

# The Rann of Cutch: Its History and Evolution

## 1. The Rann in Ancient Times

In the ancient accounts and maps the Rann of Cutch appears as an arm of the sea. In the *Periplus* of 1st Century A. D., it is described as a shallow gulf, called *Eirinon*, with its parts called separately the small gulf and the great. It is stated to be enclosed by a promontory called *Baraca* and contain seven islands. (77, 1912, p. 38). Ptolemy in 150 A.D. shows it in his map as an arm of the sea, with an island named *Barake* close to the north coast of *Kathiawar*.

In the writings of Arab Geographers the Cutch has been mentioned as an island. *Al-Biruni* says "The men of *Kambaya* bring tribute from the chiefs of the island of *Kis*" (103, p. 67). Later on, *Al-Idrisi* describing *Kambaya* says, "It is placed at the extremity of a bay, where vessels can enter and cast anchor. It is well-supplied with water, and there is a fine fortress erected by the Government of India to prevent the inroads of the inhabitants of the island of *Kish*" (103, p. 84). From this not only the insular position of the Cutch is evident but it also suggests a direct sea connection between Cutch and *Cambay*.

"*Reclus* (*Asia*, III, 142-5) says the Rann was probably open sea until about the 4th century, when a series of violent earthquakes elevated this whole region considerably. He reports ruins at *Nagar Parkar*, at the north east corner, indicating a large sea-port there. Those changes could have been a cause of the great migration from this region to *Java* in the 6th and the 7th centuries A. D." (77, p. 166). *Schoff*, quoting the same authority in another place states, "According to *Reclus* (*Asia*, III, 165) both Cutch and *Kathiawar*

(Baraca and Syrastrone) were originally islands. This whole area has been raised in historical times. The land connecting Kathiawar with the mainland is not over 50 feet above sea-level and is full of marine remains (77, p. 175). According to Barile Frere the Rann is connected on the east.....without any perceptible rise in the level, with a narrow strip of similar formation which fringes the Gulf of Cambay, down to a point nearly another 150 miles distant from what is commonly marked in the maps as the eastern boundary of the Rann" (23, p. 184). According to Wadia a broad arm of the sea connected the Gulf of Cambay with the Rann of Kutch—an inland sea in early Pleistocene times (94, pp. 227-8). At another place Wadia says "Even within historic times, the Rann of Cutch was a gulf of the sea, with surrounding coast towns, a few recognisable relics of which yet exist. The gulf was silted up gradually, a process aided, no doubt, by a slow elevation of its floor". (94, p. 33).

According to Sivewright "For many hundreds of years after the Arab conquest of Sind the sea was still navigable, though doubtless shallower than in Alexander's time". (78, p. 530). Burnes learnt from the natives of Cutch that but a few generations before their time certain towns (named on the map) Niruna, Bhitaro, Vingur, Baliari and Khod—were sea-ports; also that vessels had been known to be wrecked on Pachham, and that they ran for shelter in heavy weather to the island of Karir". A native craft, corresponding in design to ships known to have been built by the Arabs at a port in the Persian Gulf named Omana, some two thousand years ago was found embedded 15 feet in the soil near Wawunya (78, p. 525).

Bartle Frere has described tradition of the commercial community of Verawow, a small town in Nagar-Parkar, which was formerly called Pallee Nuggar (Pari-Nagar) or the ancient city. It states that the ancestors of these people had formerly settled at Barkasir further north east as a trading community and later migrated and settled at Pallee Nuggar more than 800 years back when sea-going ships reached that place with ease. Because of gradual shallowing of the sea, portion of their community shifted to Mandavee 300 or 400 years ago, and now for several generations no ships have approached their ancient port (23, pp. 194, 195). This provides an evidence for the progressive shoaling of the water in the Rann.

During the discussion on the paper of Sivewright Holdich commented that the stories of the changes that have taken place in the Rann, belong to ancient history, as the drying up of the Rann of Cutch is alluded in the Mahabharata (78, p. 535). Although Al-Biruni calls Cutch an island, yet in his lifetime Mahmud of Ghazni crosses the Rann with his army on his way to Somnath. In 1361 A.D. Sultan Firoz Shah, led an expedition into Guzerat across the Rann. The Arab historian accompanying him on the expedition describes the marsh as extending from the ocean between the Provinces of Sind and Guzerat, in length 90 Kuroh (157 miles), and breadth 8 to 30 Kuroh (14 to 52 miles). It is "such a howling desert", he adds, "that no bird ever flapped its wings over it, not a tree was to be seen, not a blade of grass, not even a miserable noxious weed" (78, p. 531). Now this 600-year old description is literally applicable to the present conditions of the Rann, and we are left guessing about the navigability of the Rann during this time and later on.

## 2. Origin and evolution of the Rann.

The rectilinear form of the Rann itself is suggestive of a tectonic origin. The western edge of Indian Peninsula according to Pascoe marks "some Plane close to which the foundering portion is thought to have broken off from what remains (68, p. 6). This dislocation extends northwards between Kathiawar and the mainland. North of the Tapti R., the western Ghats "consists of horizontal or nearly horizontal sheets of basalt and similar rocks, cut into a steep scarp on the western side by faulting and denudation". (68, p. 10).

The eastern shore of the Rann is straight and is in line with the coast south of Cambay upto Daman. Presence of Hot Springs close to eastern shore is suggestive of faulting (78, p. 519). The northern as well as the southern shores are also fairly straight, and the whole area of the Rann and the Gulf of Cutch is a rectangular flat above which rise the Cutch and four smaller islands of Pachbam, Kharir, Bela and Ghorar. Nagar Parkar may have been another island to the North which is now joined to the mainland. This area along with the Indus delta lies between two major fold axes, running more or less north south. On the east we have the axis of the

ancient Aravalis and to the west the Bela Axis which passes southward under the sea and gradually veers to the west. Between these two major fold axes we have the discordant structural elements of Cutch, striking almost east west. This discordant trend is not limited only to Cutch but extends further north under the Indus Delta and reaches almost up to Karachi.

Greater part of Cutch is occupied by Jurassic rocks, which according to Wadia were laid down in the basins, resulting from trough-faulting, sinking concurrently with deposition admitted thousands of feet of coastal detritus. Structurally these rocks form three broad anticlinal folds separated by synclinal depressions. A strike fault runs at the feet of the southern fold (94, pp. 186, 187). These Jurassic rocks are overlain by Trap followed by Eocene and upper Tertiary rocks.

The outline of the Rann appears to conform with the old structural framework or may be the result of new block faulting, but its configuration is certainly the result of more recent geological processes. The Cutch area, all Lower Sind and the entire coastal area to the west is very much disturbed. The whole appears to be still in a state of compression as indicated by negative gravity anomalies. Not only isostatic adjustments are going on but actual warping and folding appears to be still going on in the outer zone of the folded belts. Frequent earthquakes have been recorded throughout the historical period.

On the other hand, sedimentation has been going on steadily. Smaller streams have been contributing from north east-east and south gradually raising the floor of the basin. But the major contribution previously had been the eastern branch of the Indus through the bed of Eastern Nara, or Hakra or Wahinda, which had also been receiving the waters of the Sutlej. But after its diversion and drying up of other streams further east, Hakra was left a dry channel, though it occasionally received some water due to overflow of the Indus upstream of Rohri. Downstream it was receiving enough water through bed of Paran which continued till quite recently.

Then with the extension of the Indus Delta, which probably did not extend much beyond Pir Patho in the Arab Period and not

far beyond Mughulbin during the reign of Akbar, the sea itself became the most important agent in transforming the area. With the growing Delta and its advancing submerged slope the sea before the Rann became shallower and waves, tides and currents became more active in driving the sediments into the embayment and spreading them evenly over the bottom of the sea. Holdich pointed out "three large forces of changes. First, the wind and current action of the sea, which is most apparent during the south-west monsoon, then the silting action of rivers, and finally there are the periodic and intermittent results of earthquakes" (78, p. 535).

CUTCH or KACHCHH meaning 'new', 'crude', newly formed or alluvial is considered by Raverty (71, p. 501) originally consisting of a few rocky heights, which have been combined by gradual deposition of silt brought by Hakra and to some extent by Loni River, and Rann or vast marshy tract has been gradually increasing by these deposits. In Periplus we actually find the mention of seven islands in the Rann. These islands could be the Cutch proper, Wagir which is now joined with the first by a narrow strip of lowland, Pachham, Kharir, Ghorar and probably Nagar Parkar. Sivewright thinks apart from the river silt, wind blown material is also rapidly accumulating in the Rann (78, p. 534). Holdich thinks there can be no doubt that the Rann is *deltic* (78, p. 535). Bartle Frere puts much emphasis on earthquakes for the development of present conditions of the surface (23, p. 106).

### 3. The Rann in the Maps of 17th century

After the Greek and Arab periods it is difficult to point out the correct position about the Rann area. Even in 11th century though Cutch is mentioned as island, yet large armies are seen crossing the Rann. In 14th century again it is crossed by an army and the description of area is not different from the present one. In many maps of the 17th century, Cutch is not shown separately from Sind. It is combined with the area of south-eastern Sind including Nagar Parkar and is named as 'Soret'. The Rann of Cutch has not been shown at all, or in some maps a narrow channel or a river course has been shown separating Cutch from the northern part. Even in the map of Major James Rennell published in 1788, Rann

of Cutch is not shown. Land has been shown continuous northwards, though the Gulf of Cutch is shown separating it from Gujrat. In the map of Pottinger accompanying his book published in 1816, a marshy area has been shown extending north of Lakhpat and he states that it extends to within 4 miles of Mohammad Khan ka Tanda (63, p. 375). No such marshy area is shown to the east. Nor any hindrance or difficulty appears to have been faced by Kalhora rulers in leading their armies against Cutch across this area.

Renaulds prepared the maps of this area on a fairly larger scale (18 inches to a degree) during 1780 but they were not published. Burnes surveyed the area of Cutch and Rann during the years 1825-8, several years after the 1819 earthquake. After this the whole area was surveyed by the Survey of India during the years 1880-84.

#### 4. The Rann during modern times

According to Sir Bartle Frere "The Rann is usually marked on our best and most recent maps as a "salt plain", which gives a much better idea of the character of its surface than some of the terms applied to it in modern maps, such as "morass", "salt-marsh", or "swamp", or "arm of the sea". But it is a salt plain of a very peculiar character, and only for part of the year. The surface is apparently, for all practical purposes, dead level. Towards the centre of the Rann there is a slight rise, not exceeding a foot or two above the level of the margins of the Plain. This rise is of course quite imperceptible to the naked eye—it is only apparent to the Surveyor's level, to the traveller who in crossing the Rann when overflowed with water, finds a sensible difference in the depth of water through which his camel wades" (23, p. 184).

"The general surface is hard and polished. It consists of fine sand and clay, with sufficient salt in it to attract any moisture which the air may possess, and to keep the surface damp when all around is arid. Hence, though sometimes covered with a saline efflorescence the surface itself never pulverises even in the hottest weather, and is usually so hard that a horse's hoof hardly dents it in passing. But during the hottest weather the 'Rann' is generally

under water. When the S.W. Monsoon winds begin to blow steadily in May they bank up the waters of the ocean off the coast of Cutch, so as to occasion a considerable rise of the sea level in the Gulf of Cutch, and in the Lakhpat estuary, both of which terminate by a gradual shallowing of the shore, where it joins the eastern and western extremities of the Runn. The whole surface of the Runn is so little raised above the ordinary sea-level, that when this occurs, the first high tide causes the sea to overflow the Runn, across which the waters are blown by the steady S. W. breezes, till the whole is some feet deep under water, the depth of which is generally augmented, about the same time, by the contributions of rain-water, brought down by the Loonee, and a few other smaller streams which discharge into the Runn. This does not interrupt the transit of those who have occasion to cross the Runn" (23, p. 185). Water is from one to three feet deep, and generally deeper at the edges of the Runn.

"It is obvious that the Runn, entirely destitute of any supply of drinkable fresh water, and alternating in condition at different seasons between a hard, perfectly level, uniform dry plain and a shallow inland sea filled to depth of a foot or two with raised sea and rain water, is ill fitted for the support of any form of animal or vegetable life, and it usually appears absolutely destitute of both" (23, p. 188).

##### 5. Changes brought about by the Earthquakes

A great earthquake occurred in this area on 16th June 1819. It was followed by more earthquakes in 1844, 1845 and 1864 (105, p. 76). The great earthquake of 1819 brought about some drastic and profound changes in the Rann of Cutch area and also in the region of the Indus Delta. Though there is some possibility that some of the changes ascribed to this convulsion may have been the cumulative effect of all these shocks. The contemporary evidence was collected by McMurdo from the local people (107, 1822). Later Sir A. Burnes collected all information about this earthquake and surveyed the whole area during the years 1825-28 (6, 1828; 7, 1835; 8, 1834). These and all other records relating to the matter were

examined and analysed by R.D. Oldham and results published as a *Memoir of G.S.I.* in 1926 (52, 1926).

The first effect was that a large area around Sindri fort on the left bank of the Puran was depressed and immediately flooded by the sea (49, p. 28). The estimates of the area submerged vary from 200 square miles given by Oldham to 2000 square miles given by Burnes (52, p. 25). The statements of McMurdo and Burnes to the effect that boats started plying between Rubema Bazar and Kanjee Kacote on the Sind side and Nara on the Cutch side (52, p. 15), supports the view of Burnes. It is possible that area submerged immediately was much greater, though much of it was later raised due to isostatic recovery. Two smaller areas one on the north and the other on the west of Pachham Island were also permanently flooded. Another area of submergence and flooding is located near the mouth of Luni R. east of Nagar Parkar. From the northern outline of the eastern part of the Rann, lying to the east of a line running from Pachham Island in a east-north easterly direction, he concludes that whole of this area has been depressed (52, p. 36). On a map prepared by G.B. Greenough and published in 1855 from London, an area of 800 sq. miles of the north east Rann has been shown under a few inches of water. On the same map the Koriee or the eastern mouth of the Indus has been stated to have become many feet deeper due to this earthquake. Carless in his report on the Indus Delta points out that the strata in the banks of the Kori Creek are much disturbed and everywhere inclined at an angle more than  $30^{\circ}$  (13).

The second effect of the earthquake was that the area north of the Sindri Lake was raised to form a barrier across the river bed which was named by the people as Allah Bund. Oldham after examining the whole record and the survey plan and report of Captain Baker prepared in 1844, came to the conclusion that the area north of the lake, was raised by 20 ft. above the water level and the area to the south of the scarp or the bottom of the lake was lowered by 10 feet below the water surface. Thus the total relative movement was of 30 feet (52, p. 25). Allah Bund was a broad feature and according to Burnes gradually sloped northwards

imperceptible upto Ranmaka Bazar, perhaps a distance of 16 miles (82, p. 46). But the careful levelling by Baker in 1844, showed that four miles to the north the level reaches the lowest point at one foot higher than the level of water in the lake and then slopes up northward (52, p. 20). The lateral extent of the bund in his later report was given as 50 miles (49, p. 30). But in his later report Oldham stated "eighty miles, therefore, is a minimum estimate of the length of this dislocation it may well have extended to one hundred and even more, if that part is included where the displacements under-ground were too small to produce any appreciable effect at the surface". (52, p. 37). Oldham also concludes that apart from Allah Bund, the whole area north of Allah Bund and Pachham Island presenting an arcuate edge to the south, was also raised sufficiently to change from the condition of Rann to that of bet or dhoi. This change occurred slowly and gradually. Later earthquakes appear to have accentuated the effects of the first one. Sir G. Le-Grand Jacob on the authority of the native information states that the Allah Bund was enlarged and the level of the Rann raised, by the earthquakes of 1845 (32, p. 65).

Apart from the sudden changes accompanied by the earthquakes, a very slow process of warping appears to be going on in the northern Rann. It is evident from the discussion of Oldham and the earlier writings. Frere writing in 1870 states, "Towards the centre of the Rann there is a slight rise, not exceeding a foot or two above the level of the margins of the plain. This rise is of course quite imperceptible to the naked eye—it is only apparent to the Surveyor's level, or to the traveller who, in crossing the Rann when covered with water, finds a sensible difference in the depth of water through which his camel wades". He further says, "Not only is there no visible change in the level, but there is a total absence of any sign of animal or vegetable life which could break the uniformity of the surface. There are no trees, no tufts of grass,....." He further adds, "The whole surface of the Rann is so little raised above the ordinary sea level, that when this occurs, the first high tide causes the sea to overflow the Rann..... This does not interrupt the transit of those who have———occasion to cross the Rann.....Parties of travellers wade steadily through

miles of water from one to three feet deep, and generally deeper at the edges of the Runn" (23, p. 185). Writing in 1870, his conclusions are based on earlier observations, and previous writings of which exact dates are not certain. In the Gazetteer of 1908 we find the statement, "Owing to the effects of an earthquake in 1819 the Greater Rann is considerably higher in the centre than along the edges; while the Centre, therefore, is dry, there are frequently water and mud at its sides" (105, p. 85). The change that has occurred during this interval is quite evident from these two statements but the cause of it as we shall presently see is not the 1819 earthquake alone.

Oldham has examined in details the changes that occurred in the area of the Rann, lying between Pachham and the southern edge of the Thur. Comparing the maps of Burnes (1825-28) and the Survey of India map (1880) he finds a great change in this area. While the Burnes map shows only 4 islands between Pachham and Baliari, the prevailing nature of the whole area is that of Rann. But on 1880-84 Survey maps large tracts are occupied by sandy grass covered lands known as bhēt or dhoi. Rann is only in strips and patches subordinate to bhēt land. In 1852 in between the two periods, the careful itinerary of Sir G. Le-Grand Jacob, along the track between Pachham and Rahim ki Bazar, shows 24 miles of bhēt in 1880 Survey more than half is bhēt (52, p. 27). Even upto the time of Wynne's survey in 1869 there was uninterrupted stretch of Rann with a few islands of bhēt (52, p. 12). In 1907, Sivewright finds the flooding of the Rann by the sea impossible and conversion of Cutch into an island during the Southwest monsoon, to him, is a popular delusion with regard to the Province (78, p. 527). Oldham in a note on page 36 of his report states that some heights marked on the survey of India map suggest the general level of the Runn to the west of Pachham may be some 40 feet above sea level, certainly not less than thirty feet. From all this it is quite obvious that a definite change has been taking place since the beginning of the last century or even from earlier times. The direction of the changes is also clear. The sequence of change does not correspond either with 1819 earthquake or the later ones and they cannot wholly explain it. Earthquakes are only short and intermittent episodes in

a constant and continuous slow process, which is quite perceptible in this area. Suess originally held the view that Allah Bund was the manifestation of a deep seated fold at the surface. Though he abandoned it later in favour of Wynne's view, Oldham does not agree with Wynne (49, pp. 27-28).

The fault scarp known as Allah Bund is more or less in line with the northern cliffs of Pachham, Karir and Bela islands in the Rann and that of Chorar now forming part of Palampur. The oldest Jurassic rocks are exposed at the base of these cliffs while youngest beds follow southwards. They seem to be part of a broken anticline and Allah Bund appears to be the continuation of the same fold flanked on south by the continuation of the same fault with down-throw on the opposite side, or it may be another faulted anticline with the same trend running under the Indus Delta. All other folds in N. Kathiawar and Cutch have the same trend and the major fault in Cutch also runs nearly east-west. Spate also considers the Rann as a broken anticline (80, p. 598). On a recent Oil & Gas Map of Asia and the Far East, published by United Nations in 1962, two gas shows have been marked, one a little north of Pachham and the other west of Sir Creek near 24th Parallel. The first one lies fairly close to the line of disturbance marked by Allah Bund and on top of the rising ground,

All this supports the view that "Allah Bund is the surface manifestation of a deep seated anticline". And that the area is at present in a state of compression and warping along this line is progressing, thereby raising the middle part of the Rann in relation to its northern and southern margins. Further support is found in the Little Rann. "The Little Rann is at present undergoing a marked change. Year by year the sea is spreading further eastward; and along the coast, places which a few years ago were inaccessible to boats are now open to water traffic". (105, p. 85). This change reported in the Imperial Gazetteer is just the opposite of what is happening in the Northern Rann. The Little Rann is situated between the anticlinal fold running east-west in north-east Kathiawar and the southern most anticline in Cutch, and is itself synclinal flanked on south probably by a fault, running along the north-coast

of Kathiawar. The slow process of folding is raising the middle part of the Great Rann along the crest of a faulted anticline and lowering the Little Rann stretching along a syncline.

#### 6. Historical and Political Aspects

In 1763 Mian Ghulam Shah Kalhora marched towards Kachh. "He took the fort of Sindri on his way, and on the heights of Jarah mountain killed about 6000 men of the 'Kachhis'. Continuing his victorious march he came to within 12 Koss of Bhuj, plundering the villages and towns in the vicinity of that city. He took the sea-ports of Basta and Lakhpat".

"In 1178 A. H. (1765 A.D.) Mian Ghulam Shah again invaded Kachh and took fortified town of Moru on his way. Coming to within 10 miles of Kachh, he made a halt. The Rao of Kachh again applied for peace and fresh treaty was concluded" (33, p. 161). "In this year (1770 A.D.) the Rao of Kutch gave the hand of a daughter of his cousin Wesujri in marriage to the Mian and the marriage was celebrated with great pomp and splendour on both the sides. In consideration of this relationship, the towns of Basta Bandar and Lakhpat Bandar and others that had been conquered by the Mian, were returned to the Rao". (33, p. 163). This account is given in the History of Sind, Vol. II, by Mirza Kaseeb Beg. Further we are told "about the close of Shuaban, 1188 (1774), the Mian (Mohammad Sarfaraz Khan) set out for Kachh. On the way he took the fort of Bajham (Pachham). The Rao of Kutch received the Mian with distinction and was consequently left in undisputed possession of his country". (33, p. 164).

From these campaigns it appears that Sindri on the left bank of the Puran and Bajham (Pachham Island) were the northern most outposts of the Rao of Kachh at that time, and Basta Bandar on the north of Khori Creek also belonged to Kachh.

Later in 1809 Nicholas Hankey Smith led a Mission to Sind, Lt. Pottinger accompanied this Mission. They reached Hyderabad via Karachi and returned by Fullelee and Goonee to Lakhpat. Pottinger disembarked at Ally Bander and went to Kuddan where he stayed for a few days and travelled directly to Lakhpat. He

made exhaustive enquiries about the area through which he passed apart from his own observations. His party including Maxfield who prepared a map of Sind, took another boat and sailed down the Looni upto Lakhpat. Pottinger in his map published with travel account has shown the boundary between Kachh and Sind at this time. Kori Creek or Looni, at this time, forms the boundary between the two countries up to the point where it turns north. From this point the boundary runs eastward remaining a little (about 10 minutes) to the south of 24th Parallel. Even Sindri which is shown on the right bank of Looni and is named Sindra is shown on the Sind side. There is no territory possessed by Cutch on the north of Looni at this time. As the whole party actually passed through this area there could be no error on the jurisdiction of the two countries, in the vicinity of Lakhpat and the Looni River, and there appears to be no boundary dispute between Sind and Cutch at this time, neither from map nor from the narrative of the journey. Even at the time of Survey carried out by Carless in 1837 the boundary ran along the Kori Creek and the Kotri Bandar on the right bank of Kori served as port for Lower Sind (13).

During this period there was no boundary dispute between Sind and Cutch, but a struggle was ensuing between Sind and the British Government for the domination of Cutch as a whole. This is confirmed by Sivewright in his paper on Cutch and the Rann. In this paper he says "Intervention in the internal affairs of an independent state was contrary in the policy of the Company, and, had it not been for McMurdo, would probably never have been sanctioned; but he, on the spot, discovered the imminent danger of an armed occupation of the Province by the warlike Amirs of Sind. McMurdo's anxiety lest he should be anticipated by them must have been very great. He was in time, but for months the question hung in the balance whether Cutch should be a state tributary to the British or to the Amirs". (78, p. 524).

In 1809 Cutch came within the sphere of British influence with McMurdo as first Political Agent at Mandavi. He concluded two more treaties in 1816 and 1819, with 'the de facto ruler'—the Rao himself being, lunatic and in confinement. Now the Forward policy

of the British started operating. "When Burnes was sent to Cutch in 1825, a life and death struggle with the Amirs was known to be inevitable at no distant date. It was necessary to secure the passage of the Indus as an alternative line of communication with the North West Frontier, and Cutch proved a strategic base for military operations in lower Sind—at least, so it was considered at the time of Burnes arrival". (78, p. 524).

During the early years of nineteenth century the British Government was obsessed with Napoleons's threat to invade India. Under this fear they were probing into the still unoccupied lands to extend their defences. Topographical surveys were carried out in Sind and other areas on different pretexts. *Historical Records, Survey of Indus, Vol. II, by Phillimore, published in 1950 from Dehradun*, gives the motives of these surveys in the following words, "The same fear of Napoleon's threat to invade India that led to the missions to Kabul and Lahore, led also to missions to Sind and Persia, and to a Survey of the borders of Gujrat".

"The mission to Sind was led by Nicholas Hankey Smith, and after a succession of tedious and trying negotiations" a treaty was concluded on 22nd August, 1809.

"The Surveyors who accompanied this mission were William Maxfield of the Bombay Marine, and Charles Christie, commanding the escort. The mission embarked at Bombay on April 27th and reached Karachi on May 9th. Disembarking on the 18th, they were detained till the 10th of June before they were allowed to proceed by river to Tatta, and thence by road to Hyderabad. They returned by land, entering Cutch at Luckpat Bunder and terminating at Mandavee". Maxfield's map "was made on the stereographic projection on a very large scale to delineate that part of the River I had an opportunity of examining.....The positions of the principal places are determined by celestial observations, and every precaution has been taken to render the map accurate. A detailed account of the Road Passes, Defiles, Fortifications, and faces of the country accompanies the map, in which I have endeavoured to embrace every object which can render it useful in a military point of view....." (67, p. 168).

In May 1809, whilst these surveys were going on, an attempt was made by James McMurdo to survey a line through the desert to Hyderabad, Malcolm writing from Bombay;

"It was my intention to have requested this Government to have allowed Lt. McMurdo, the C. O. of the Resident's Guard at Baroda, ..... to have proceeded to Hyderabad by the way of Omercote, *under the pretext of carrying dispatches to Mr. Smith*, and to have requested that gentleman to obtain leave for Mr. McMurdo—to proceed by Karachi to Guadel, from whence he could have gone on to Muskat, or returned to Bombay, or have continued his journey through Mekran and Balooche to Persia as circumstances suited". (67, p. 169).

These quotations from Sivewright and Phillimore show clearly the British policy towards Sind and attitude and motives of their officials towards this country.

As already stated the Rao of Cutch was lunatic and the country was completely in the hands of British Political Agent and became a strategic base for operations against Sind. Naturally, the British officials were biased against Sind and favourable towards Cutch. "All information regarding these areas reaches us through these people either in maps or descriptions". In 1825-28 Burnes surveyed the whole area of Cutch and Rann and for more than 50 years was considered the only reliable map of the area. His accounts provide material to majority of the later writers. His bias and attitude of favour towards Cutch has been admitted even by Oldham, who says "By Sir A. Burnes, following the view of the Cutch government, the ruin of the province was attributed to the malevolence of the rulers of Sind, and the formations of these dams to a spirit of revenge for the defeat of the Sind army, at the battle of Jharra in 1762" (52, p. 13). Oldham himself thinks that the Sind rulers were obliged to raise dams across the Puran on its gradual failure due to certain geographical causes not properly understood at that time. Also the contention of defeat of Sind Army at the battle of Jarra is wrong as even Imperial Gazetteers accept the invasions as successful though partially.

These Political Agents appear to have revived some old claims of Cutch against Sind territory to serve their own designs. "Ballari is mentioned by Sir A. Burnes as one of the places on the Sind Side of the Rann at which the Government of Cutch still maintained garrisons in 1819". (52, p. 42). In the "Face of the Earth" by Suess we find the statement that after the submergence of Sindri fort during 1819 earthquake, "A feeble and unsuccessful attempt was made by Cutch to establish a custom house on the newly raised dam of Allah-Bund, but to this the Ameers of Sind objected, and Sindri being no longer tenable, the officers were withdrawn to the mainland of Cutch". (82, pp. 45-46). Oldham has quoted statement of Burnes himself that, shortly after the earthquake, the guns of Sindri were removed by boat and landed within two miles of Nara (52, p. 31). It is clear that at the time of earthquake and afterwards Cutch had no control even over the area of the Rann, nothing to say of the places on the Sind side of the Rann. Ten years earlier even Sindri was not in possession of Cutch. It may have been occupied during this period with the encouragement of the British, and to serve their designs against Sind.

So far as the bhet lands between Pachham and the Thur edge in the north-western Rann are concerned, they were non-existent at the time of the earthquake and also before it. According to Wadia as a result of the 1819 earthquake some 2000 sq. miles of area was suddenly depressed and became an inland sea, drowning the fort of Sindri and about 600 square miles of area was simultaneously elevated. (94, p. 33). We have already discussed that this area was not raised simultaneously excepting the Allah Bund and have traced its gradual elevation and conversion into bhet lands. As late as 1869 at the time of Wynne's Survey it was uninterrupted Rann area with a few islands. The Rann, being entirely destitute of any supply of drinkable fresh water, alternating between hard dry plain and a shallow inland sea during the year, absolutely destitute of all life, animal or vegetable, was totally unfit for human occupation. The 1880 Survey for the first time revealed a large tract of raised land with vegetation, grass as well as trees. It was only now that the question of showing this tract on map in Sind or Cutch could arise.

## 7. Limits of Cutch as defined in Gazetteers

With this background in mind we may examine the boundaries of Cutch as defined in the Gazetteers. In the Imperial Gazetteer, Vol. XI, New Ed., 1908 we find, "Cutch (Kachchh, or the sea-coast land)".

".....Its limits, *exclusive of a portion of the great salt marsh termed the Rann* extend from 22°47' to 24°N and from 68°25' to 71°11' E, comprising a belt of land 160 miles from east to west and about 35 to 70 miles from north to south. The area of State (exclusive of the Rann) is 7,616 square miles and it contains 8 towns and 937 villages". (105, p. 75). On the basis of this, whole of the Great Rann is claimed by the State. The major part of the Great Rann lies to the north of 24°N, only some projections and pockets remain to the south of it. The total area of the whole Rann is given 9000 sq. miles, more than the total area of the State itself. Now "a portion" of the great salt marsh could not mean to cover the entire Rann area outside the defined limits.

Again in the same Gazetteer it is said, "*The whole territory of Cutch is almost entirely cut off from the continent of India—north by the Great Rann, east by the Little Rann, south by the Gulf of Cutch, and west by the Arabian Sea.....*" (105, p. 75). Now if whole Great Rann is part of Cutch and its boundary runs, where Indian maps show it then how Cutch state is entirely cut off from the continent on the north. Moreover the bet-land between Pachham and the mainland is continuous with the Sind mainland and is cut off from Cutch by the Rann and on this basis forms part of Sind. What remains to the south of the Great Rann forms "The Whole Territory of Cutch". (Map with 93).

Again in the article on the "Rann of Cutch" it gives its area "about 9000 square miles and stretching along the north and east of the State of Cutch which it separates from Sind on the north"..... (105, p. 84). With the use of the word State here it is confirmed that the jurisdiction of the Cutch State terminates with the shores of Cutch mainland and does not extend over the Rann. At the most "a portion of the Rann beyond 24th Parallel could have meant

a small pocket round the Sindri fort though this too became submerged after the earthquake. Moreover this expression "exclusive of a portion of the great salt marsh termed the Rann" would also have meant for the part of the Little Rann beyond the eastern limit defined by  $71^{\circ}11'E$ , which was later divided between the adjoining States perhaps on this very basis. Here "the great salt marsh" has been used for the entire Rann, and not for the Great Rann only.

#### 8. Boundary in the maps in the early Census Reports

The maps in the Census Reports of 1911, 1921 and 1931 are ambiguous. In the maps of Natural Divisions, the Rann of Cutch is shown as part of W. India States Agency, but in separate maps of that division the boundary of the Cutch state runs along the coast of mainland of Cutch.

In the large scale map (1" to 24 miles) of the whole Presidency in 1931 Census report, the boundaries of Sind and the Cutch State run along their shores and the area of the Rann and the tract between Kori and Sir Creeks have been left outside both the territories as no man's land. In this map the map makers, in their zeal to extend the territory of Cutch beyond the 24th Parallel, have enclosed 2 depressions, one on the north and the other on the west of Pachham Island, with dash and dot line to show them as islands. The first of them is the only area, though imaginary, to the north of 24th Parallel shown in this map as part of Cutch.

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