however, be conclusively established that all the common resources were claimed by state but the above evidences question the rights of society over common resources.

\textsuperscript{133} ibid., *Pargana*, Khori, 1801 vs. HS. JR. RSAB.
\textsuperscript{134} ibid., *Pargana*, Dausa, 1825 vs. HS. JR. RSAB.
\textsuperscript{135} ibid., *Pargana* Bahatri, 1774 vs. HS. JR. RSAB.
\textsuperscript{136} ibid.
Since ancient past, the state was expected to extend assistance in times of exigencies. Kautilya expected a good king to take active measures in famine period to relieve the popular distress, by distributing materials for production and consumption. Help should be extended by starting construction of public works, allowing the people to migrate to areas of plenty and extracting wealth and surplus food from richer sections to be distributed amongst poor. 138

Similar notion of kingship was expected even in medieval period. The picture of an ideal and just king sketched by Abul Fazl emphasised his charitable pursuits, exacting not more than what was necessary and possible from the riyah in normal years, while being fully responsible to the grievances of people in times of exigencies. 139

Study of famines in medieval India also highlights the nature of relief measures undertaken by the states. During the 1326-27 and 1335-36 famines, Muhammad Bin Tughluq advanced loans to the peasants, sank wells, distributed cooked foods and also, established an agricultural farm near Delhi to bring uncultivated land under plough. 140 In 1494 AD, when there was a severe famine in Baghelkhand area, an attempt was made by Sikandar Lodi to moderate its impact by abolishing zakat on food grains and by facilitating supply of grains at cheap rates. 141 Akbar, considered the most solicitous of the welfare of his

137 ibid., Pargana Malpura, 1791 vs. HS. JR. RSAB.


140 Ziauddin Barani, Tarikh-I-Firoz Shahi, Ed. S A Khan, Calcutta, 1862, pp. 208-10

people by the author of Ain-I- Akbari, established grain godown in every part of Gujarat, so as to enable the poor to purchase cheap grain and also made seed grains available to the poor cultivators during the 1574-75 famine.\textsuperscript{142} Like wise, during the 1583 Kashmir famine, free kitchens were opened outside the capital; one supplying food to the Hindus, called "Dharmpura", the second to the Moslems, called Khairpura, and the third to the Jogis, called Jogipura. Also large sums of money were often distributed during these famines.\textsuperscript{143} Similarly Aurangzeb remitted taxes like rahdari and Pandari on transport of grains in 1659-61, during an acute famine in Sindh and Gujrat. Grain was also purchased from the surplus provinces and sold at cheaper rates in the affected areas.\textsuperscript{144}

The climate of Rajasthan varies a lot according to seasons. It is very hot during summers and cold in winters. The temperature variations, not only over seasons but also between day and night are very marked. Another limitation has been erratic monsoons. These factors have been discussed in the earlier chapters. The erratic nature of Monsoons often led to failure of rains. Droughts were thus frequent. During such a situation, the state was expected to provide relief.

Droughts were the period when the usual revenue demand could not be borne by the poorer peasants. In such situations, relief was sought and tax remissions were granted. An arzdasht dated Sawan sudi 13, 1740 vs., refers among other things to peasants leaving for the royal

\textsuperscript{142} Abul Fazl, \textit{Ain...}, Vol. II, Op. Cit., p. 44.


\textsuperscript{144} Masir-i-Alamgiri Tr. J N Sarkar, New Delhi, 1986, p. 316.
court to plead for exemption from the land revenue, in view of the extreme impoverishment brought about by the drought.\footnote{Arzdasht, Sawan Sudi 13, 1740, vs. HS, JR, RSAB.} The \textit{pargana} level officials also from time to time recommended the suspension of land revenue collection from the peasantry on account of the overall scarcity. An \textit{arzdasht} by Ajit Das & Pundit Haras Ram dated \textit{Asad vadi} 9, 1762 vs., informs the State that due to drought, the revenue collection in the area declined.\footnote{ibid., Asad Vadi 9, 1762, vs. HS, JR, RSAB.} Similarly, Rup Ram informs that it is drought like situation and requested state not to extract revenue forcefully.\footnote{ibid.} In an \textit{arzdasht} dated \textit{Kartik vadi} 3, 1742 vs. delineates on the repercussions of revenue extraction in times of distress. It argues that due to drought and resultant famine \textit{raiyat} had sown seed borrowed on loan and rain failure has ruined their investment. In such conditions it is difficult for them to repay even the borrowed money and expecting revenue extraction shall be foolish. It further argues that any attempt of compelling them to pay land revenue will lead to such destitute conditions that any further cultivation by them will not be possible.\footnote{ibid., Kartik Vadi 3, 1742, vs. HS, JR, RSAB.}

Another \textit{arzdasht} by Ajit Das Man Ram informs the state of the famine and says that not even \textit{moth}\footnote{ibid., Asad Vadi 9, 1762, vs. HS, JR, RSAB.} could be grown in the region. The \textit{amil} observed in one case that the prospects of a good \textit{rabi} were bleak in the face of peasants leaving their villages.\footnote{Suraj Bhan Bhardwaj, \textit{Socio-Economic Conditions in the Mewat Region C. 1650-1750}, thesis submitted to Jawahar Lal Nehru University, New Delhi, 1990, p. 133.} In the same context the
arzdashts time and again emphasised the need for digging new wells if the next crop (rabi) was to be protected from the vagaries of the weather.\textsuperscript{151}

However, even if the peasants chose to stay, they required resources such as seeds, ploughs and cattle to till the land again. In the arzdasht dated Asad sudi 15, 1743 vs., amil informs the lack of seeds with the peasantry which is restricting the cultivation for the coming season.\textsuperscript{152} In another arzdasht dated Kartik sudi 11, 1742 vs., amil argues that if the peasant were forced to sell their cattle to pay the land revenue, it would be counter productive as it will cause a fall in the amount of revenue realisation in future.\textsuperscript{153}

During droughts and famine, state not only extended relief in terms of concession in tax or by forbidding taxes but also extended support to develop irrigation mechanisms and continue to live in the same village. In 1687 AD in pargana Bahatri, during drought the patel extended relief by helping digging of nearly 400 wells in pargana Bahatri and 150 wells in pargana Phagi.\textsuperscript{154}

It is suggested that in Rajasthan a large number of forts, palaces and temples were constructed during years of famines and droughts. The Rajsamand lake in Kankroli, Mewar is thus said to have been constructed

\textsuperscript{151} Arzdasht, Bhadva Vadi 11, 1743 vs. HS, JR, RSAB.

\textsuperscript{152} ibid., Asad Sudi 15, 1743, vs. HS, JR, RSAB.

\textsuperscript{153} ibid., Kartik Sudi 11, 1742 vs. HS, JR, RSAB.

\textsuperscript{154} ibid., Sawan Sudi 3, 1741 vs. HS, JR, RSAB.
in the famine year of 1661 AD.\textsuperscript{155} The outer wall of the city of Bikaner is also said to have been extended and reconstructed at the time of famine.\textsuperscript{156}

During famine or any other natural calamity when recovery of loan seemed difficult, the moneylender usually avoided loans to the peasantry. During such period the state advanced \textit{tagai} loans to the peasantry to sustain cultivation. In many cases, state was expected to extend seed loans.\textsuperscript{157} An \textit{arzdasht} from \textit{pargana} Bahatri requests state to extend loan-\textit{tagai} to help the peasantry so that they could cultivate land.\textsuperscript{158} Similarly, the state was requested to extend \textit{tagai} in the year 1741 vs.\textsuperscript{159}

In 1743, the \textit{amil} of \textit{pargana} Malpura complained that despite a fortnight of uninterrupted rains in the month before the sowing of the \textit{kharif} crops, the \textit{bohras} were not coming forward to provide seed-loans to the cultivators as the previous year had been one of drought. The state therefore, allocated Rs. 2,000 as \textit{tagai} to the \textit{pargana}.\textsuperscript{160}

During famines, moneylenders demanded surety furnished by the village \textit{zamindar}, \textit{patel} or \textit{jagirdar}.\textsuperscript{161} At times \textit{bohras} declined to extend the loans during such periods compelling the state to intervene. The reported widespread refusal by the moneylenders to provide loans in every

\textsuperscript{155} G. N. Sharma, \textit{Social Life in Medieval Rajasthan}, Agra, 1968, p. 344-47.


\textsuperscript{157} \textit{Arzdasht}, Bhadva \textit{Vadi} 11, 1743 vs. HS, JR, RSAB.

\textsuperscript{158} ibid., Kartik Sudi 13, 1743, vs. HS, JR, RSAB.

\textsuperscript{159} ibid., Asoj Sudi 2, 1741 vs. HS, JR, RSAB.


\textsuperscript{161} Singh, Dilbagh, \textit{The Role of the Mahajans...}, Op. Cit., p. 22.
pargana in 1731 vs., led the diwan to issue instructions compelling the bohras to advance half the grain that they had recovered in the previous rabi harvest as seed-loan to the peasants so that the rabi cultivation in the current year could commence.\textsuperscript{162}

The state imposed several restrictions on the functioning of the bohras. The general principle in regard to all loans – tagai as well as loans advanced by the bohras – was that debt incurred in the current harvest period should be recovered immediately after the harvest or within the fiscal year. Arrears on the older loans could only be demanded if the output of the current harvest was considered adequate. State’s attempt to discourage the recovery of old loans by the bohras suggest that such loans were generally unrecoverable and therefore written off.\textsuperscript{163} It was perhaps also due to consideration that excessive exploitation of peasantry would compel them to migrate and thus, ruin the production potential.

In western Rajasthan, incidences of famines were more frequent. In order to counter the continuous problems posed by natural calamities, the state constantly gave remissions in important taxes to the peasantry. In famine years such concessions increased greatly. For example village Jaitasar was weak (neeblo) in the year 1763 AD, due to less rains, so hasil was remitted.\textsuperscript{164}

In cases where the inhabitants had already deserted, they were encouraged to come back with an assurance of remission of certain special


\textsuperscript{163} ibid., p. 83.

\textsuperscript{164} Kagad Bahi, Asoj Vadi 8, 1820, vs. BR. RSAB.
taxes. The *arzdashts* also make it clear that while many old villages were getting deserted, attempts were made to settle new villages. Many old villages were populated with new peasants at the initiative of the state. In one particular instance, the land of 10 deserted villages was first handed over to peasants from other villages (*pahis*) to cultivate on a purely temporary lease and then eventually, to palti peasants from another village who were then permanently settled in the village.\(^{165}\) In mauza Kolahara, *pargana* Averi a new village was settled with the help of peasant from neighbouring areas.\(^{166}\) In another instance, a Rajput resettled a deserted village by shifting peasants from his original territory.\(^{167}\)

For example, when most of the inhabitants of village Kalu were migrating, they were asked by the state to continue staying on the promise of remission of their *bach* and *hasil*.\(^{168}\) Similarly, in the village of Baladsar, the Jogpati was asked to prevent all people from migrating and also encourage new ones to settle there, in lieu of which *bach* tax was to be levied at half the rate.

An *arzdasht* written by Mouji Ram dated *Kati sudi* 15, 1774 vs. informs the state about meagre rainfall leading to drought. This resulted in the migration of the peasantry. He also informs that he is trying hard to

\(^{165}\) *Arzdasht* Jeth Sudi 4, 1742 vs. HS, JR, RSAB.

\(^{166}\) ibid., Falgun Sudi 2, 1743 vs. HS, JR, RSAB.

\(^{167}\) ibid., Jeth Sudi 4, 1742 vs. HS, JR, RSAB.

\(^{168}\) ibid., Jeth Vadi 11, 1820, vs. HS, JR, RSAB.
check the migration. Similarly, Nanhu Ram informs about migration and later on, rehabilitation.\(^{169}\)

In his *arzdasht* dated *Jeth sudi* 1, 1762 vs., Lal Chand Dala Ram informs about migration of peasantry due to drought and resultant decline in revenue collection. In the same he also informs about the rehabilitation of village.\(^{170}\)

Similarly another *arzdasht* by Ajit Das, Man Ram dated *Chait vadi* 3, 1752 vs., informs that villages deserted due to drought have been rehabilitated.\(^{171}\) There are evidences that for rehabilitation of deserted villages financial assistance was also offered. In his *arzdasht* Shyam Singh Rajawat informs us that he has offered financial assistance to the peasantry to rehabilitate the deserted villages.

The function of the *palti* was no less significant in the days of famine and scarcity. A *pargana* official (*amil*), Kesodas wrote to diwan Kalyan Das in 1665, ‘The raiyatis (probably khud-kasht peasants) have gone to some other places in famine years. Therefore, I have instructed all the *chaudhari* and *qamungos*, patel and patwari and *ijaradars* of *pargana* Bahatri, Piragpur, Jalapur and Bhankok, to console the *paltis* who have gone to Malwa, Burhanpur, kulibhit, and Purab and towards Agra and Sri Mathura. To attract them inducements for *patta batai* (concessional sharing of *patta*), bullocks and seed were to be offered. I (Kesho Das) have

\(^{169}\) ibid., Magh *Vadi* 9, 1765, vs. HS, JR, RSAB.

\(^{170}\) ibid.; Asad *Sudi* 2, 1762, vs. and Jeth *Vadi* 7, 1752, vs. HS, JR, RSAB.

\(^{171}\) ibid., Chait *Vadi* 3, 1752, vs. HS, JR, RSAB.
also granted concessionai pattas to the patels of two out of four villages
who have gone to bring the *paltis* back.¹⁷²

We have evidence that in some such situations the state would
provide material support also. Purohit Haras Ram informs in his *arzdasht*
that due to poor rain-fall the water table in wells have gone down, hence
digging of new wells has been started to support original production and
peasantry in the village.¹⁷³

It was not only the production process, which required state’s
attention. Availability of food grains during drought was one of the major
concerns for state. In his *arzdasht* Kisor Das suggests that state should
provide concessions in transit duty to the traders, so that food grains can be
procured from the neighbouring regions.¹⁷⁴

Since in famine years, availability of food often fell short of the
demand, the state on the one hand attempted to procure food grains and
fodder from neighbouring areas by offering concessions while on the other
hand tried to check the practice of hoarding by merchants.

We have evidence for similar practices in other parts also. In
*Pargana* Didwana many villages had one-forth remission in *sair* and
*rahdari* for all traders.¹⁷⁵ In another instance, it was declared that Jats and

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¹⁷² ibid. Jeth Sudi 4, 1742 vs. HS, JR, RSAB.

¹⁷³ ibid., Paus *Vadi* 4, 1761, vs. HS, JR, RSAB.

¹⁷⁴ ibid., Asoj Sudi 2, 1751, vs. and Asoj *Vadi* 6, 1751, vs. HS, JR, RSAB.

¹⁷⁵ *Sanad Parwana Bahi*, Migsar *Vadi* 13, 1843, vs. Jodh. Rec. RSAB.
others who brought fodder for bullocks from towns to villages of Sinhod and Baran would be remitted *hasil*.\(^{176}\)

Interestingly, the tax paid by *sahukars*, called the *sahukar bachh* in Bikaner, had to be remitted in the famine years, as the assesses would try to evade the taxes by taking refuge in the Karni Mata temple. Also, to facilitate grain supply only Rs. 11.00 were charged on each camel carrying grains.\(^{177}\)

The above delineation very clearly highlights the nature of relationship between ruling class and ruled ones. Various superior rights enjoyed by the upper classes seem to be the product of immediate environmental conditions, historical background, etc. Limited production possibilities needed for greater inputs to harness the available potential, etc. led to greater inter-dependence. This inter-dependence was manifested at various levels as discussed above. The role of kith and kin was also very significant as pointed out earlier.

However, there were several other manifestations where given environmental conditions were put to better results by individual, society and state. The environmental concerns cannot be confined only to the production process. Therefore, many others expressions have been analysed in the following chapter. The *arzdashts* provide evidence for the various rituals and superstitions, which were performed under the instructions of state to ensure the timely rains. Rituals like worshipping

\(^{176}\) ibid., Magh Vadi 11, 1843, vs. Jodh. Rec. RSAB.

of vat tree or organising a *Brahma Bhoj*,\(^{178}\) *Sava Lakh ka Jap*\(^{179}\) prayers involving Brahmins and the Qazis.

The chapter has analysed the role and function of social stratification in the very process of resource generation and resource distribution. In this context, the role of state has also been taken into account. Based on above discussion, we can conclude that in Rajasthan, society and state had evolved in such a manner that their inter-relationships and relationships with production process took care of the environmental constraints in such a manner so as to last for a very long period of time.

\(^{178}\) ibid., Sawan Sudi 6, 1774, vs.

\(^{179}\) ibid., Bhadva *Vadi* 5, 1762, vs.