CHAPTER II:

LAND AND THE PEOPLE IN

PANCHMAHALS, BARODA AND BROACH DISTRICTS

1. THE LAND

(A) Location and Physiography

Panchmahals, Baroda and Broach districts lie between 21°.30' and 23°.15' north latitudes and 72°.35' and 74°.15' east longitudes. These districts are situated in the central and southern part of the State of Gujarat in Western India. These districts are bounded on the north by the Sabarkantha district of Gujarat and the Banaswara district of Rajasthan, on the west by the Kaira district of Gujarat and the east by Jhabua district of Madhya Pradesh and Khandesh district of Maharashtra.

A major part of the district Panchmahals belongs to a hilly tract. The whole of the northern and eastern parts comprising mainly Santrampur, Jhalod, Dahod, Limkheda, Devagad Barida, Jambughoda and parts of Lunawada talukas are covered by hills and forests intercepted by plain
cultivated land in villages situated in the river valleys. The western part of this district comprising Kalol, Halol, Godhra and parts of Lunawada talukas is a plain area. It is cut by rivers and intercepted by hills of low attituded except the Pavagarh hill, whose peak rises to 826.36 metres above the sea level.

Baroda district has less hilly tracts than the other two districts. In this district, Tilakwada, Naswadi and Chhotaudaipur talukas are hilly and other parts of the district are plain with black cotton and loamy soils.

In Broach district also, eastern part belongs to a hilly tract consisting of a junction between the Satpura and Sahyadri ranges. This district can be divided into three geographical regions — the alluvial plain on the north and north-west, Rajpipla hills in the south-east and then northern adjuncts in the chhotaudaipur ranges. Though, the major portion of the land of this district is cultivated, some parts are also covered with brushwood and forest especially in the eastern part of the district.
Large saline mud flats and mangrove swamps exist near the coast on the west.
(B) **Hills and Rivers**

In these district Pavagarh hill is the chief natural feature. The Pavagarh hill is situated at the distance of 7 Km. east from Halol in Panchmahals. The hill about 41.84 Km round, rises with massive but clear-cut outline to about 826.36 metres above the sea level. Its base and lower slopes are thick and are covered with rather stunted timber. Ratanmal is another important hill in this region. Ratanmal hill is situated in the Limkheda taluka of Panchmahals. There is an approach road from the Barida town covering a distance of nearly 48.28 Kms.

The number of eminences deserving the name of hills is very small in Baroda district. In Sankheda taluka, a little more than two Kms north-east of Bhatpur village, there occurs a narrow range of quartzite which is designated as Gujalpur hill. Crossing the Orsang river southward, the first of the island like inlids of the old rock is met near another hill known as 'Vidhaswami mata' hill which is about 3.5 Kms east of Sankheda. About five Kms south of Sankheda rises a low hill known as 'Ghora' hill.

In Broach district, Rajpipla hill in the south-east
with its northern adjuncts in the Chhotaudaipur range is another very important geological feature.¹

These districts are very rich in water resources and they are drained by many important rivers. Mahi is the biggest river passing through Panchmahals and Baroda districts. It originates in Malwa hills in Rajasthan and flows through Santrampur, Lunawada, Shehera and Godhra talukas of Panchmahals and enters the Kaira district thereafter. The river Narmada which is also known as the Rewa originates in the hills of Amarkantak in Bilaspur district of Madhya Pradesh. This river separates Dabhoi Sinor talukas of Baroda from Nandod and Ankleshwar taluka of Broach and passes through the district of Broach from Koral downwards. River Tapi flows through the south-eastern parts of Broach. It is the second important river of south Gujarat.

1 For Physiography, Hills and rivers the following books have been referred.

(B) Gazetteer of India: Panchmahals District, Govt. of Gujarat, Ahmedabad, 1972.
Ujal, Mishri, Machhan, Anas, Goma, Kharod, Kali, Karad, Suki, Khatlaer, Bhandara, Wand and others are minor rivers of these districts. Most of these rivers are tributaries of big rivers. In Panchmahals district, Panam, Chikari and Kum are important rivers for irrigation. Besides Narmada and Tapi, Kim and Wand rivers are also considerably important in Broach.

(C) Climate and Rainfall

The climate of these districts is warm and dry. But the coastal area of Broach is characterised by high humidity for the larger part of the year. The cycle of seasons consists of winter season from November to February, Summer season from March to June and the Monsoon from the second week of June to second week of October. The winter season is preceded by a short autumn which succeeds the monsoon. May is the hottest month of the year and sometimes the temperature goes upto 43°C. December is the coldest month and temperature falls upto 9°C.

The average annual rainfall in these districts is 855.6 mm. Monsoon in these districts are generally accompanied by gusty winds.
(D) **Soils and Minerals**

Soil is the reflection of natural environment. In human ecology it plays a very important role. There is a wide variety of soil cover in these districts. As compared to the rest of Gujarat, Panchmahals display a complicated geology and varied soil. The contour of land rises towards the east and south-east and we find rocks of quartz, limestone, sandstone and granite spread in this area. Towards the Pavagarh hill we find trap formation of the type of Deccan. The primary soils of this area are poor, shallow and light coloured. In some parts there is rich loam which is capable of holding a good amount of moisture. Towards the north-west of Godhra and Kalol talukas, there is covering of sandy loam, while in the south of Halol there is narrow belt of rich black soil. Excepting some places in Baroda and Broach, most of the area forms level plain.

Broadly soils of these districts can be classified in four groups: (a) Kiari soil (b) Bhatha soil, (c) Gorat soil and (d) Kali soil (deep black cotton soil).

Kiari soil is very fertile soil. Paddy wheat and gram are grown on these Kiari soils that are seen in water ways of minor nature.
The Bhatha soil is formed by the deposits of alluvium brought by the large rivers in floods. They are usually found along the banks of Narmada, Mahi, etc.

The Gorat variety is more common in Broach. It has a large proportion of sand and insoluble matter. Often it is marked by the local slopes from which black soil is washed out.

The deep black cotton soil is of deep black colour and is very fertile. It shows an exceptional capacity of retaining moisture but it cracks under the hot sun. The black cotton soil has the least amount of sand and Bhatha soil has the highest amount of sand.

Out of these districts Panchmahals and Broach are important for their minerals and quarrying. These districts are well endowed with a variety of rocks, suitable for building construction and also for road metal, railway ballast etc. Granite is the most commonly used building stone in this area. Lime stones are also found in these districts. Extensive deposition of fine clay occurs at Rajpara, Balituja and Pingli in Kalol taluka. This material is utilized for pottery at Derol in Panchmahals.

Traces of copper ore are found in Jhar and Rajagadh-Palla area in Panchmahals. Hematite ore associated with quartz, hematite schists are noticed near Var, Gundiveri and Paniara in Panchmahals, and at some places in Broach districts. Besides these lead, manganese, mica etc., are also found in these districts.

Hot mineral springs occur at Tuva about 16 Kms west of Godhra and in Mahi river bed near Kolliary and Prabha villages in Panchmahals district. A large belt of oil and natural gas has been discovered near Ankleshwar in Broach district.

(E) Flora and Fauna

Various types of flora are found in these districts. Forests of these districts can be classified into three local subgroups: (a) Teak type, (b) Mixed type and (c) Miscellaneous type.

Most of the forests are on the lower slopes of the hills and in the valleys. Teak type forests are predominant in these districts. The main associates of teak in this area are Sadad, Shisham, Khair, Mahuda, Khakhar etc. Ratanmal
forest, which is one of the big forests in these districts is situated in Panchmahals. It mainly consists of teak wood. There are some other forests in Panchmahals which have miscellaneous types of trees. Rajpipla, Jhagadia, Dediapada, Valia, Sagbara talukas in Broach are having good forests consisting of the same type of plants. The mixed type of forest grows on shallow and intertile soil. Occurrence of some thorny species is characteristic of such areas. Mango is the main fruitcrop that grows in these districts. Other fruits like Guava, Pomegranate, Papaya, Lemon etc. are also grown on small scale.

The chief domestic animals of the districts are oxen, cows, buffaloes, sheep, goats and donkeys and horses. Almost all the farmers keep some domestic animals according to their requirements. In some of the interior villages in these districts buffaloes are also used for light agricultural operations. Camels are also seen in the eastern part of the Panchmahals and are used for draught purposes. Some tribal people rear goats and sheep. Poultry keeping is also common in tribal areas.

In the beginning of this century, there were plenty of
carnivorous animals in these districts. But now almost all have vanished except a few species like Jackal, Indian wolf, wild dog, Indian fox and in rare cases, Indian panther.

Some herbivorous wild animals like nilgai, dear, gazella, hare, wild goat and wild pig etc. are also found. In rare cases four horned antelope, sambar, blackbuck and chinkara are also found.

These districts have a rich and wide variety of birds. The central Indian red vented bulbul, tailor bird, black capped black bird, grey jungle fowls, large Indian parakeet, common hawk-cuckoo, the golden beaked wood pecker, Indian sarus, crane, peacock etc. are found besides very common birds like parrot, sparrow, vulture, pigeon etc.

Various types of snakes are also found in these districts. The Cobra (Naja-Naja), nag, common krait (Russels viper), Chital etc. are common poisonous snakes found in these districts. Among the non-poisonous snakes, python (Ajgar) is fairly common in these districts, though mostly confined to the wooden area.

The fish resources of the districts are confined to

3 Gazetteer of India: Panchmahals and Broach, op.cit.
tanks, rivers and irrigation reservoirs. Common varieties in these districts are Barwascatla, Rohu Nagai (Mrigal), Begado (Fringe tipped cap), Magara, Mully (fresh water shark), Katiya (Singola), Bata, Kalawal (Kalbasa) Murral, Dol (snake headed fish) etc.

2. THE PEOPLE

(A) Religion and Castes

These districts have a predominant Hindu population. People of other religions are Muslims, Christians, Jains, Sikhs and Buddhists. Division of population by various religions is shown in Table 2.1. Among Hindu population there are a number of sects, such as Shaivas, Vaishnavas, Swaminarayan etc. Muslims are divided into two sects: the Sunnis and the Shias. The former are more common than the latter. There is another community known as Satpanthy. They follow the religious practices and rituals of Hindus and Muslims both.

Among the Hindus there are several castes such as Brahmins, Banias, Bhatias, Patidars (Kanbis), Rajputs, Kachhis, Malis, Paliliyar, Kolis, Ghanchis, Bhavsars,

<table>
<thead>
<tr>
<th>Population</th>
<th>Number of persons in the district of</th>
<th>Percentage to total population of the District of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panchmahals</td>
<td>Baroda</td>
</tr>
<tr>
<td>Total population</td>
<td>1848804</td>
<td>1980065</td>
</tr>
<tr>
<td>Hindus</td>
<td>1750578</td>
<td>1795635</td>
</tr>
<tr>
<td>Muslims</td>
<td>83857</td>
<td>154352</td>
</tr>
<tr>
<td>Christians</td>
<td>6217</td>
<td>7550</td>
</tr>
<tr>
<td>Jains</td>
<td>5629</td>
<td>17394</td>
</tr>
<tr>
<td>Sikhs</td>
<td>980</td>
<td>2587</td>
</tr>
<tr>
<td>Buddhists</td>
<td>28</td>
<td>289</td>
</tr>
<tr>
<td>All others</td>
<td>1215</td>
<td>2258</td>
</tr>
</tbody>
</table>

Source: Census of India, 1971: District Census Handbook of Panchmahals, Baroda and Broach.

Sonis, Kansaras, Kadiyas, Salats, Hajam, Dhobi, etc.

Among the Muslims, Saiyeds, Shaikhs, Pathans, Arabs and Mughals are the main castes. And the Ghanchis and Boharas are converted Muslims. Scheduled castes, which are at the lowest ladder of social hierarchy among the Hindu, constitute, 3.68%, 5.80% and 4.83% of the populations of Panchmahals.
Baroda, and Broach districts respectively. There are 12 scheduled castes in PANCHMHALS district, 13 in Baroda district and 12 in Broach district of which the most numerous are the Mahyavanshi, Dhed, Vankar, Maravankar, Bhangi, Mehtar, Olgana, Bhambi, Rohit etc.

These districts have a large population of scheduled tribes. There are 17 scheduled tribes in PANCHMHALS, 18 in Baroda and 18 in Broach districts and constitute 38.55%, 23.89% and 43.88% of the total population of these districts respectively. The Bhil group of tribes including Bhil, Garasians, Dholi Bhils, Dungi Bhils, etc. and the Naikda or Nayaka including Cholivala Nayakas, Kapadia Nayakas, The Patilia, the Rathwa and the Kolidhar, Koli, Kolgha, Tadvi, Dubla, Talavias, Halpatis etc. are the principal scheduled tribes of these Districts.

(B) Language and Literacy

Gujarati is the mother tongue of the majority of the people of these districts, and is the common language of
communication for almost all the people. Other main languages include Hindi, Urdu, Sindhi, Marathi and Marwari. Most of the people are bilingual. The Gujarati language has dialects or 'boli' which are only spoken variants of speech. A slight local variation in speech and accent is formed in different parts and different districts or in different communities, which retain special feature of their own. Table 2.2 describes the number of people speaking different languages in these districts.

According to 1971 Census, the proportions of literate population in Panchmahals, Baroda, and Broach district are 22.82%, 40.67% and 35.73% respectively. Thus Baroda has the highest proportion of literate population and Panchmahals has the lowest. Female literacy is generally much lower than the proportions described above which include male and female both. The proportions of female literacy are: 11.23% in Panchmahals, 29.69% in Baroda and 24.4% in Broach.

### Table 2.2: Number of People speaking different languages in Panchmahals, Baroda and Broach districts - 1971

<table>
<thead>
<tr>
<th>Languages</th>
<th>Number of persons in the district of -</th>
<th>Percentage to total population in the district of -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panchmahals</td>
<td>Baroda</td>
</tr>
<tr>
<td>Gujarati</td>
<td>1792092</td>
<td>1786835</td>
</tr>
<tr>
<td>Urdu</td>
<td>25351</td>
<td>48932</td>
</tr>
<tr>
<td>Hindi</td>
<td>15481</td>
<td>36788</td>
</tr>
<tr>
<td>Sindhi</td>
<td>7916</td>
<td>21145</td>
</tr>
<tr>
<td>Marathi</td>
<td>4148</td>
<td>68837</td>
</tr>
<tr>
<td>All others</td>
<td>3818</td>
<td>17528</td>
</tr>
<tr>
<td>Bhil/Bhitoch</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Source: Census of India, 1971; District Census Handbooks of Panchmahals, Baroda, Broach.

(C) Housing and Living

The type of houses built in these districts vary with the locality and the level of living and culture of the community to which the inhabitant belongs.
Town houses of the upper class are generally built on a plinth raised from two to four feet above the street level. This plinth is reached by two or three steps. The steps are generally made of stone or brick masonry and cement plaster. In the towns, most of the houses are built of bricks and roofed either with mangalore tiles, country tiles or galvanized corrugated iron sheet. Now-a-days flat roofs of cement-concrete are becoming more common. The traditional pattern of house-plan can be described as below:

Along the outer edge of the plinth is kept an open 'otala' (terrace). Passing through the main entrance the house is found to consist of a rear portion, separated by a small courtyard open to sky. The first room in the house on entering is called 'parsal'. It is a drawing room which is also at times used as a bed room. The 'parsal' leads to 'chawk' a small open court. The floor of this court is lined with cement and may be used as a bathing place. On one side of the court is the water-room, 'paniyara'. On the other side (generally on the left) is cooking room - 'rasoda'. In the water room are kept large brass pots and clay pots filled with water. Beyond the chawk there may be an open
varandah meant for the use of women and in which is provided a swing cot. Next to varandah or behind the court and opposite the entrance there are generally one or two chambers 'ordas' which are more or less dark and are used as store-rooms for grain and firewood and some times as a bed-room for the women of the house. Latrines and bath-rooms are located either on 'otalas' on front of the house or at the back of the house as per convenience.

To get to the upper floor, there is generally, in one corner of the entrance or on the 'otala', a wooden stair-case with a rope hung to support climbing or descending. The front room in the upper story is a parlour which is a sort of drawing room or diwan-khana. On the upper story there would not be as many rooms as on the ground floor. Mostly the upper story of the house is used for the guests. Such type of houses are common among the people of Vania, Patel and Kanbi castes etc., i.e., those belong to the higher classes.

Another type of houses which are common among middle classes are quite simple ones. Generally such types of houses have two rooms. The room on the front side is sometimes used
as a portico during the day and as bed-room during the night. Second room is used as a kitchen which also has a 'paniyara' (place for keeping water) in a corner. The main entrance is usually in the middle of the front side and can be closed by a wooden door. The house floor is usually levelled and covered with a layer of clay and cowdung. For this purpose clay is spread over the ground and is well rammed into a levelled floor. The cow-dung collected for this purpose is mixed with water and worked with feet and hands into a kind of semi-liquid paste. The woman of the house lay down the coating of the paste, spreading it out nicely and making sure that whole surface becomes glossy. But in many villages they do not take care about floor. Before the main entrance there is usually a somewhat elevated open platform. Here the men sit, the women gossip and do their house-work. Houses with latrines, bath-rooms and windows are rare. This type of houses are common among the Kumbhars.

The third type of houses that may be called 'huts' are built by Bhils and some other tribes, generally belonging to the lowest strata of the society. Such type of huts are usually built of bamboos between supporting columns of wood and are strongly plastered with a mixture of cowdung grass
and mud. Sometimes it has double rooms without any ventilation. Otherwise, generally it has a single room where all members of the family sleep. In front of the hut, usually, there is a place where they keep their animals, and it is also used as a courtyard.

3. AGRICULTURE, INDUSTRY AND COMMUNICATION

Out of the total reported area of the Panchmahals district consisting of 893,700 hectares, 502,400 hectares are under cultivation including current fallows. 16,600 hectares are under irrigation. Maize, rice, groundnuts and bajri are the principal crops grown in this districts.

Total reported area of Baroda district consisting of 790,300 hectares, 547,100 hectares are under cultivation, including current fallows. 559,000 hectares are under irrigation. Cotton jowar, rice, fodder crops, bajri, groundnut and tobacco are the principal crops grown in this district.

Out of the total reported area of Broach district consisting of 773,100 hectares, 472,800 hectares are under
cultivation including current fallows, while 34,300 hectares are under irrigation. Cotton, jowar, wheat and rice are the principal crops grown in this district.6

All the three districts are predominantly agricultural from the point of view of the major source of employment. Pattern of employment by main occupational categories is shown in table 2.3. It is seen that 87.58% of employment in Panchmahals, 78.82% of employment in Broach and 65.39% of employment in Baroda district is in agricultural sector. Thus, of all the three districts Panchmahals is more dependent on agriculture and district Baroda has more diversified pattern of employment. At the same time, the agriculture in Panchmahals is not as good as in other districts from the point of view of productivity. This is because soil in Panchmahals is not uniformly fertile, and rainfall is not regular and well distributed, and irrigation facilities are inadequate, being almost lowest in Gujarat.

As far as industrialisation is concerned, in 1971, the Panchmahals had 6,997 industrial establishments of various types including household industries. In all 17

6 These figures and those used subsequently in this section, are based on Census of India, 1971, series 5, Gujarat, Part IXA, Administrative Atlas.
Table 2.3: Pattern of Employment by Main Occupational Categories in Panchmahals, Baroda and Broach Districts.

<table>
<thead>
<tr>
<th>Occupational Categories</th>
<th>Panchmahals Persons</th>
<th>Panchmahals Percentage</th>
<th>Baroda Persons</th>
<th>Baroda Percentage</th>
<th>Broach Persons</th>
<th>Broach Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cultivation</td>
<td>541337</td>
<td>79.80</td>
<td>210093</td>
<td>33.10</td>
<td>122915</td>
<td>31.38</td>
</tr>
<tr>
<td>2. Agricultural labour</td>
<td>52746</td>
<td>7.78</td>
<td>204966</td>
<td>32.29</td>
<td>185841</td>
<td>47.44</td>
</tr>
<tr>
<td>3. Household industry</td>
<td>9269</td>
<td>1.37</td>
<td>11908</td>
<td>1.88</td>
<td>7668</td>
<td>1.94</td>
</tr>
<tr>
<td>4. Manufacturing other than households industry</td>
<td>7688</td>
<td>1.13</td>
<td>68123</td>
<td>10.73</td>
<td>14614</td>
<td>3.73</td>
</tr>
<tr>
<td>5. Trade &amp; Commerce</td>
<td>19552</td>
<td>2.88</td>
<td>40904</td>
<td>6.44</td>
<td>18041</td>
<td>4.61</td>
</tr>
<tr>
<td>6. Others</td>
<td>47763</td>
<td>7.04</td>
<td>68749</td>
<td>15.56</td>
<td>42720</td>
<td>10.90</td>
</tr>
<tr>
<td>Total Employment</td>
<td>678355</td>
<td>100.00</td>
<td>634783</td>
<td>100.00</td>
<td>391799</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Census of India, 1971, Series-5, Gujarat, Part IX-A, major groups of industries were returned from the district. Baroda had 10,245 industrial establishments of various types including household industries, and in all 19 major groups of
industries were returned from this district. Broach had 5,370 industrial establishments of various types including household industries, and 17 major groups of industries were returned from this district. The employment figures and the percentage of total employment generated by the industrial sector in these districts is given in Table 2.3. It is seen that the percentage of total employment generated in industrial sector is 2.50% for Panchmahals, 5.67% for Broach and 12.61% for Baroda. Thus, relatively, Baroda is the most industrialised district, and Panchmahals is the least industrialised. Baroda is particularly important for modern manufacturing establishments, particularly in pharmaceuticals, petro-chemicals and textile industries. Because of a higher degree of industrialization, employment in trade and commerce is also relatively higher in Baroda district.

In the whole of Gujarat - Panchmahals, Baroda and Broach occupy a good position in respect of communications from the ancient period. These parts had a main running route in the north-south directions. The northern route passing through Baroda and Panchmahals moved eastwards and went to Malwa. It was known as Malwa-Dohad route. Others
were the river valley routes. All these routes were connected to Broach 'port of Barigaza' in ancient time. 7

At present also these districts lie on the trunk rail route (broad gauge) between Delhi and Bombay. Besides there are narrow gauge feeder railway lines in these districts. Similarly there are important national highways passing through these districts. These districts have five types of roads known as National Highway, State highway, major district roads, other district roads and village roads. State transport Buses ply in most of the districts. Navigation is also found in some parts of the river Narmada in the western part of district Broach. Broach, Tankari, Dahej and Kavi are the ports of this district under effective operation.