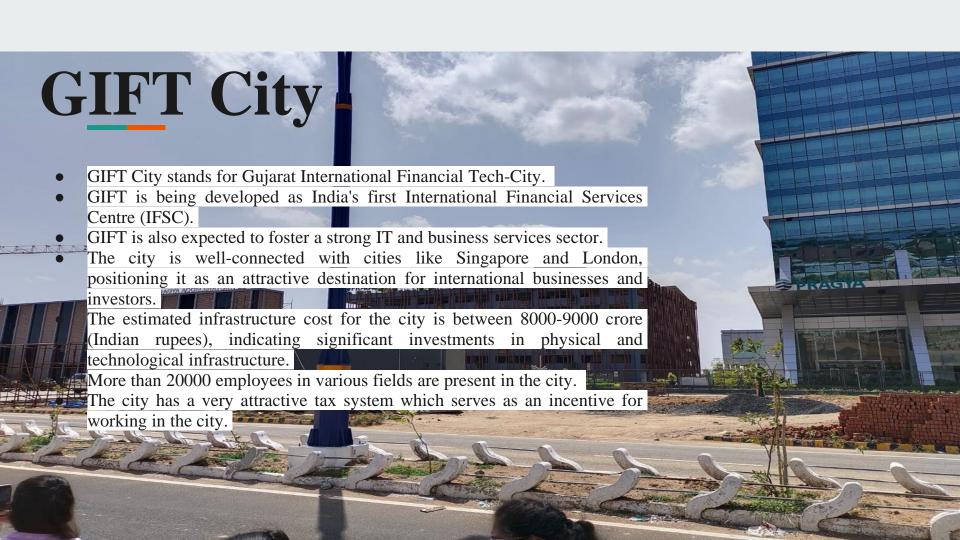
GUJARAT REPORT

By - Students of MSc Economics Urban Development Batch - 2021-2023

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GIFT City

- GIFT's mobility structure is highly developed, and the city boasts unique features such as a utility tunnel and an automated waste collection system.
- Land use of GIFT city
 - o 67% Commercial
 - o 22% Residential
 - o 11% Social
- New verticals
 - Aircraft's, leasing and financing
 - Bullion exchange
- GIFT is independent of any Municipal services. The GIFT Urban Development Authority and the Notified Area Committee are the governing and developing bodies in GIFT City.

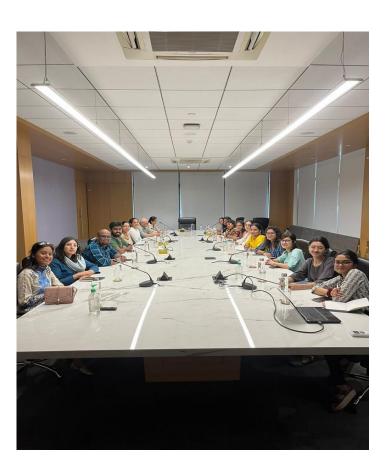


Utility Tunnel

Automated Waste Management Facility



Future Residential Spaces





RUDHABAI STEPWELL

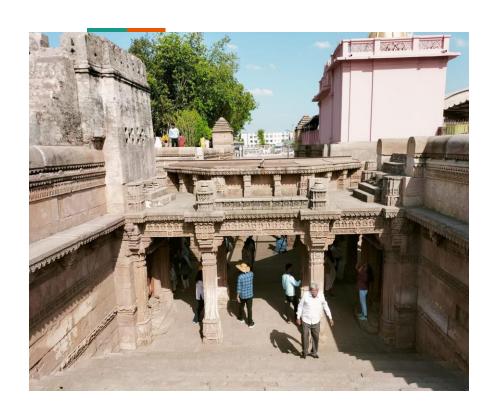
- Rudhabai stepwell or Adalaj stepwell is an archeological heritage of Gujarat, which is located Gandhinagar District, Ahmedabad, Gujarat.
- This stepwell, a five storied building has been constructed in late 16th century. Making up an essential part of Ahmedabad's history, Adalaj Step Well was commissioned by queen Rudabai.

- The history of Rudabai Stepwell was established with the help of Sanskrit inscriptions written in Devanagri Script.
- The script was found in a marble slab positioned in a recess on the first floor, from the eastern entry of the well.
- Depictions narrate the birth of Karna and son Mularaja summarizes the well, praises for the queen and repetition of the date.

CONSTRUCTION

- There are three entrance stairs leading into the stepwell.
- A spectacular example of Indo-Islamic architectural style and design features a striking pot said to contain the water of life and the tree of life sculpted from a single stone.
- One of the most outstanding a defining feature of the step well is the octagonal shaped roof from where some light comes through but mostly protects the insides from harsh summer.
- The topmost part of the stepwell is a structure with only engraved beams and pillars and no roof. This allows enough light to enter.
- But the construction makes sure that direct sunlight doesn't touch steps. This allows the temperature inside this well to be around 6 degrees cooler than the outside.







SABARMATI RIVERFRONT DEVELOPMENT

- Waterfront development project on Sabarmati river bank, Ahmedabad.
- Initiative by Ahmedabad Municipal Corporation.
- Developing Authority Sabarmati Riverfront
 Development Corporation Limited.
- Phase I (till November 2019)
- Cost: 1400 crore rupees, Size: 501.1 acres.

Boating



Parks and gardens



Atal Pedastrian Bridge



FACILITIES AT SABARMATI RIVERFRONT



ALL YOU NEED TO KNOW...

- The longest riverfront walkway in the world.
- India's biggest rehabilitation of affected people.
- Provision of 1640 vendor spaces at appropriate locations.
- Well-designed dhobi ghats for washermen.
- Diverts sewage from 41 outlets of storm water.
- Creation of Avenue for employment and tourism.



OUR VISIT TO THE ATAL PEDESTRIAN BRIDGE AND GARDEN





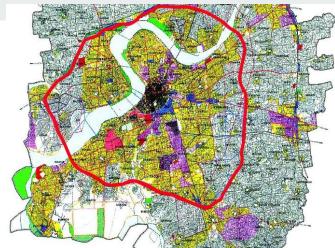
SURAT OUTER RING ROAD

Surat city's growth has been phenomenal over last couple decades it is 4th fastest growing cities in the world and 8th largest in terms of population.

With decadal population of over 11% during 2010-11 and now present population is of 5 million. This increased population in Surat generated lot of industrial, commercial, recreational and educational activities.

Considering the streamlining of heavy traffic congestions and transportation created the need of the comprehensive and integrated approach for city development.

Keeping the future expansion of the fast growing city 90 mts wide 66 kms long outer ring road and surrounding the TP scheme has been planned in the city.

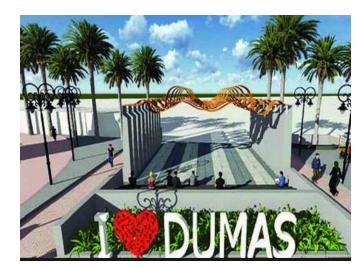


Salient Features

- High Rise High Density development
- TP Scheme as an implementation tool
- Public Private Partnership
- Self Financing Model
- Revenue Generation through Sale of FSI
- Contribution towards Urban Transport Fund
- To promote national level institutions
- Linkages with national highway, expressway and airport
- SPV to implement project

DUMAS SEAFRONT DEVELOPMENT PROJECT

- The project is an initiative by the Gujarat Tourism Department to transform the coastal area of Dumas in Gujarat, India into a modern and world-class tourist destination.
- The project is expected to cover a total area of around 45 acres.
- Dumas seafront project involves government land, forest land, and other lands.
- The development aims to enhance the natural beauty of the area by creating a long and beautiful promenade along the beachfront.
- The project has been divided into four zones. The first phase of the first zone is going to be developed by SMC.
- The planning, DPR and tendering etc for zone 3 is going to be done by SMC in coordination with the Forest department, after which the Forest department will develop it.
- The project has provision for multilevel parking and zone-3 development on forest land should include eco cottage, natural therapy center etc components.
- The project is set to feature several state-of-the-art amenities such as an amphitheater, a food court, a convention center, and a parking area.





SURAT FORT

In the year 2015 Gujrat Government gave the responsibility to Surat Municipal Corporation for restoring Surat Fort,

Then after 25 years and the gradual decline of the city Surat Fort lost in the darkness of oblivion when East India Company shifted its headquarters to Mumbai,

During this time the business flourished very much comparing to every Mughal occupied fort and Surat became the highest revenue earning port.

Then in 1759 A.D. the Britisher captured the fort of Surat, with the Mughal flag hoisted on the southeast.

Enough evidence provided that the fort's construction was initiated during the rule of Firoz Shah Tughlaq in 14th century.

Then during the rule of Sultan

Muhammed 3rd the construction

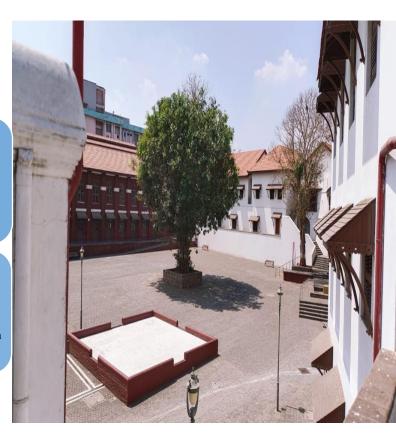
of the fort was extended to

protect the city from the invasion

of Portuguese.

After Mirza's lost the city to Mughals in 1572, Mughal Sarai was constructed by Akbar for the Haj Travellers.

Mughal Sari building is the head office of Surat Municipal Corporation.



LEARNINGS

It's critical to protect the monument's historical integrity during reconstruction. This means that any restoration or remodelling work must be done in a way that preserves the fort's original features and character.

The reconstruction of a historic site like Surat Fort requires the use of conventional resources and methods. By doing this, the monument is guaranteed to maintain its original appearance and be accurate to its historical setting.

It's important to preserve the historical accuracy of the fort, but it's also crucial to make sure the reconstructed monument complies with current safety and structural requirements.

When reconstructing a historical monument, local communities must be involved. This makes it possible for the neighbourhood to participate in the preservation of its cultural heritage and to take advantage of any tourism-related possibilities the monument may bring.



After the repair is finished, continued upkeep and conservation measures are necessary to guarantee the heritage monument's long-term preservation. To avoid damage and deterioration over time, this includes routine inspections, repairs, and cleaning.

Future Prospects for Surat (Explained further)

Surat Diamond Bourse

Dumas Seaface Development

Dream City

Outer Ring Road

DREAM CITY

- Planned by the Australian agency of Haskoning DHV, soon to change the village of Khajod in Surat, DREAMCL or Diamond Research and Mercantile City Limited is an ambitious project undertaken by the Government of Gujarat to accentuate the diamond trading industry in Gujarat.
- While most of India's diamond polishing, cutting and other related procedures happen in Surat, trading of diamond happens in places like BKC, which causes a deviation of profits to the Gujarat Diamond sector. Also, losses are incurred due to occurrence of mishaps during transportation of diamonds. To deal with these issues the concept of DREAM City has been come up with, which would be home to diamond artisans, merchants and traders all at the same time.
- The major stakeholders in the project are the Government of Gujarat, Surat Municipal Corporation and Surat Urban Development Authority



DIAMOND
RESEARCH
AND
MERCANTILE
CITY LIMITED





FACTS AND FIGURES

- 1. DREAM City is supposed to be built over an area spanning 561.98 hectares, with a total investment of Rs.22000 crores.
- 2. Companies with office in DREAM City would be given a lease spanning 99 years by the SMC at a fixed rent.
- 3. As of now, the powers and functions of the Khajod Urban Development Authority is applicable to Dream City as well.
- 4. Development rights would be given to different players in different phases of the project to generate revenue.
- 5. Phase I of the project has been completed with construction of roads and major, sustainable facilities like water supply, cable network, drainage system and other basic necessities, with an extravagant main entrance to the city whose construction cost is estimated to be around Rs.9 crores.

URBAN MOBILITY OF SURAT AND AHMEDABAD

Ahmedahad

- Railways:
 - Well connected railway network
 - Ahmedabad Railway Station was not disabledfriendly
- Auto:
- Shared auto
- Local autos as well as online aggregator platform apps
- Buses:
- Amdavad Municipal Transport Services (AMTS)
- Ahmedabad Janmarg Limited (Ahmedabad BRTS)
- Clean roads, moderate traffic

Surat

- Railways:
 - Well connected railway network
 - Surat Railway Station disabled-friendly; has ramp walk for easy movement
- Auto:
 - Shared auto
 - Local autos as well as online aggregator platform apps
- Buses:
 - Sitilink (Surat BRTS)
 - Mix of diesel, CNG powered buses and EVs
- Cleaner roads than of Ahmedabad, higher traffic

COMPARATIVE ANALYSIS: URBAN MOBILITY IN AHMEDABAD AND SURAT

Buses

Surat

- ➤ BRTS route runs across 108 km
- > 700 bus fleet
- > Fare range Rs. 4 to Rs. 20
- > Bus station clean
- > Buses after every 10 minutes

Ahmedahad

- ➤ BRTS route runs across 29 km
- ➤ 1292 bus fleet

Railways

Surat

- ➤ Cleaner railway platforms in Surat Railway Station
- > Platforms more accessible for commute
- Railway station less congested
- Passengers can easily move across platforms owing to ramps

Ahmedabad

- ➤ Ahmedabad Railway Station less congested
- Platforms difficult to access for commute
- Railway station more congested
- Passengers find it difficult to move across platforms as there are steep staircases leading to the overhead footbridge

SITE VISIT: CANAL CORRIDOR & SITILINK (SURAT BRTS)

Canal Corridor

- ➤ Launched by Surat Municipal Corporation (SMC)
- > Part of the second phase of the Surat BRTS
- Connects New Textile Market, Bhatena and Nehru Nagar
- Project undertaken to improve the unhealthy condition prevailing along the Surat Canal and to maximise utilisation of the road width within the city, building an environment which helps mobility on the corridor and builds an environment friendly atmosphere
- Successful conversion of the space around the canal to sufficiently wide road for transport mobility, pedestrian safety and well developed walkway with aesthetic landscape on both sides of the canal

Sitilink

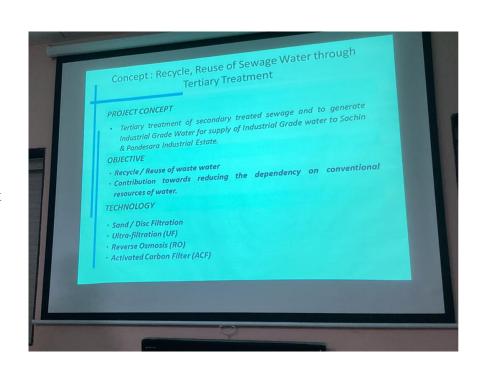
- Clean bus stations and stops but congested
- > 700 bus fleet still inadequate
- ➤ Bus fare ranging between Rs. 4-20 affordable
- ➤ 150 electric buses; greater adoption of EVs recommended
- ➤ Lifeline to the city dwellers

TERTIARY SEWAGE TREATMENT PLANT

There is heavy demand for water from Surat's two major industries: Textiles and diamonds.

The Bamroli plant has a capacity to treat 1010 MLD (million litres per day) of liquid waste. There are presently 63 sewage pumping stations and 11 treatment plants in Surat.

They have a long term (10 years) bilateral agreement with industries to purchase treated water from them.

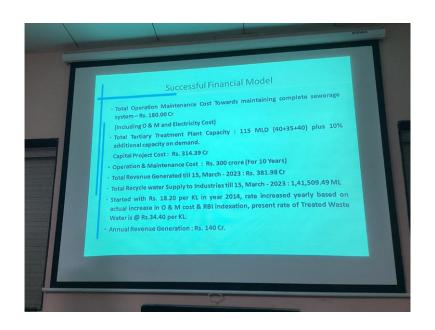


FINANCIAL MODEL OF THE BAMROLI PLANT

The plant has a sustainable and successful financial model, recovering 100% of its O&M costs.

The maximum demand comes from textile clusters and industrial use, with lake rejuvenation projects, agriculture, the DREAM city project and biodiversity park comprising other uses.

The same plant houses a biogas plant that generates and supplies electricity.



FUTURE PLANS AND TAKEAWAYS

Presently, 30% of the treated water is recycled, and the eventual plan is to recycle 100% of the liquid waste that comes into the plant.

The chief scientific officer informed us that one ton of water is required to produce 3 pairs of jeans. This is much higher than any domestic use requirement.

Further, the total dissolved salts (TDS) level required for commercial use is much lower than that for drinking water i.e. it needs to be extremely pure. The most important takeaway was that the focus for recycling and reusing water must be more on indirect usage, as the volume consumed is exponentially higher.

