Chapter 2

The Study Area

2.1 Brief History of the Study Area

The Pali District was carved out from the erstwhile princely State of Jodhpur of which it was an integral part. The district is named after its main town Pali which is diminutive of Palika whose references are found in old inscriptions. The district was rich in heritage and wealthy as is seen from Jain memorials at Ranakpur and elsewhere. Pali was an important business centre and had its business ties up to very remote areas of China and Middle East. Geologists trace the existence of the district to pre-historic phase and maintain that it has appeared from the vast western sea spread over a large part of the current day state. In the Vedic age MaharsiJavali stayed in this area for meditation and interpretation of Vedas. The Pandavas in the Mahabharata age also have made this area (near Bali) their resting place during the exile (District Census Handbook, 2011).

As a part of ancient Arbuda Province, this area was known as Balla-Desh. Historical relics depict the existence of this area during the Kushana Age, when King Kannishka had conquered Rohat and Jaitaran area, parts of today's Pali district, in 120 A.D. till the end of seventh century A. D., this area was reined by the Chalukya King Harshavardhana who also conquered Bhinmal and most of the present area of Rajasthan. After the Arab invasions of India this area was concentrated by Rajput rulers from all over India. The authentic history of Pali is being traced way back from 10th Century AD with the establishment of Chauhan dynasty at Nadol by Rawal Lakha whose influence was felt in various parts of Gujarat and Mewar. Anhilla the eight ruler of the line is said to have fought a war with Mahmud of Ghazni in 1025 A.D. near Somnath. A different heir of this dynasty Jayatsimha fought against Qutbuddin Aibak at Ajmer. The Rathors came on the scene in 1294 A.D. But because of the absence of authentic records the history during 13th and 14th centuries is obscure because of controversies. At that age Rathore and Muslim invaders were often at war and sometimes a brave personality attracted the care of the public. One such personality was Jodha ji, the founder of Jodhpur in 1459 AD. After the death of Jodha ji in 1489 his son established independent principalities in the surrounding
regions. The history of the next four centuries i.e. till the end of 18th century is a lengthy account of indifferent successors and their fights among themselves or with Muslim commanders of Delhi. Sovereigns Maldeo was the most notable-ruler among them who expanded his kingdom enormously during (1532-62) and brought in contact with the imperial territories of Agra and Delhi. This was during the time of Sher Shah. After the death of Maldeo however, Jodhpur was again overrun by the Mughals. The Mughal Empire began to disintegrate with the death of Aurangzeb in 1707 and the new aspirants of hegemony in North India made Rajputana a battle field to try their strength (District Census Handbook, 2011)

The rulers of Mewar and Marwar, the Marathas and the Pindaries, the Mughal governors of Malwa and Gujarat made inroads and spread devastation and misery all round. The spreads in Rajputana stopped only afterward 1818 A.D. when Chhater Singh of Jodhpur signed a treaty with the British. After that the reign of Takhat Singh (1843-1873) was comparatively longer. His age is noteworthy for two trials viz (i) the support given to the British by the leader at the time of the Indian Mutiny of 1857, in acknowledgement of which he was rewarded with a "Sanad" in 1862, recognizing his right of Adoption (ii) the "Durbar" held by Lord Mayo, the Viceroy at Ajmer in 1870 which the Jodhpur ruler did not attend. This patent the beginning of his battle with the British. Takhat Singh was succeeded by Jaswant Singh II (1873-1895) whose rule was marked by reforms and modernization of administration. He was followed by two minors in quick succession, Sardar Singh and Sumer Singh, then came Umaid Singh, who ruled up to June, 1947. In 1949, at the time of creation of the district, there were four sub divisions in it viz. Sojat, Bali, Jaitaran, and Pali. These four sub-division had six tehsils namely Pali, Sojat, Jaitaran, Bali, Desuri and Sendra. Future on Sendra tehsil was de-recognised between 1951 and 1961; Raipur and Kharchi tehsils were established (District Census Handbook, 2011)

2.2 Location and Size

Pali district takes its name from the town of Pali which is also the headquarter of the district administration. The place has been referred to as Palika in old inscription. The district situated from 24° 45’ to 26° 29’ north latitudes and 72° 47’ to 74° 18’ east longitudes. Its maximum length from North to South is about 192 km. and while its maximum breadth from East to West 166 km.
It shapes a common border with eight districts of Rajasthan, viz., with Nagaur district on the north, Ajmer district to the northeast, Rajsamand district to the east, Udaipur district on the southeast, Sirohi district to the southwest, Jalore and Barmer district on the west, and Jodhpur district to the northwest. The district is almost Snail like in shape and resembles an irregular triangle with undulated plains. With its total area 12,387 sq. km in 2011. The district ranked seventh in area in the state.

Source: Survey of India

Map 2.1
2.3 Physiography
Topography of the district is quite varied. Central part of the district is relatively flat and undulating while the Aravalli ranges constitute hills in the eastern fringe and link the district with Ajmer, Rajsamand, and Udaipur districts. Maximum part of the district falls under Luni river basin, where negligibly small parts in the south fall within West Banas and Sabarmati river basins. The general topographic elevation in the district ranges broadly between 150 m to 300 m above mean sea level. The lowest elevation of 149.3m MSL is noticed in Rohat block in the western part of the district whereas the highest elevation of 1,068 m above mean sea level in Bali in southern part of the district.
2.4 Drainage System
There is no perennial river in the district. Four tributaries of river Luni viz. Sukri, Luni, Bandi and Jawai flows in the district. There is no lake or natural spring in the district for irrigation purpose, a number of big and small tanks have been constructed. The M.C.M. capacity of Jawai Tank is 198.2176 litters and water tank capacity is 0.1699 M.C.M. litters. Out of these, the water capacity of Jawai Dam is maximum, which is located in Bali tehsil. The main dams which are being used for irrigation are Jawai, Raipur, Loonu, Hemawas Kharda and Biratia Khord Dam.

Source: Survey of India

Map 2.3

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2.5 Climatic Condition

2.5.1 Temperature

The climatic conditions of Pali district are marginally different from the typical arid western Rajasthan. Although, basically the summer season raises the temperature to 46 - 47 °C during peak (May-June) months, a large variation in temperature is found due to adjoining green and hilly areas. Winters are moderately cool during December-January when the mercury dips to 4 - 5 °C range.

![Temperature: The Study Area]

Source: India Metrological Department, Jawai Bandh (Pali), Government of India

2.5.2 Rainfall

Monsoon brings respite from long drawn summers and the rains during the months of July-October result into average rainfall of 450.7 mm and the relative humidity during south west monsoon period is normally very high, which remains quite low during the rest of the year, in the district. The climate of the district is dry and has extremes. It is very hot during summer and very cold in winter season. During year 2011, the maximum temperature of 45.4°Celsius and minimum temperature of 01.8°Celsius were recorded. January is coldest month and in May and June there is hottest period in the district. In 2011, relative humidity in the district was 65 percent. The table given below indicates the average temperature, humidity and rainfall of the district year-wise, during 2007-2011.
The rainy season remains active from 2^{nd} week of July to 3^{rd} week of September in the district. The south west monsoon takes place during this period. Seasonal rainfall may be seen in the following statement.

2.6 Forest

Prior to July 1971, the forest area of the district was under divisional forest officers and its headquarter was in Jodhpur. After 1971, it come in the control of Dy. Conservator of forest, Pali. Five categories of forest are found in the district which are located at Sadri, Desuri, Beejaji ka Guda, Sendrl and Pali. The maintenance of these forests is being carried out by the range officers with assistance of forest security officials. The forest of the district constitutes about 7.78 percent to the total area. The forest comes under subsidiary edaphic type of dry tropical forest. These are widely scattered over hillocks and ridges and those in the plains are known as grass birds. The forest have fewer and driest species along the border of Ajmer district whereas, the forest are denser and have more species along the borders of Sirohi and Udaipur. The forest are scattered over a large area, mostly in hills and rides. Those in plains are grass birds or tree savants. The forest are generally open and poorly stocked expect in forest block of Desuri range and Sadri range. The total forest area under the district is 963.58 sq. km out of 619.45 sq. km comes under the supervision of Dy. Chief Wild Life Warden, Udaipur.
Forest Categories | Reserve Forest | Protected Forest | Unclass Forest | Total
---|---|---|---|---
Total Area (Sq. km) | 817.37 | 143.70 | 2.51 | 963.58

Source: Forest Department, Pali.

Figure 2.5

Forest Area of Pali District

Source: Forest Department, Pali.

Total 84.83 percent of the forest area are under reserve category, 14.91 percent in the protected category and remaining 0.26 percent are unclass. The forest resources are very meagre. The requirements of the local people in respect of timber, firewood and other forest produce have been increasing at a faster rate than the formation of the new forest. The damage done by illegal cutting of the forest is unstoppable.

2.7 Geological Structure

Geologically, the district belongs to Delhi Super Group and Marwar Super Group. The Delhi Super Group comprises of Kumbhalgarh, Phulad Ophiolite sute, Sendra-Ambaji granite, Sirohi and Punagarh Group. The Delhi Super Group is overlaid by a sequence of un metamorphosed sedimentary rocks consisting of sandstone, limestone, siltstone and gypsum beds. The Marwar Super Group is divided into Jodhpur and Bilara Group which consists of sandstone, shale and limestone rocks. The Delhi Super Group rocks are intruded by granites and rhyolite. The predominant intrusive is the Erin Pura Granite. The Delhi Super Group is mainly exposed in NNE parts of the
district while Marwar Super Group is exposed in northern part in Jaitaran and Sojat blocks. Erin Pura granite & gneiss occupied almost 50 percent area of the district and exposed mainly in central, southern and south-eastern parts of the district. The geological formation of the district is represented by different igneous sedimentary and Meta sedimentary rocks. The Delhi Super Group rocks represented by Ajabghar Group occur near the eastern border of the district and consists of schists, phyllite, marble and basic volcanic. They are intruded by granites and rhyolites, the predominant of which is the Erin Pura Granite which covered the south and south eastern parts of the district. The Jalor types of granites are exposed south of Pali town and are generally pink in colour.

The Melani rhyolite (volcanic) cover only small areas restricted to the south west of Pali. The rocks of the Marwar Super Group occur in the northern part of the district and are presented by limestone, dolomite, sandstone and shales. Rich deposits of the minerals like lime stone, gypsum, asbestos, calcite, feldspar, clay, gypsum are found in the district. Phyllite and marble are found near the eastern border of the district, whereas granite and rhyolite in the south east of the district. Asbestos ids used in the industries engaged in the manufacturing of spume pipe and fitting. Calcite of high quality is found in the district which is used for the cement manufacture are found in Sojat, Kharchi etc. the contents of calcium carbonate in lime are as high as 96.21 percent.

Granite is found in Desuri, Kharchi, Bali, Raipur and Pali tehsils. Clay deposits are found in Jaitaran tehsil. Feldspar is occurred in Raipur tehsil and Thandi Beri, Birathiya Khurd and Bera. Calcite is also found in abundance in Raipur tehsil and Thandi Beri, Birathiya Khurd and Bera. Thus Pali district is rich in minerals whose extraction is done on contract basis. Feldspar, Quartz, Asbestos, Calcite, Gypsum, white clay and other clay, soap stone, Magnesite and Bali clay are considered to be principal minerals of the district. On the other hand limestone, Rhyolite, Marble, Masonary stone, Brick clay, sand and Granite are considered to be secondary minerals. The mineral wealth of the district is largely non-metallic.
2.8 Soil

The soil of the district is mainly of deep yellowish brown sandy. As per soil classification the district can be divide into four parts. The major soils found in the district and their percentage are shown below-

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Major Soils</th>
<th>Area in Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medium Light Yellowish Brown Sandy</td>
<td>12.10</td>
</tr>
<tr>
<td>2</td>
<td>Medium Light Yellowish Brown Loamy</td>
<td>30.25</td>
</tr>
<tr>
<td>3</td>
<td>Deep Yellowish Brown Sandy</td>
<td>43.76</td>
</tr>
<tr>
<td>4</td>
<td>Shallow Pale Brown Gravelly Loam</td>
<td>7.11</td>
</tr>
<tr>
<td>5</td>
<td>Other</td>
<td>6.78</td>
</tr>
</tbody>
</table>

Source: Agriculture Contingency Plan, Department of Agriculture Cooperation and Farmers Welfare, Government of India.

Figure 2.6

Source: Agriculture Contingency Plan, Department of Agriculture Cooperation and Farmers Welfare, Government of India.

2.9 Administrative Setup

Pali district is one of the six districts, those comes under Jodhpur division. District Collector is head of the district for revenue, Law and order matters. District Collector & District Magistrate is the head of District Administration. For administration and development, the district is divided in Sub Divisions and tehsils (sub-districts). The District Pali has 9 sub-divisions. Each of the sub-divisions is headed by a Sub-
divisional Officer (SDOs)/Magistrates, the officers are responsible for implementation of law and order matters in their respective sub-divisions. There are 9 Tehsil headquarters in Pali district and each one has a Tehsildar as an administrative officer who works in accordance with the Land Record System to serve for the rural farmers and land holders and is responsible for maintaining the revenue matters in their respective tehsils. For the purpose of the implementation of rural development projects/ Schemes under Panchayati Raj System, the district is divided in the 10 Panchayat Samities (Blocks). Block Development Officer or Vikas Adhikari is the Controlling Officer of each of the Panchayat Samiti to serve as extension and developmental executive at block level. The compositions of Panchayat Samities are as follows:

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of Panchayat Samiti</th>
<th>No. of Gram Panchayat</th>
<th>No. of Villages</th>
<th>Tehsil(s) (No. of Villages)</th>
<th>Census Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jaitaran</td>
<td>33</td>
<td>113</td>
<td>Jaitaran (113)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Raipur</td>
<td>35</td>
<td>141</td>
<td>Raipur (141)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sojat</td>
<td>37</td>
<td>123</td>
<td>Sojat (123)</td>
<td>Sojat Road (CT)</td>
</tr>
<tr>
<td>4</td>
<td>Rohat</td>
<td>23</td>
<td>81</td>
<td>Rohat (79), Pali (2)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Pali</td>
<td>22</td>
<td>83</td>
<td>Pali (83)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Rani</td>
<td>30</td>
<td>76</td>
<td>Pali (18), Desuri (58)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Marwar Junction</td>
<td>47</td>
<td>156</td>
<td>Marwar Junction (156)</td>
<td>Marwar Junction (CT)</td>
</tr>
<tr>
<td>8</td>
<td>Desuri</td>
<td>24</td>
<td>78</td>
<td>Desuri (78)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Sumerpur</td>
<td>29</td>
<td>68</td>
<td>Sumerpur (68)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Bali</td>
<td>39</td>
<td>111</td>
<td>Bali (111)</td>
<td></td>
</tr>
</tbody>
</table>

Source: District Census Hand Book.
2.10 Transport and Communication

The district is well connected by the North Western Railway. The Delhi-Ahmedabad board-gauge railway line passes from Sendra railway station to Nana via Sojat Road, Marwar Junction, Fhalana and Mori Beri. A part of this district is also served by the north western railway from Marwar Junction to Phulad. There are 31 railway station in the district. Another railway line also passes through the district from Marwar Junction to Rohat. All-important places of the district are connected with bus rousts. Four state highways traverse the Pali district at different points. Besides it three major district roads also running across Pali. The national highway, state highways and the major roads are marinated by State Public Works Department.

2.11 Demographic Structure

According to census 2011, the total population of Pali district is 20,37,573 comprising 10,25,422 males and 10,12,151 females and district ranked fourteenth in the state. It shares almost 2.97 percent of state population but 3.62 percent of state area. The density of the district is 164 person per sq. km. which lower than the state density 200 person per sq. km. The district ranked twenty eight in term of population density. Nearly 77.4 percent population of the district lives in rural areas whereas proportion of urban population is 22.6 percent. In census 2011, the sex ratio of the district is 987. The district is one among the three districts having highest sex ratio in the state (Dunrgapur district 994 and Rajsamand district 990). The district has high child (age group 0-6 years) sex ratio i.e. 899.

There are only 144578 Scheduled Tribe persons reside in the district which is only 7.1 percent of total population. Literacy rate of the district 62.4 percent is lower than the state average 66.1 percent. Male literacy rate of the district 76.8 percent is lower than the state literacy state literacy rate 79.2 percent while female literacy rate of the district 48.0 percent is lower than the state literacy rate 52.1 percent. Work participation rate of the district 41.3 percent is lower than the state 43.6 percent. The male and female work participation rates of the districts are 51.1 and 31.5 percent respectively. Pali district has mainly Hindu and Muslim population. As per 2011 census the proportions of Hindu and Muslim population in total population are 91.8 and 7 percent respectively. The proportion of Jain population in the district is 0.9 percent.
2.12 Religious Group

The majority of the population 91.80 percent of Hindu, their total number at the time of 2011 Census was 1,870,543 (939,751 males and 930,792 females). The number of Muslims 143476 (73,765 males and 69,711 females) and formed 7.04 percent of the population. In the same year Janis numbered 18974 (9,550 males and 9,424 females) and formed 0.93 percent of the population. The number of Sikh, Christian and Buddhist was 1540 (783 males and 757 females), 1345 (672 males and 673 females) and 141 (79 males and 62 females) and formed 0.08 percent, 0.07 percent and 0.01 percent of the population respectively.
References:


Department of Mines and Geology, Government of Rajasthan.


India Metrological Department, Jawai Bandh (Pali). Government of India.

MSME, Department of Institution. *Brief Industrial Profile of the Pali District, Jaipur*.

MSME, Department of Institution. *District Industrial Center 2016-201. Pali, Jaipur*.

