

Gulf of Kutch Ecology

Gulf of Kutch

-Mangroves

The area under mangrove cover along the Gujarat Coast is the second largest, after Sunderbans along the Indian coast. Gulf of Kutch accounts to 93%-of Gujarat mangroves.

Coral Reefs:

Islands in the Marine National Park bordering the southern shore of the Gulf support coral and coral reefs. The age of these reefs varies from 5240 years at Salaya to 45,000 years at Okha.

•Marine Algae:

The Gulf has more than 210 Species of marine algae. These marine algae, in combination with the corals and Mangroves; provide a very healthy, useful and conductive ecosystem for the diverse flora and fauna existing in the Gulf.

•Creeks and Estuaries:

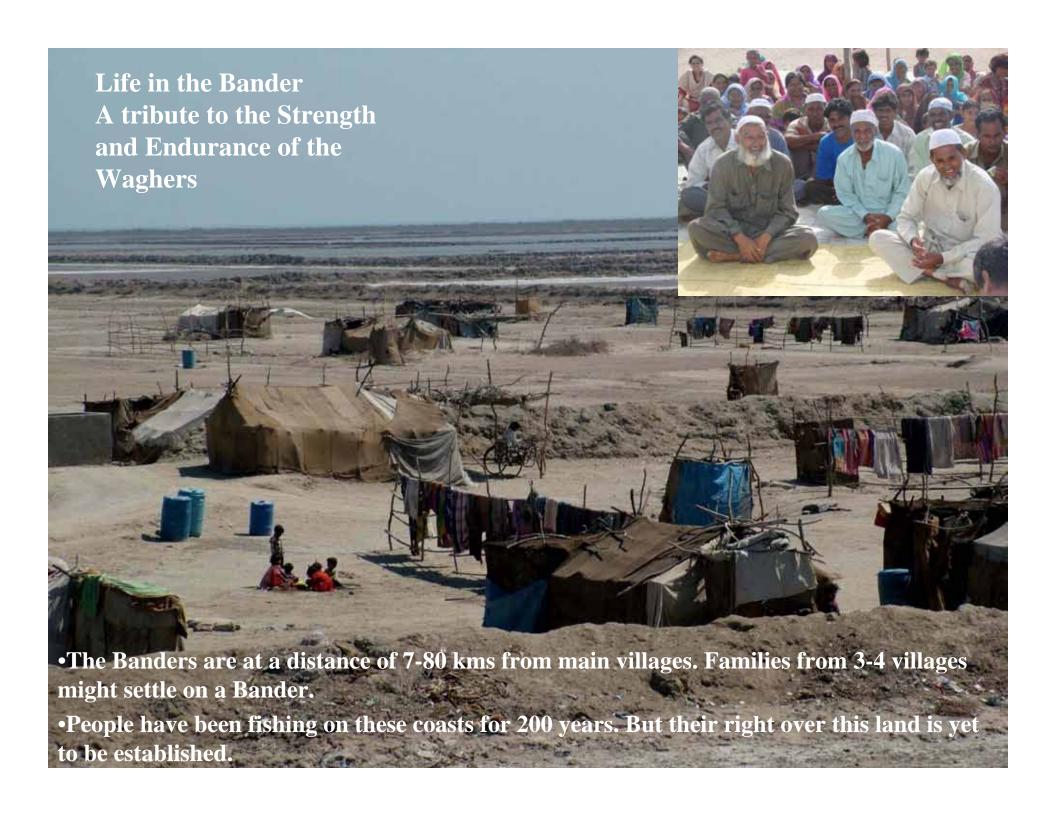
A vast network of creeks, estuaries, mudflats and intertidal area exists due to the conical shape of Gulf of Kutch.

• Fisheries:

Gulf of Kutch provides suitable ecological and environmental conditions and sustains a variety of exploitable species fishes with an annual average catch of 1.4 lakh tons.

•Marine National Park:

An area of 457.92 sq. km in Gulf of Kutch was declared as Marine Sanctuary and 162.89 sq. km was notified as Marine National Park.





The Pagadia fishworkers stay in the villages and enter into the sea on foot to lay net and catch fish.

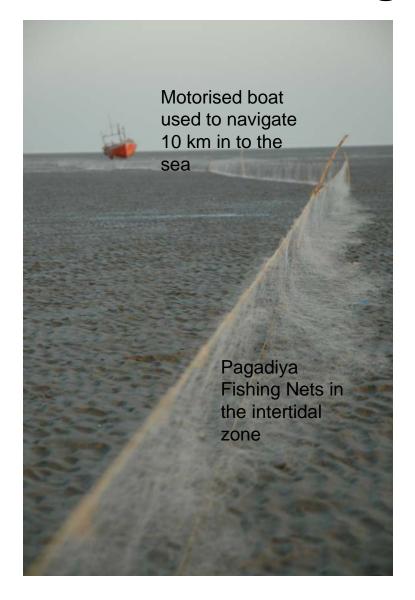


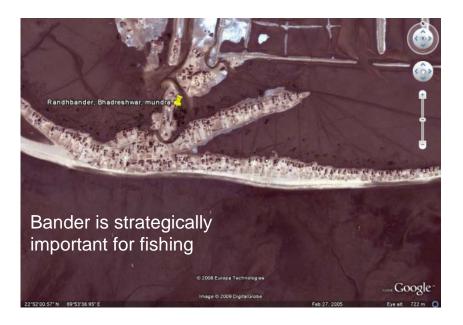


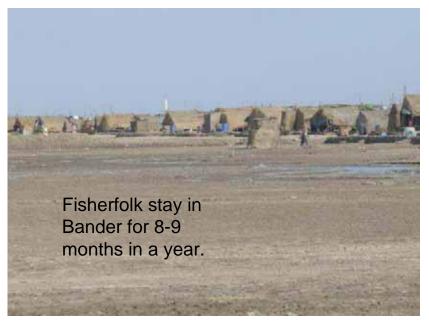
The boat owners use their wooden or fibre boats to enter deep into the sea using oil engines and lay the net manually. The boat fish workers stay at settlements close to coasts for eight-nine months every year and come to live in the villages only during monsoon.

The entire family plays a major role in the fishing occupation. Women perform the only value additions done to fish here, viz., sorting and drying. Women are also involved in selling fish at local markets and in house to house retail sale of fish.

Traditional Fishing







Though Fisherfolk have been using the Banders for over 200 years, their rights over the Bander are not recognized.

Vulnerabily due to Social Exclusion and Marginalization

- Exclusion as Low social status for *Waghers*
- Considered as "Paap no Dhadho" by major castes in the area
- Exclusion as low/no say in local governance
- Families stay in the settlements for more than 8 months
- No linkages with native villages as well as villages closer to settlement
- Exclusion as low/ no access to health/education services
- No ICDS/school and health services reaching to community
- Children not enrolled in to schools, High drop out rates and hence illiteracy
- 10% of families have a physically handicapped person

Industries

Almost entire stretch of coast used for Port/SEZ

Nearly 25,000 MW coal based power plants

Industries along the National Highway

Top 3 type of Industries

Multipurpose Port / SEZ

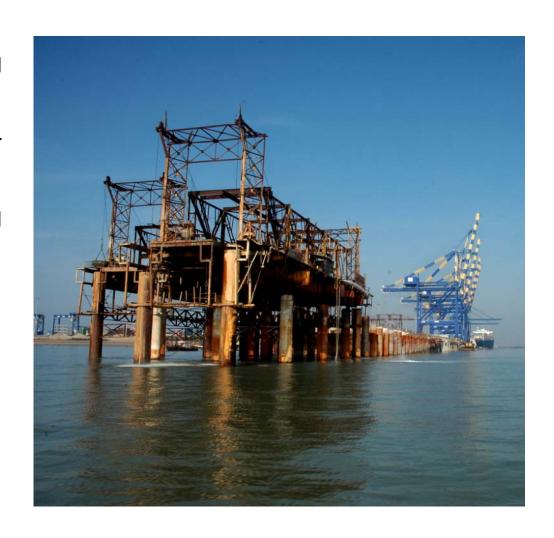
Power Plants (5)

Metallurgical Industries (9)

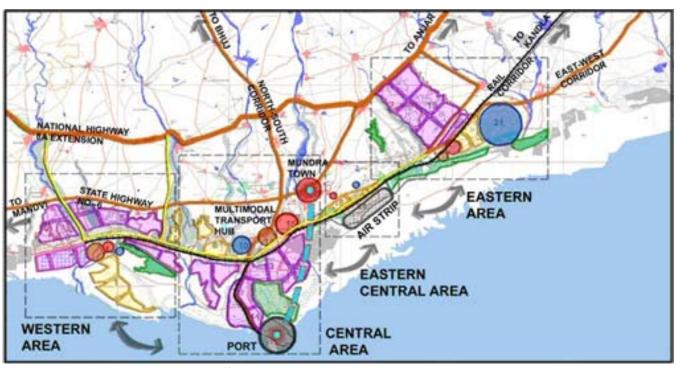
Total Investment: 1,41,909 Cr

No. of Industries: 44

Employment Generated: 50915



Impact of Mundra Port / SEZ



- Mundra coast declared as SEZ which has covered 16,000 HA.
- Implementation of SEZ affects
 - > Traditional Livelihoods
 - > Marine ecology
 - > Socio Economic conditions of the local community
 - Local Environment

In 1999 fish workers from Navinal, Jarpara and Tuna had to leave the settlements. Same thing may get repeated

Affected Livelihoods – Fisheries

Location of different Marine Fishing Villages (Bandars) in Mundra Coast superimposed on the map of the proposed MPSEZL (WFDP)



Figure 2.2.1: Infrastructure facilities in MPSEZL

Annual Fish Production in the area affected by the MPSEZL/WFDP

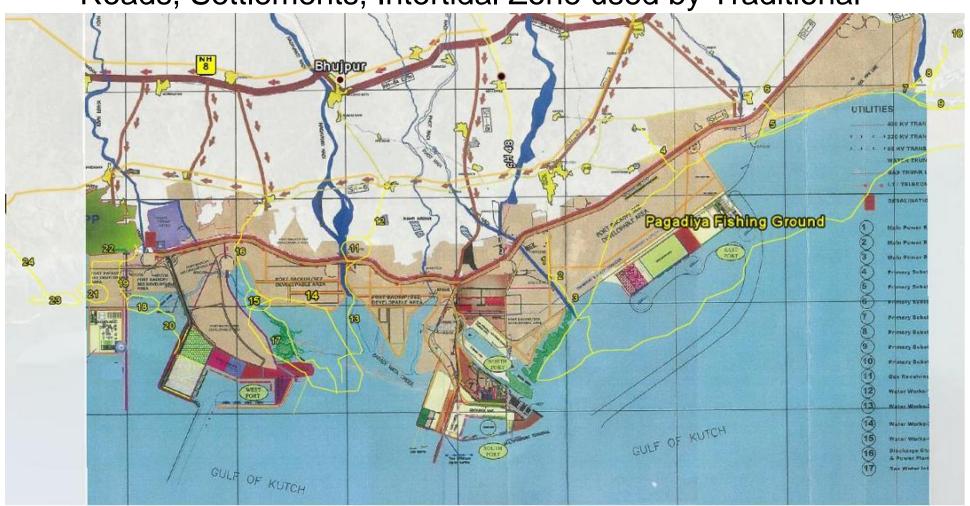
12027 MT, Rs.60.8 Cr

Source of data (Annual Fish Catch in MT): Fisheries Department Bhuj.

Note:

- 1. Average annual fish catch for the period 2000-05 has been mentioned.
- 2. Total Fish catch includes Fish catch by mechanized boat and Pagadia fishing.
- 3. Value of Fish catch has been calculated on basis of current Market Prices.

WFDP project map superimposed on map of Access Roads, Settlements, Intertidal Zone used by Traditional

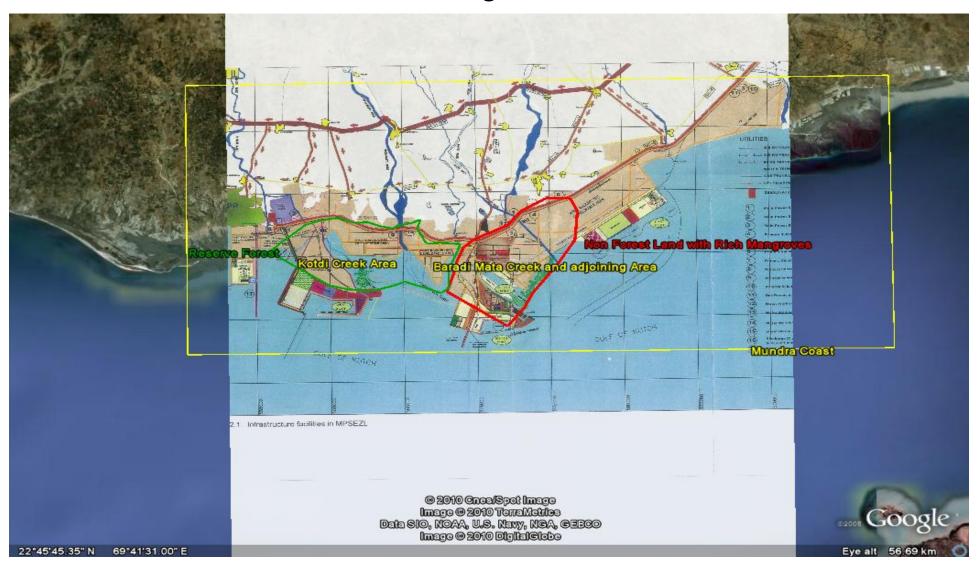


1,4,6,8,10,12,16,19,22,24 – Access Roads used by Traditional Fisherfolk. 2,5,7,9,11,15,18,21,23 - Settlements (Banders) used by Traditional Fisherfolk. 3,13,17,20 – Creeks/ Intertidal Area used by Traditional Fisherfolk.

Researve Forest And Non forest Land With Rich Mangrove Area



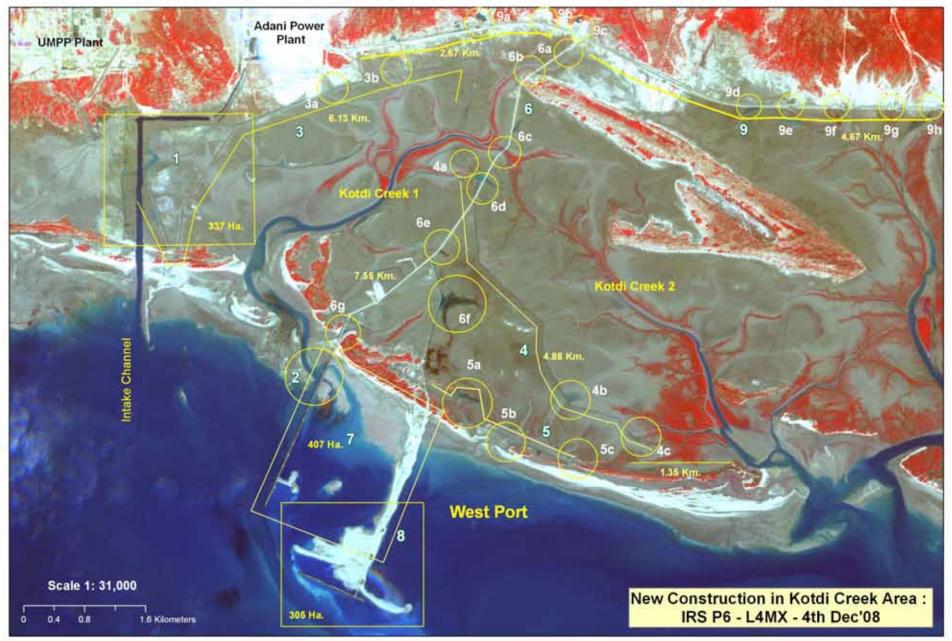
Super impose in Waterfront Project



Original terrain of West Mundra Coast (in 2005)



New construction in West Mundra Coast (as seen in Dec 2008). EC was given in January 2009, In principle FC was given in February 2009



Original terrain of Central Mundra Coast (in 2005)



New construction in Central Mundra Coast (as seen in Dec 2008). EC was given in January 2009, In principle FC was given in February 2009



Mangrove being destroyed in Mundra cost









Mangrove being destroyed in Mundra cost









Threat to Ecology

- Corals in the area affected due to turbidity caused by dredging.
- Marine life affected due to oil spills.
- Increase in Soil erosion due to bunding.
- Marine life affected due to increase in Salinity of sea water.
- Threat to turtle grounds found in Gulf of Kutch.



Socio-economic conditions Affected

- Literacy is low, and the people do not have any other skill apart from fishing. Their livelihoods are at grave risk.
- Influx of people from other areas leading to changes in the demography of the region.
- The traditions and culture of the Wagher community that is closely linked with their fishing activity is likely to be affected.
 Mainly, status of women is likely to be affected.



Threat to Local Environment

- Increase in Salinity of water leading to poor quality of drinking water in surrounding areas.
- The companies coming up in the SEZ are exempt from public hearings for Environmental Impact.
 Pollution (Air, Water, Noise) likely to increase.

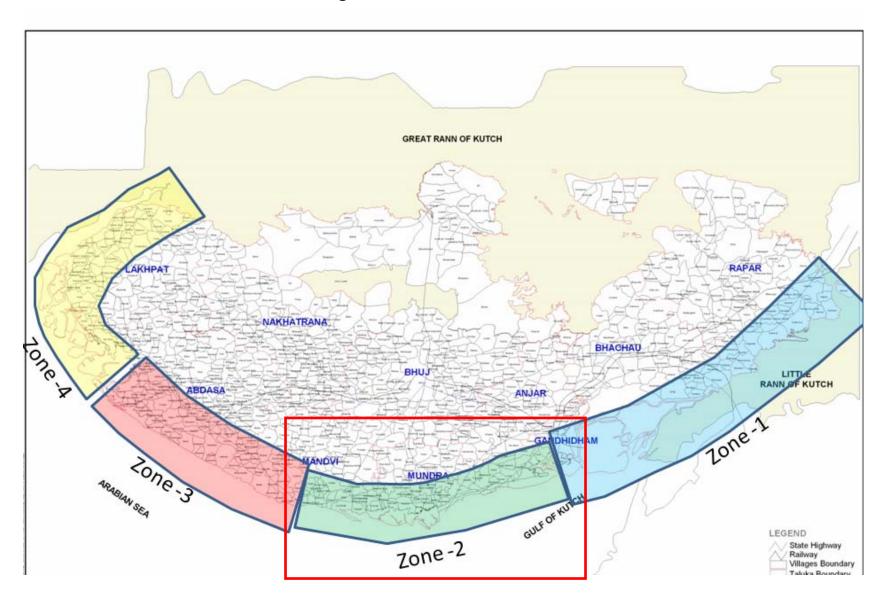


OPG Project Overview

- A 300 MW coal based power plant is being proposed. The generated power is supplied to industries and not to the power grid.
- The total land that has been procured for the power plant is 316 acres.
- Indonesian Coal will be brought in through Mundra / Kandla ports located 25/50 kms away. Daily 150-200 trucks are needed to carry coal from the port to the power plant.



4 Zone: Surajbari To Gandhidham



Water intake and outfall

- Desalination plant will be used for supply of drinking water/ pure water for the operation of the power plant.
- Nearly 540 lakh litres of water will be drawn from the sea in a day.
- Nearly 270 lakh litre of warm water will be discharged into the sea every day.
- Nearly 90 lakh litres of Highly saline water will be discharged into the sea every day.

Waste Products

- Minimum of 9,000 tonnes of Flyash will be generated every month.
- Acidic gases such as Sulphur Oxide and Nitrous Oxide will be released by the power plant.

Project Impact

- 1. Randh Bander has the second largest fish production in Kutch, next only to Jakhao. If the power plant is implemented, Boat Fishing would be completely stopped in Randh Bandar as Fisherfolk are likely to be physically displaced from their settlement
 - 2. Fisherfolks' access road to the Bander is likely to be blocked by the boundary walls of the Power Plant.
 - 3. Fishing would be affected due to construction of Desalination plants proposed near the coast.
 - 4. Fishing in the region would be affected due to discharge of sea-water used for cooling into the sea.
 - 5. Pagadiya Fishing will be completely stopped as access roads to Fishing grounds will be blocked to restrictions imposed by Power Plant.
 - 6. Fly ash and toxic gases generated by the power plant will make the area uninhabitable.
 - 7. There are several Saltpans in the area. The poisonous waste products of the power plant are likely to affect the saltpans.

History of Fisherfolk's struggle

- 2004 Memoranda to Collector to recognize Bander Land
- 2006 Shekhadia struggle 32 day agitation to gain access road to Fishing Grounds. This lead to formation of MASS.
- 2008 MASS in association with NFF opposes CMZ notification
- 2009 MASS agitation for protection of traditional rights in the midst of Industrial expansion(Adani Mundra Port and SEZ, OPG Power Plant etc).
- 2009 Appeal in NEAA for cancellation of Environmental clearance for Adani Mundra Port and SEZ.

Fisherfolk agitations to protest against displacement by Adani Mundra Port and SEZ.





Fisherfolk agitations to protest against displacement by OPG Power plant.









