

Chapter-2

GEOGRAPHICAL SETTING AND CULTURAL HISTORY OF GUJARAT

Geographical Divisions

Gujarat can be geographically categorized into three distinct regions: Kuchchha, Saurashtra, and Mainland Gujarat. Kuchchha, which was once an isolated island, is characterized by marshy and sandy areas. However, it is now connected to the mainland through a stretch of salty marshland that was previously part of the sea. Saurashtra, on the other hand, benefits from the presence of numerous small and medium-sized rivers like the Badar and Shetrunji, resulting in the formation of a fertile coastal belt with recent alluvial deposits. The landmass of Saurashtra, which encompasses Gujarat's mainland, can be further categorized into three zones: the coastal region in the south and central parts, the expansive area shaped by alluvial and aeolian sand deposits from rivers like the Mahi and Sabarmati, and the eastern hilly and forested tract that acts as a link between Malwa, Gujarat, and Rajasthan.

The state of Gujarat covers an approximate area of 20,000 square kilometers and is situated between latitudes 20°10' and 24°50' and longitudes 68°40' and 74°40'. Its coastline has historically attracted seafarers for trade activities, leaving behind cultural influences from the Arabs, Portuguese, Dutch, Mughals, and British. Gujarat's physiography exhibits diverse physical features, ranging from mountainous highlands to coastal lowlands. Positioned along the Tropic of Cancer, Gujarat boasts a varied landscape, a complex drainage system, varying soil deposits, diverse vegetation types, and abundant wildlife. The state's strategic geographic location allows easy access from the north, northwest, west, and south, contributing significantly to its rich archaeological history, spanning from prehistoric to historic periods.

Landforms

Three physiographic zones in Gujarat—Mainland Gujarat, Saurashtra, and Kuchchh—were described by SS Merh (1995), each of which is distinguished by a distinctive coastline.

Gujarat's mainland is divided into two distinct sub-zones. the western alluvial plains and the eastern rocky hills. The principal mountains of western India, the Sahyadri, Satpura, and the Aravallis, which reach heights of 300-1100 m, extend into the eastern rocky highlands. Beyond the River Tapi in the southern portion of the Sahyadri, there are east-west trending hill ranges with flat-topped hills and shallow, wide valleys. The whole zone has a rugged, stepped topography highlighted with step faults, horsts and grabens. The granite and

Archaean metamorphic rocks that make up the Vindhyan ranges between the Narmada and Mahi Rivers have no discernible tendencies, but the ranges near Chota Udaipur have an east-west trend.

Drainage

Gujarat's local topography and climate, including those of Gujarat's mainland, Saurashtra, and Kuchchh are related to the state's river drainage system. The rivers of the central and southern part of mainland Gujarat are all large perennial rivers such as the Tapi and Narmada which originate in the interior of peninsular India, the Mahi, which springs in Malwa, and the Sabarmati, which originates in the southwest Aravalli Range.

These rivers are deep, have a significant carrying capacity, and can only be crossed at specific locations. Gujarat's primary agricultural regions are made up of the fertile belts of these rivers and their tributaries. All of the shallow seasonal rivers in North Gujarat originates from the Aravalli Range. The Saraswati, Rupen, and Banas are just a few of the rivers that normally solely carry monsoonal runoff. All of the shallow seasonal rivers in Kuchchh and Saurashtra only transport monsoonal runoff. The rivers rise from the corresponding central highlands of each peninsula. Although Kuchchh does not have any rivers that are very long, several of the smaller rivers have left deep impressions on the land, indicating that they originally carried more water.. Saurashtra is home to several significant rivers, including the Bhadar, Shetrunji, Hiran, Sukh Bhadar, and Bhogav.

Soils of Gujarat

The types of soils found in Gujarat are a direct outcome of the underlying rock formations and the local climate. Gujarat's soils are classified into five main types by Merh (1995): entisoils, inceptoils, vertisoils, aridsoils, and alfisoils. Entisoils have developed in regions with a tropical semi-arid climate and receive rainfall ranging from 55 to 950 mm. They are widespread throughout Gujarat and typically have a calcareous and alkaline nature. While inceptisoils have been formed in tropical semi-arid to humid areas with rainfall between 500 and 2000 mm. They are commonly found in the coastal plains, Saurashtra, and mainland Gujarat, with textures ranging from silty to clayey.

Vertisoils, often known as "black-cotton soil" locally, are linked to climates ranging from semi-arid to humid. They are geographically restricted to the upland river plains in mainland Gujarat and the northeastern part of Saurashtra. These soils possess a clayey composition.

Arid soils are usually associated with sand dunes, aeolin deposits, and aeolin silts, and they have developed in semi-arid to arid climates with less than 450 mm of rainfall. They are primarily located in the Kuchchh region. The final soil type, alfisols, forms above sandstone or alluvial deposits in semi-arid to sub-humid climates with an annual precipitation range of 500–700 mm. Geographically, they can be observed in areas like Paccham Bet, Kuchchh, and northern mainland Gujarat.

Geology of Gujarat

The geology of Gujarat can be categorized into four primary groups: Precambrian, Mesozoic, sedimentary deposits of marine and fluvial origin in Saurashtra and Kuchchh, Deccan Trap basalts and associated deposits, and more recent sediments. Precambrian geological formations are visible primarily on the mainland, where they are evident in the mountainous landscapes of the Aravalli, Vindhya, Satpura, and Sahyadri Ranges. Gujarat has a complete absence of Paleozoic period deposits except for the Deccan Trap strata, which are dated to approximately 66 million years ago towards the end of the Mesozoic era and are prominently found in most of Saurashtra, as well as parts of Kuchchh and southern mainland Gujarat. The Ranns and the fluvial deposits surrounding the Gulf of Khambat are covered in more recent sediments, predominantly composed of recent alluvial materials. Additionally, sizable miliolite beds can be observed along the Saurashtra coast.

Climate

Gujarat experiences a wide range of climates due to its geographical features and the influence of the sea and monsoon. In South and Central Gujarat and Southern Saurashtra, the climate is typically characterized as humid tropical, with an annual rainfall ranging from 80 to 200 cm. Conversely, North Gujarat, Kuchchh, and the Ranns have arid to semi-arid climates, receiving annual rainfall of less than 20-40 cm. Saurashtra, on the other hand, has a dry climate with rainfall levels between 40 and 80 cm. The region generally has high average temperatures, with summertime temperatures often exceeding 45°C, and winter temperatures rarely dropping below 8°C.

Flora and Fauna

The diverse geography and climate of Gujarat have created a wide range of habitats that support various forms of life. The vegetation in the state varies from semi-arid grasses and shrubs like babul acacia, caper, Indian jujube, and toothbrush bush to wooded areas with trees

such as teak, bakligum, axlewood, and Bengal kino (*Salvadora persica*). This diversity of ecosystems has led to a rich array of animals, fish, and bird species inhabiting or migrating through Gujarat, influencing the state's plant life. These include diverse deer and antelope species, forest-dwelling animals like bears, as well as rare creatures like lions and wild asses (*Equus hemionus*). Additionally, Gujarat's extensive coastline has contributed to the presence of a wide variety of freshwater and marine fish species, as well as various shellfish species.

Political Divisions of Gujarat

As previously mentioned Gujarat state is positioned on the western coast of the Indian Peninsula. It is bordered by the Arabian Sea to the west, Sindh (Pakistan) to the northwest, Rajasthan to the north, and shares its northeastern boundaries with Madhya Pradesh and Maharashtra to the east.



Map 2.1: Boarding states of Gujarat

Human habitation in Gujarat dates back to ancient times, including the Stone Age periods such as Paleolithic and Mesolithic eras. Evidence of this early settlement is found in the form of tools from the Lower, Middle, and Upper Paleolithic periods, discovered in the valleys of rivers like Sabarmati, Tapi, Narmada, and Mahi, along with artifacts from the Neolithic and Mesolithic periods.

During the Protohistoric period, which occurred in the third and second millennia BC, Gujarat witnessed the spread of the Harappan (Indus Valley) civilization and the emergence of Early Farming communities. The presence of human settlements from this era in places like Lothal, Rangpur, Rojdi, Prabhas Patan, Padri, and others reflects the transition of a local farming culture into a setup influenced by or borrowing from the Harappan civilization. These historical periods have been extensively studied through archaeological discoveries, including pottery, various types of tools, and excavation data.

2.2 CULTURAL-HISTORICAL BACKGROUND

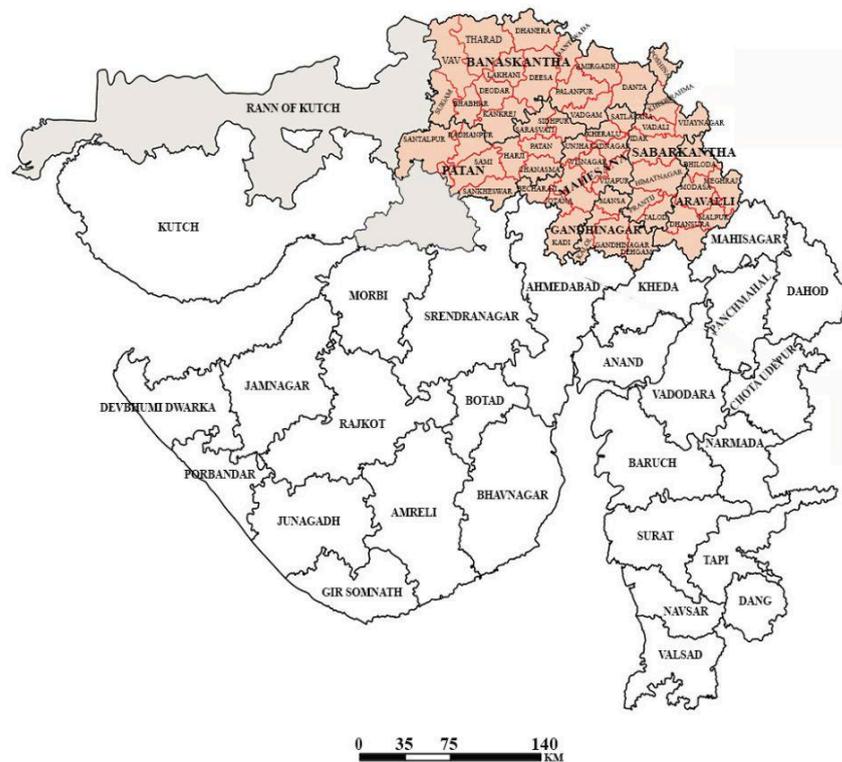
I	Mauryan Period	322 BCE- 185 BCE.
II	Indo-Greek Period	185 BCE- 78 CE
III	Kshatrapa Period	78 CE- 397-8 CE
IV	Gupta Period	400 CE- 470 CE
V	Maitraka- Gujara Period	470 CE- 745 CE
VII	Solanki Period	11 th CE- 13 th CE
VIII	Sultanate-Mughal Period	13 th CE- 17 th CE

Gujarat's historical timeline commences with the Mauryan dynasty, followed by periods under the Gupta and Rajput kingdoms. This history is documented through sources such as inscriptions, coins, texts, and literary works. Ashoka's rock edicts in the Girnar Hills signify the Mauryan era's influence in the region. After the Mauryan Empire's decline, Gujarat was ruled by the Sakas or western Kshatrapas, notably under Mahakshatrapa Rudradaman, who extended his dominion over Malwa, Saurashtra, Kachchh, and Rajasthan.

During the 4th and 5th centuries, Gujarat was part of the Gupta Empire until the Maitraka dynasty of the Valabhi kingdom succeeded them, governing Gujarat and Malwa for several centuries. Valabhipura, situated along the eastern coast of the Kathiawar Peninsula, became a renowned center for Buddhist, Vedic, and Jaina learning. The Gurjara-Pratiharas followed the Maitrakas and were later replaced by the Solanki dynasty in the eighth and ninth centuries. The Solankis, under rulers like Siddharaja Jayasimha and Kumarapala, expanded Gujarat's borders and made significant strides in economics and culture, with the famous author Hemacandra flourishing during this period. The era came to an end around 1299 when Alaud-din-khilji, Sultan of Delhi, defeated Karnadeva Vaghela, the last ruler of the Vaghela dynasty.

Subsequently, Gujarat fell under the Muslim governance, which lasted until the Marathas triumphed over the Mughals. The city of Ahmedabad was founded in 1411 by Ahmad Shah, Gujarat's first independent sultan who shifted the capital from Patan. Toward the late 16th century, Akbar's conquest brought Gujarat under Mughal rule, which persisted until the Marathas assumed control in the mid-18th century. (District Gazetteers, Mehsana, 1975. Pp. 94-95).

Currently, Gujarat State is geographically divided into six regions: north, central, south, east, west, and the focal area of this research is North Gujarat, encompassing six districts - Mehsana, Patan, Banaskantha, Sabarkantha, Gandhinagar, and Aravalli. The selection of this specific region for study is primarily based on its strategic geographical location, which facilitated an extensive archaeological history spanning the Prehistoric, Proto-historic, and Historic periods. This area's accessibility from the north, northwest, west, and south via both sea and land routes has historically acted as a gateway for cultural interactions and influences, especially evident through commercial activities in key Early Historic excavation sites like Vadnagar, Devnimori, and Shamlaji within North Gujarat.



Map 2.2: Map showing districts of North Gujarat

Overall, Gujarat's geographical diversity, including its marshy regions, fertile plains, and hilly terrains, has played a significant role in shaping its cultural and historical landscape. The state's strategic location along trade routes has attracted various civilizations, leaving lasting imprints on its culture. From the early Mauryan period to the Maratha rule, Gujarat's history is marked by a succession of dynasties and empires. This rich heritage, combined with its diverse flora and fauna, continues to make Gujarat a region of historical and cultural significance in India.