

RANN OF KUTCH IS GREAT RANN AND LITTLE RANN: THE LARGE AREA OF SALT MARSH IN GUJARAT

¹*Dr. Viral A. Prajapati, ¹Chandni Jaimin Panchal, ²Dr. Dhrubo Jyoti Sen and ³Dr. Pruthviraj K. Chaudhary

¹Shree Swaminarayan Sanskar Pharmacy College, Near Zundal Circle, S. P. Ring Road, Between Chandkheda-Adalaj, Zundal, Gandhinagar-382421, Gujarat, India.

²School of Pharmacy, Techno India University, Salt Lake City, Sector-V, EM: 4/1, Kolkata-700091, West Bengal, India.

³Shri Sarvajani Pharmacy College, Gujarat Technological University, Arvind Baug, Mehasana-384001, Gujarat, India.



*Corresponding Author: Dr. Viral A. Prajapati

Shree Swaminarayan Sanskar Pharmacy College, Near Zundal Circle, S. P. Ring Road, Between Chandkheda-Adalaj, Zundal, Gandhinagar-382421, Gujarat, India.

Article Received on 08/03/2025

Article Revised on 28/03/2025

Article Accepted on 18/04/2025

ABSTRACT

The Rann of Kutch is a large area of salt marshes that span the border between India and Pakistan. It is located mostly in the Kutch district of the Indian state of Gujarat, with a minor portion extending into the Sindh province of Pakistan. It is divided into the Great Rann and Little Rann. It used to be a part of the Arabian Sea, but it then dried up, leaving behind the salt, which formed the Rann of Kutch. The Luni flowed into the Rann of Kutch, but when the Rann dried up, the Luni was left behind, which explains why the Luni does not flow into the Arabian Sea today. In English, luni- is a combining form meaning "moon". It's used to create compound words related to the moon. For example, "lunitidal" combines "luni-" (moon) with "tidal" (relating to tides).

KEYWORDS: great ran, little ran, vast salt, halophytes, Gulf of Kutch.

OVERVIEW

The Rann of Kutch, located in Gujarat, India, is a vast and unique salt marsh ecosystem, often referred to as a salt desert. It is divided into the Great Rann and the Little Rann, both characterized by their flat, arid landscapes that transform into wetlands during the monsoon season. This region is known for its extreme environmental

conditions, including soil encrustations and saline marshes. A salt marsh is a coastal wetland dominated by salt-tolerant plants (halophytes) that are regularly flooded and drained by tides. These ecosystems are found in the intertidal zone, the area between high and low tide marks, and are characterized by a high degree of productivity and biodiversity.^[1]



Figure 1: Geography of Rann.

- **Salt Marshes:** The Rann of Kutch is a large area of salt marshes, the largest in the Indomalayan realm. A salt marsh is a coastal wetland dominated by salt-tolerant plants (halophytes) that are regularly flooded and drained by tides. These ecosystems are found in the intertidal zone, the area between high and low tide marks, and are characterized by a high degree of productivity and biodiversity.
- **Two Main Parts:** It is divided into the Great Rann and the Little Rann, with the latter extending southwards to the Gulf of Kutch.
- **Seasonal Flooding:** The Rann is typically submerged during the monsoon season and transforms into a vast wetland.
- **Unique Ecosystem:** The Rann is a unique ecosystem due to its soil, saline marshes, and extreme environmental conditions.
- **Wildlife:** The Rann is home to various wildlife, including the Indian wild ass, chinkara, and migratory birds.
- **Salt Production:** The region is a significant source of salt production in India, with salt workers extracting salt during the dry season.
- **Cultural Significance:** The Rann is also culturally significant, being the homeland of the Kutchi people and known for its vibrant handicrafts.
- **Tourist Attraction:** The Rann of Kutch is a popular tourist destination, offering unique landscapes and cultural experiences.

- **Environmental Concerns:** The Rann faces environmental challenges such as climate change, pollution, and overgrazing, which impact the region's ecology and wildlife.^[2]

Ethereal beauty" refers to a type of beauty that is delicate, otherworldly, and often associated with a sense of lightness, grace, and transcendence. It's a quality that can be found in nature, art, and even in the way a person carries themselves. It often evokes feelings of wonder, awe, and a connection to something beyond the ordinary.

The Great Rann of Kutch is a salt marsh in the Thar Desert in the Kutch District of Gujarat, India. It is about 7500 km² (2900 sq miles) in area and is reputed to be one of the largest salt deserts in the world. This area has been inhabited by the Kutchi people. The Little Rann of Kutch is a salt marsh which is part of the Rann of Kutch in Kutch district, Gujarat, India.

The Gujarati word Rann and Sindhi word Rinn is derived from Sanskrit/Vedic word *iriṇa* (इरिण), meaning the salt flat or barren ground, attested in the Rigveda and Mahabharata. It is the southern extension of the Thar Desert. The Rann of Kachchh is famous for its white salty desert sand and is reputed to be the largest salt desert in the world. 'Rann' means desert in Hindi which in turn is derived from the Sanskrit word 'Irina' which also means desert.^[3]



Figure 2: Rann of Kutch and white salt desert.

The best time to visit the Rann of Kutch is during the winter months, specifically November to February, when the weather is mild and pleasant for sightseeing. This period also coincides with the Rann Utsav festival, offering a vibrant cultural experience with folk music, dance, and lights. The average temperature during this time ranges from 10-28 degrees Celsius (50-82°F), making it ideal for desert excursions and witnessing the beauty of the White Rann under the moonlight. Bhuj is a city in the Kutch district of Gujarat, India, with a rich history and vibrant culture. The Great Rann of Kutch: Of course, it comes at a price of Rs. 250 for two. The White Rann changes moods as per the time of the day. Go there in the morning and it is gently waking up, the afternoon makes it merciless, the sunset calms it down and the moon makes its beauty glow. While the Great Rann is a

vast expanse of salt, the Little Rann of Kutch is more broken up – there are sandy, salt-free areas (known as *bets*) that lie above the salt level,” says Bhujwala. “These areas are a refuge for wildlife. The Rann of Kutch is renowned for its vast, unique white salt desert landscape and the annual Rann Utsav festival. It's also famous for its diverse wildlife, including the Indian wild ass, and for traditional crafts like *bandhani* (tie-dye) and mud work.”^[4]

Here's a more detailed look at what makes the Rann of Kutch famous:

1. **White Salt Desert:** The Rann of Kutch is a vast expanse of salt flats, particularly the Great Rann, which is known for its otherworldly white landscape. This is especially striking during full moon nights and at sunset. The Great Rann of Kutch is a vast salt desert, one of the

largest in the world, formed by evaporating seawater. During the day, the white salt crystals create a

mesmerizing, snow-like appearance, and at night, the moonlight transforms it into a surreal landscape.



Figure 3: White desert and Rann Utsav.

2. Rann Utsav: This annual festival is a vibrant celebration of Kutch's culture, art, and crafts. It features traditional music, dance performances, local cuisine, and opportunities to experience the region's unique offerings. This annual festival, organized by the Gujarat government, is a vibrant celebration of Kutch's culture, art, crafts, and cuisine. It's a popular time to visit, with numerous tourists flocking to experience the unique offerings.

3. Wildlife: The Little Rann of Kutch is home to the Indian Wild Ass Sanctuary, which protects the endangered Asiatic wild ass (khur). The area also boasts other wildlife like nilgai, blackbuck, and various bird species.

4. Traditional Crafts: The Rann of Kutch is known for its rich artistic heritage, with crafts like bandhani (tie-dye), embroidery, Rogan art, and mud work.

5. Stargazing: The clear, dark skies of the Rann make it a fantastic spot for stargazing, especially during the full moon.

6. Unique Landscape: Beyond the salt flats, the Rann also includes Banni grasslands with seasonal marshy wetlands, adding to its ecological diversity.

7. Sunset and Sunrise Views: The Rann offers breathtaking views of the sun rising and setting over the white landscape, creating a magical atmosphere.

The Great Rann of Kutch, located in Gujarat, India, is a vast expanse of salt marsh renowned for its stunning white salt-encrusted landscape, often referred to as the White Desert. This unique geological feature transforms into a mesmerizing spectacle, particularly during the dry season when the salt flats are exposed and reflect the sunlight. The area is also known for the annual Rann Utsav, a cultural festival celebrating the region's art, music, and cuisine.^[5]



Figure 4: Rann Utsav [Male & Female].

Here's a more detailed look:

Geography: The Rann of Kutch is a seasonal salt marsh, meaning it's covered by water during the monsoon season and transforms into a salt flat during the summer.

Unique Landscape: The dry season reveals a vast, shimmering white landscape, making it a popular tourist destination.

Rann Utsav: This annual festival is held during the winter months and provides a vibrant cultural experience alongside the surreal white desert.

Kutch, Gujarat, is known for its diverse cultural heritage, unique handicrafts, and the expansive Great Rann of Kutch, a vast salt marsh.



Figure 5: Rann Utsav On White Desert.

The region is also famous for the Rann Utsav, a vibrant cultural festival, and its rich culinary traditions, including dishes like Dabeli [Dabeli, kutchi dabeli or double roti (Gujarati: દાબેલી, કચ્છી દાબેલી, Devanagari: दाबेली, कच्छी दाबेली), is a popular snack food of India, originating in the Mandvi, Kutch region. It is a spicy yet sweet snack made by mixing boiled potatoes with a special dabeli masala, putting the mixture in a ladi pav (similar to a burger bun), and serving it with chutneys made from tamarind, date, garlic, red chilies and other ingredients. It is garnished with pomegranate and roasted peanuts] and Odho [Odho is a Kachchhi (from Kutch, Gujarat) dish, similar to the popular "Baingan Bharta" (eggplant mash). It's a staple in a typical Kutchi meal, often served with bajre (millet) roti, kadhi, garlic chutney, and jaggery. The meal is traditionally finished with a chilled glass of "chhaas" (buttermilk)].

Natural Beauty and Wildlife: Little Rann of Kutch: A wildlife sanctuary and home to the Asiatic wild ass (Ghorkhur), along with other animals like nilgai, blackbuck, and various bird species.^[6]

Banni Grasslands: A vast expanse of grasslands, offering unique landscapes and wildlife viewing opportunities.

Kala Dungar (Black Hill): The highest point in Kutch, offering panoramic views of the Great Rann.

Mandvi Beach: A scenic coastal town with a historic beach and shipbuilding yards
biodiversity: The Rann is also home to various wildlife, including the Indian wild ass, flamingos, and other wetland and floral species.

Historical Significance: Some Indologists believe that the Rann of Kutch was once an archipelago and potentially a site for ports during the Indus Civilization.

The Rann of Kutch is celebrated for its stark, ethereal beauty, particularly the vast white salt desert. This unique landscape transforms from a dry, white expanse to a temporary sea during the monsoon, offering breathtaking views, especially under a full moon when the salt marshes mirror the moonlight. The region is also known for its vibrant biodiversity, including flamingo populations, and the rich cultural experience offered during the Rann Utsav festival.^[7]

Wild Life Sanctuary: The Rann of Kutch is known for its unique and diverse wildlife, including the endangered Indian Wild Ass and various bird species. The area also supports mammals like chinkara, nilgai, blackbuck, wolves, and striped hyenas. Reptiles like spiny-tailed lizards and saw-scaled vipers are also found there.

Indian Wild Ass: This is the most iconic mammal of the Rann, with the Little Rann of Kutch serving as its last refuge.

Chinkara: These Indian gazelles are commonly seen during safaris.

Nilgai (Blue Bull): Another common sight, these large antelopes are also found in the area.

Blackbuck: This antelope species is also present in the Rann.

Wolf: The Indian wolf is another predator found in the region.

Striped Hyena: These scavengers are also part of the Rann's ecosystem.

Desert Fox: Both common and desert foxes can be seen in the area.

Caracal: This wild cat is also found in the Rann.

Mammals:**Figure 6: Rann Wild Life Sanctuary.****Birds:**

The Rann is a haven for over 200 bird species, including many migratory ones.

Flamingos: Both greater and lesser flamingos are abundant, especially in the seasonal wetlands.

Demoiselle Cranes: These cranes migrate to the Rann during winter.

Houbara Bustard: This threatened species is also found in the Rann.

Sarus Crane: Another threatened species, the Sarus Crane, also resides in the Rann.

Great Indian Bustard: This critically endangered bird is also found in the Rann.

Other birds: Various other species like pelicans, storks, and eagles are also found.

Reptiles:

Spiny-tailed Lizard: This reptile is commonly found in the Rann.

Saw-scaled Viper: This venomous snake is also present in the area.

Monitor Lizards: These reptiles can also be spotted in the Rann.

Cultural Significance and Attractions

- **Great Rann of Kutch:** A unique salt desert, offering stunning views, especially during the full moon, and is home to the Rann Utsav, a popular festival.
- **Kutch Embroidery:** Known for intricate embroidery styles like Rabari, Ahir, and Sindhi, often incorporating mirror work and beadwork.
- **Rogan Art:** A unique textile art form with vibrant colors and intricate patterns.
- **Ajrakh Block Printing:** A traditional method of dyeing and printing textiles with intricate geometric patterns.
- **Dholavira:** One of the largest and most well-preserved Harappan sites, showcasing ancient urban planning and architecture.
- **Culinary Delights:**
 - **Dabeli:** A popular street food made with a spiced potato filling, served in a bun.
 - **Odho:** A traditional Kutch dish similar to Baingan Bharta, often enjoyed with Bajre ja rotla (millet flatbread).
 - **Bajra na Rotla:** A staple food made from pearl millet, often served with curd and buttermilk.
 - **Gulab Pak:** A royal sweet from Khavda, known for its unique flavor.

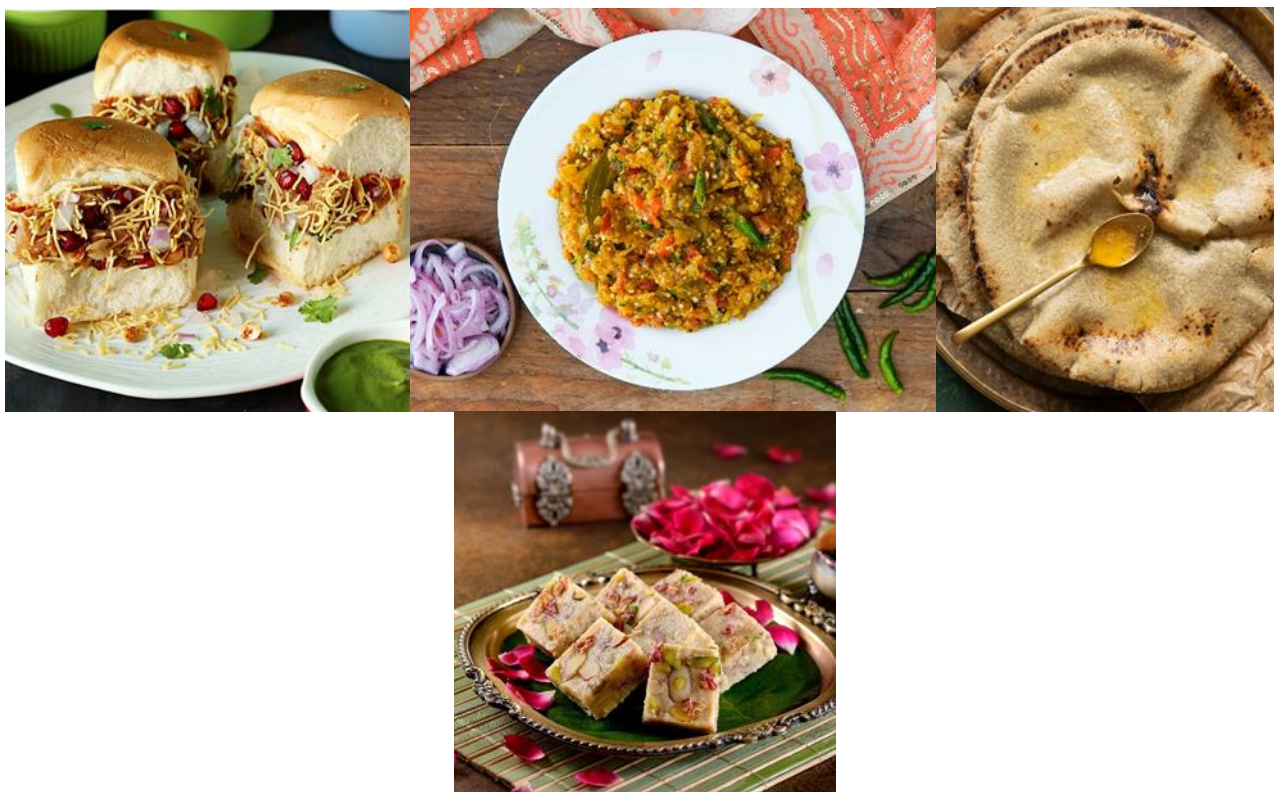


Figure 7: Kutch Culinary.

CONCLUSION

The Rann of Kachchh is famous for its white salty desert sand and is reputed to be the largest salt desert in the world. 'Rann' means desert in Hindi which in turn is derived from the Sanskrit word 'Irina' which also means desert. The Rann of Kutch is white due to the presence of vast salt flats. The region was once a part of the Arabian Sea, and geological changes led to it becoming a seasonal marshy salt desert. During the dry season, the water evaporates, leaving behind a bed of white, salty land. This white, salt-encrusted landscape is what gives the Rann of Kutch its distinctive appearance.

REFERENCE:

1. Simas, T; Nunes, J.P; Ferreira, J.G "Effects of global climate change on coastal salt marshes". *Ecological Modelling*, 2001; 139(1): 1–15.
2. Gedan, K. Bromberg; Silliman, B.R.; Bertness, M.D. "Centuries of Human-Driven Change in Salt Marsh Ecosystems". *Annual Review of Marine Science*, 2009; 1(1): 117–141.
3. Vernberg, F. John "Salt-marsh processes: A Review". *Environmental Toxicology and Chemistry*, 1993; 12(12): 2167–2195.
4. Bernhard, Anne E.; Sheffer, Roberta; Giblin, Anne E.; Marton, John M.; Roberts, Brian J. "Population Dynamics and Community Composition of Ammonia Oxidizers in Salt Marshes after the Deepwater Horizon Oil Spill". *Frontiers in Microbiology*, 2016; 7: 854.
5. Nie, Ming; Wang, Meng; Li, Bo "Effects of salt marsh invasion by *Spartina alterniflora* on sulfate-reducing bacteria in the Yangtze River estuary, China". *Ecological Engineering*, 2009; 35(12): 1804–1808.
6. Murray, Nicholas J.; Worthington, Thomas A.; Bunting, Pete; Duce, Stephanie; Hagger, Valerie; Lovelock, Catherine E.; Lucas, Richard; Saunders, Megan I.; Sheaves, Marcus; Spalding, Mark; Waltham, Nathan J.; Lyons, Mitchell B. "High-resolution mapping of losses and gains of Earth's tidal wetlands" (PDF). *Science*, 2022; 376(6594): 744–749.
7. Ginsburg, Robert N.; Lowenstam, Heinz A. "The Influence of Marine bottom Communities on the Depositional Environment of Sediments". *The Journal of Geology*, 1958; 66(3): 310–318.