

# Study of Dholera Special Investment Region

Diya Patel

Undergraduate Student at Unitedworld School of Law, Karnavati University

## ABSTRACT

This study examines the issues faced by Gujarat, India's Dholera Special Investment Region (DSIR) as it transitions to an entrepreneurial urbanization paradigm. The main focus of the study challenge is to comprehend the development trajectory of DSIR, specifically with respect to industrial expansion and sustainable urbanization, while tackling problems like land acquisition disputes and delays in infrastructure. The study uses a mixed-method approach, drawing on secondary literature analysis, industry reports, and direct data from governmental sources. It looks at the beginnings of DSIR, its growth plan, its corporate directional approach, and the wider socioeconomic effects of its evolution. The primary conclusions point to a paradigm shift toward a "entrepreneurial urbanization" model that is driven by funding from the private sector and government assistance. However, obstacles like property disputes and delays in infrastructure provide serious obstacles to the advancement of DSIR.

**Keywords:** Dholera, Investment, Gujarat

## CHAPTER 1: INTRODUCTION

The Dholera Special Investment Region (DSIR) is a shining example of India's aspirational goals for urbanization and economic expansion in the twenty-first century. DSIR is a prime example of the government's proactive strategy to promoting industrialization, infrastructure development, and sustainable urbanization. DSIR is a greenfield industrial city planned, developed, and managed by a special purpose vehicle (SPV) called Dholera Industrial City Development Limited (DICDL), which was formed by the Government of India (NICDIT) and the State Government (DSIRDA)<sup>12</sup>. It is located in the dynamic state of Gujarat. DSIR, positioned as a pivotal hub within the vast Delhi-Mumbai Industrial Corridor (DMIC) initiative, signifies a fundamental transformation in India's economic terrain. Its objective is to utilize its advantageous location, resilient infrastructure, and inventive policies to stimulate industrial expansion and draw in both local and international capital<sup>3</sup>.

## CHAPTER 2: BACKGROUND

The inception of DSIR can be traced back to the visionary Gujarat Infrastructure Development Board (GIDB) and the combined efforts of the Gujarati government and other stakeholders to unleash the economic potential of the region. Situated between Ahmedabad and Vadodara, the industrial hubs of

<sup>1</sup> 'Dholera Solar Power Plant | Big Investment in Dholera SIR Project' <<https://www.smart-homes.in/dholera-solar-power-plant/>> accessed 21 April 2024.

<sup>2</sup> User, S. (no date) *Dholera, Special Investment Region*, [www.nicdc.in](http://www.nicdc.in). Available at: <https://www.nicdc.in/index.php/delhi-mumbai-industrial-corridor-dmic/dholera-special-investment-region-gujarat.html> (Accessed: 19 April 2024).

<sup>3</sup> 'Dicdl About Us | Dholera' <[https://dholera.gujarat.gov.in/about\\_us](https://dholera.gujarat.gov.in/about_us)> accessed 21 April 2024.

Gujarat and Delhi, DSIR occupies an area of over 903 square kilometers in the Gulf of Khambhat region. It is ideally situated along the Delhi-Mumbai Industrial Corridor. This excellent position makes DSIR an even more alluring place for investments because it's close to important cities and ports and acts as a gateway to international trade routes<sup>4</sup> The Objective of DSIR is to contribute to India's goal of socio-economic development by increasing exports, foreign investment, increasing innovation, industrialization and promoting sustainable urbanization.

### CHAPTER 3: VISION

To build a cutting-edge, green field, smart industrial city that is socially and economically balanced, has world-class infrastructure, and maintains a high standard of living that is sustainable and green<sup>5</sup>.

### CHAPTER 4: MISSION

1. To build a centre for global manufacturing.
2. To build a smart city of the future by implementing a sustainable strategy across all essential elements.
3. Provide both skilled and unskilled workers with jobs.
4. To encourage ease of conducting business and foster an atmosphere that is conducive to business<sup>6</sup>.

### CHAPTER 5: STRATEGIC PLANNING

#### 5.1 ENVIRONMENTAL SCANNING

##### EVENTS

1. **Project Inception:** India's ambitious plan to build many smart cities and industrial corridors to promote economic growth and urban development included the Dholera project in its conceptualization<sup>7</sup>.
2. **Land Acquisition:** The government has started acquiring land under Special Investment Region Act. However, there are still certain controversies related to such acquisitions<sup>8</sup>.
3. **Infrastructure Projects:** Variety of infrastructure projects such as construction of a four-lane highway between Ahmedabad and Dholera, Greenfield Airport, Railway connectivity have either been initiated or completed<sup>9</sup>.

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<sup>4</sup> 'Ref 3 SM'.

<sup>5</sup> 'Home | Dholera' <<https://dholera.gujarat.gov.in/#>> accessed 21 April 2024.

<sup>6</sup> ibid.

<sup>7</sup> 'Government Plans Industrial Corridors, Smart Cities to Boost Manufacturing - The Economic Times' <<https://economictimes.indiatimes.com/news/economy/policy/government-plans-industrial-corridors-smart-cities-to-boost-manufacturing/articleshow/45694048.cms?from=mdr>> accessed 21 April 2024.

<sup>8</sup> 'Dholera SIR Land Acquisition: Gujarat HC Seeks Explanation from Govt | Ahmedabad News - Times of India' <<https://timesofindia.indiatimes.com/city/ahmedabad/dholera-sir-land-acquisition-gujarat-hc-seeks-explanation-from-govt/articleshow/67338477.cms>> accessed 21 April 2024.

<sup>9</sup> 'Dholera Smart City - SmartHomes No.1 Real Estate Developer In Dholera SIR' <<https://www.smart-homes.in/>> accessed 21 April 2024.

## TRENDS

**Industrialization:** An industrialization tendency is being observed by the Dholera project, with an emphasis on luring technology, manufacturing, and logistics firms to establish operations in the area<sup>10</sup>.

- (1) **Smart City and sustainable development:** DSIR has prioritized a number of green initiatives including sustainable urban planning. It has prioritized trash management, water conservation, and renewable energy sources. The city wants to leave as little carbon imprint as possible. DSIR will include initiatives like green building, 100% waste management and water treatment facilities, land use planning, sustainable eco-transport and mobility, renewable energy generation and utilization, and much more in order to reach a net zero environmental effect<sup>11</sup>.
- (2) **Real Estate Growth:** Dholera is one of the busiest foundations for real estate development. The project's goal is to urbanize the city by building cutting-edge, contemporary homes and offices<sup>12</sup>.
- (3) **International Collaborations:** Increasing cooperation to take advantage of knowledge and investment in the project from foreign partners and investors, including nations like Singapore, Japan, and the United Arab Emirates. The Japan International Cooperation Agency (JICA) and the Japan Bank for International Cooperation (JBIC) are investing 4.5 billion dollars in the Delhi-Mumbai Industrial Corridor project. Japan owns a 26% share in the project, of which this investment is a part of the first phase<sup>13</sup>.

## ISSUES

- (1) **Delays:** Although there has been progress, there have been setbacks in finishing infrastructure projects like the road networks and airport, which may affect the overall development speed.
- (2) **Land Acquisition challenges:** For DSIR, land acquisition is a huge issue as the farmers are not satisfied with the compensation and the jobs offered to them.
- (3) **Financial constraints:** It is still difficult to get long-term investment and sufficient funding for infrastructure development, especially when competing priorities and economic uncertainty are involved.

## EXPECTATIONS

- (1) **Economic growth:** DSIR is expected to boost the economic growth and overall development of Gujarat as well as India.

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<sup>10</sup> 'Semiconductors Are India's Leap into Fourth Industrial Revolution - Nagaland Post' <<https://nagalandpost.com/index.php/2024/03/15/semiconductors-are-indias-leap-into-fourth-industrial-revolution/>> accessed 21 April 2024.

<sup>11</sup> 'Dholera Smart City - Sustainable Green Eco System' <<https://www.dholera-smart-city-phase6.com/blog/dholera-smart-city-sustainable-green-eco-system>> accessed 21 April 2024.

<sup>12</sup> 'Dholera Smart City Gujarat | DMIC Projects | Property Schemes in Dholera SIR' <<https://www.ctdevelopers.in/>> accessed 21 April 2024.

<sup>13</sup> 'DHOLERACITY | Japan Invests USD. 4.5 Billion in DMIC Project' <<https://dholeracity.in/web/Japan-Invests-USD.-4.5-Billion-in-DMIC-Project-June-2019.html>> accessed 21 April 2024.

- (2) **Investment flows:** Given the project's advantageous location and the backing of the government, there are strong expectations for drawing sizable investment inflows from both domestic and foreign sources.
- (3) **Sustainability:** It is anticipated that the project will place a high priority on environmental preservation and sustainability, serving as a model for other urban development initiatives in India and abroad.

**5.2 STRATEGIC ADVANTAGE PROFILE (SAP)**

Capability Factors	Nature of Impact	Competitive Strengths/Weaknesses
Finance	Critical for operational efficiency and attracting investors	Significant funding for the development of infrastructure and project implementation is guaranteed by the central government and the Government of Gujarat's strong financial assistance. (Strength)
		Tax breaks, subsidies, and low-interest loans are examples of enticing investment incentives that promote private sector investment and boost economic activity. (Needs monitoring)
		Possibilities for Public-Private Partnerships (PPPs) in infrastructure projects offer access to extra funding sources while dividing responsibilities and risks between the public and private sectors. (Needs Improvement)
Marketing	Essential for brand awareness and client acquisition	With an emphasis on its advantageous business climate, modern infrastructure, and strategic location, Dholera is positioned as a top investment destination. (Strength)
		Raising awareness and drawing investors from important foreign markets are achieved through focused marketing campaigns and participation in international trade shows and investment summits. (Strength)
		Investment potential in particular industries, such manufacturing, logistics, renewable energy, and technology, are highlighted by tailored marketing tactics. (Strength)
Operations	Impacts efficiency, accuracy, and client satisfaction	The prompt execution of infrastructure projects, including those related to roads, utilities, and airports, guarantees seamless

		functioning and expedites commercial endeavors.(Needs improvement)
		Businesses operating in Dholera can cut costs and increase their competitiveness by optimizing the flow of goods and services through effective supply chain networks and logistics. (Strength)
		In Dholera, using smart city solutions and cutting-edge technologies improves resource management, operational effectiveness, and service delivery. (Strength)
Personnel	Highly skilled workforce is critical for success	The goal of working with educational institutions and vocational training programs is to create a workforce that is skilled and suited to the demands of Dholera's industry. (Needs monitoring)
		Well-being programs support workers' health, safety, and welfare while raising morale and productivity levels at work. (Needs improvement)
Information	Quality data and information are vital for decision making	Government organizations, corporations, and investors may make well-informed decisions by having access to real-time data and analytics, which optimizes resource allocation and investment strategies. (Strength)
		Strong cybersecurity procedures protect digital infrastructure, vital systems, and sensitive data from cyberattacks and breaches. (Critical)
General Management	Strong leadership is essential for strategic direction	Dholera's sustainable development and expansion are guided by strategic initiatives, thorough master planning, and long-term vision. (Strength)
		In general management techniques, innovation, efficiency, and quality are driven by an emphasis on ongoing learning, feedback mechanisms, and performance evaluation. (Strength)

### 5.3 ETOP ANALYSIS

#### Environmental Opportunities:

- (1) Industrial growth:** An industrial park is also being developed in the heart of DSIR which attracts investments from domestic as well as international companies.

- (2) **Increase in exports:** Industrial growth, Strategic location and excellent connectivity of DSIR is expected to increase exports more and more.
- (3) **Real estate development:** Townships are being developed in DSIR and sustainable urbanization planning is making the place fit for people to live and is all set to increase the living standards.
- (4) **Tourism:** Dholera is also home to lots of historical places. This will also attract tourist and so the hospitality industry in Dholera is also developing at a great pace.

#### **Environmental Threats:**

- (1) **Political Instability:** Risks of political unrest at the state or federal levels, which could cause ambiguity in policy and impede the execution of projects. This is because of difference of opinion of the leading political party and the opposition with respect to the project.
- (2) **Vulnerability:** Risks associated with natural disasters include the potential for earthquakes or floods, which could demolish infrastructure and cause disruptions to business operations.
- (3) **Market Stability:** Tensions both domestically and internationally that cause market instability can influence an investor's choice and cast doubt on the project's viability.

## **5.4 CONSOLIDATED SWOT ANALYSIS**

### **STRENGTH**

- (1) **Strategic Location:** With its advantageous location along the Delhi-Mumbai Industrial Corridor (DMIC), DSIR has easy access to ports and international trade routes in addition to being close to important cities like Ahmedabad and Vadodara. It even has its own Airport which is located at a distance of 80ks from Ahmedabad and is going to be one of the largest airports of Gujarat<sup>14</sup>. Its position makes it more appealing as a place to invest<sup>15</sup>.
- (2) **Government Support:** The government has provided an initial support of Rs. 3000 Crore for this project<sup>16</sup>. The Gujarat government has allocated significant amount of Rs. 122.26 Cr for development of the Dholera airport in fiscal year 2024-25<sup>17</sup>. Moreover, Dholera provides a range of tax breaks and incentives to entice investors. These considerably lessen the financial strain on businesses and include income tax exemptions for a set period of time as well as GST exemptions for particular industries<sup>18</sup>. The Dholera SIR has a single-window clearance system that is both effective and efficient. This cuts down on red tape, expedites the licensing and permit procedure, and enables companies to launch their operations right away<sup>19</sup>. The state government of Gujarat

<sup>14</sup> 'Home - Dholera Project' <<https://dholeraproject.com/>> accessed 21 April 2024.

<sup>15</sup> 'Dholera Special Investment Region, Gujarat' <<https://www.nicdc.in/index.php/delhi-mumbai-industrial-corridor-dmic/dholera-special-investment-region-gujarat.html>> accessed 21 April 2024.

<sup>16</sup> 'Home - Dholera Project' <<https://dholeraproject.com/>> accessed 21 April 2024.

<sup>17</sup> 'Gujarats 2024 Budget Allocates Huge Funds for Dholera Airport Project - Dholera Prime' <<https://www.dholeraprime.com/gujarats-2024-budget-allocates-huge-funds-for-dholera-airport-project/>> accessed 21 April 2024.

<sup>18</sup> 'Investor-Friendly Policies in Dholera: A Catalyst for Gujarat's Growth' <<https://dholeraland.com/investor-friendly-policies-in-dholera/>> accessed 21 April 2024.

<sup>19</sup> *ibid.*

aggressively supports Dholera enterprises. Frequent communication, investor gatherings, and business-friendly regulations create an atmosphere that allows companies to grow confidently<sup>20</sup>

**(3) Infrastructure Development:** DSIR is experiencing considerable infrastructure development, which includes the construction of world-class utilities, transit networks, industrial parks, and social facilities. This powerful infrastructure backbone improves the region's industrial competitiveness and livability. Infrastructure such as a four-lane expressway between Ahmedabad and Dholera is expected to be completed and ready to use in 2024. A metro rail with a multi-modal transport system including regional goods corridor, public transport corridor, internal transport, BRT and Mass rapid transport is also being developed<sup>21</sup> ReNew Power, a prominent developer of renewable energy parks, is constructing a 100-acre manufacturing complex for solar modules and cells. According to the government, Torrent Power has established a power distribution network in Dholera to satisfy the needs of the industrial area<sup>22</sup> Over 8,500 hectares of land in the DSIR Coastal Regulation Zone have been designated for the construction of a solar park. In Dholera SIR, there are several residential townships spanning 500 acres of land<sup>23</sup>.

**(4) Sustainable Development:** DSIR has put emphasis on Sustainable urban planning and various green initiatives. It has put focus on renewable energy sources, water conservation as well as waste management<sup>24</sup> The city aims on having minimum carbon footprint. In order to achieve a net zero environmental impact, DSIR will incorporate activities such as green buildings, 100% waste management and water treatment facilities, land use planning, sustainable eco-transport and mobility, renewable energy generation and usage, and much more<sup>25</sup> The 4400MW Solar Park project at Dholera is expected to revolutionize the nation's energy production landscape and contribute to the achievement of the 250 GW renewable energy generation target by 2030<sup>26</sup>

#### WEAKNESS

**(1) Land disputes:** DSIR will lead to growth and prosperity however not everyone agrees to this. It is argued that the project will destroy lives of 11,000 residents of that place. The farmers of the region opposed for this. Pradhyumna Singh who is the president of Bhal Bachao Andolan says that, "Rehab and compensation are nonexistent concepts in SIR Act. They only want to remove

<sup>20</sup> *ibid.*

<sup>21</sup> 'First Phase of Dholera Smart City Nearly Fully Completed: Officials, ET Infra' <<https://infra.economictimes.indiatimes.com/news/urban-infrastructure/first-phase-of-dholera-smart-city-nearly-fully-completed-officials/106115674>> accessed 21 April 2024.

<sup>22</sup> 'Dholera Industrial Smart City Nears Completion, Set to Drive Global Investments' <<https://ipfonline.com/news/detail/industrynews/dholera-industrial-smart-city-nears-completion-set-to-drive-global-investments/15062>> accessed 21 April 2024.

<sup>23</sup> 'Dholera Smart City Projects' <<https://www.dholera-smart-city.com/ourprojects.html>> accessed 21 April 2024.

<sup>24</sup> '(17) Dholera Smart City Project: An Envision of a Sustainable, Futuristic Urban Hub | LinkedIn' <<https://www.linkedin.com/pulse/dholera-smart-city-project-envision-sustainable-urban-dholera-u2lsf/>> accessed 21 April 2024.

<sup>25</sup> 'Dholera Smart City - Sustainable Green Eco System' <<https://www.dholera-smart-city-phase6.com/blog/dholera-smart-city-sustainable-green-eco-system>> accessed 21 April 2024.

<sup>26</sup> 'Dholera SIR India's Greenfield Smart City Leading in Sustainable Development' <<https://www.ethereuminfracon.com/dholera-sir-indias-greenfield-smart-city-leading-in-sustainable-development/7/>> accessed 21 April 2024.

half of our land without paying us anything, and the other half will be given to us in places that aren't suitable for farming.<sup>27</sup>”

- (2) The people of that region are of opinion that the government is taking away their land and giving no compensation. The jobs they are offering are not feasible as there is no education in that area. However, agriculture can be done by everyone but that educated or not.
- (3) **Skill Gap:** The labour available in that area is not skilled. Training and development of these labourers will require ample amount of resources.
- (4) **Competition:** Competition from nearby states and other industrial areas in Gujarat means that differentiating techniques are needed to draw in investment.

### OPPORTUNITIES

- (1) **Industrial growth:** By 2030, smart city Dholera is expected to require more than 9,500 hectares of industrial area overall. Thus, in the center of DSIR, which is to be situated 100 kilometers south of Ahmedabad, the central government has planned to establish a number of giant industrial parks<sup>28</sup>. This will promote the Make in India initiative as well as Startup India initiative. Companies like Adani, Tata, L and T, Essar, Mahindra, Suzlon Group etc are some of the major companies investing in the project and establishing their presence in the city<sup>29</sup>
- (2) **Increase in exports:** DSIR is a hub of multiple industries with connectivity to different cities and states and different nations as well via ports and flights. As a result of this DSIR will be an Export hub and increase the exports by at least 4 times of that area.
- (3) **Real estate development:** One of the most active foundations for real estate development is Dholera. The project aims to urbanize the city by constructing high-tech modern residences and workplaces<sup>30</sup>. Purchasing residential plots in Dholera SIR offers a profitable chance to earn rental income and capital appreciation. Investment is expected to increase dramatically as the city expands and demand rises, resulting in long-term financial stability and wealth development<sup>31</sup>
- (4) **Tourism:** The alluring dualism of Dholera holds the key to its tourism potential. The archeological sites inside the city limits will fascinate history aficionados, whispering tales of medieval settlements and the Indus Valley civilization<sup>32</sup>. The city is gearing up to provide a wide array of tourist activities, from hotels to sports complexes and eco-tourism destinations. Nature lovers and animal aficionados can find a peaceful haven in the region's stunning natural surroundings, which include the Velavadar Blackbuck National Park and picturesque vistas. Many

<sup>27</sup> ‘Gujarat Elections: Modi’s Dholera Dream Is a Tale of Delay, Progress and Resistance - Hindustan Times’ <<https://www.hindustantimes.com/assembly-elections/gujarat-elections-modi-s-dholera-dream-is-a-tale-of-delay-progress-and-resistance/story-HKH2aY9U8BprFx4u2F1WbP.html>> accessed 21 April 2024.

<sup>28</sup> ‘Dholera SIR Mega Industrial Park’ <<https://www.dholera-smart-city-phase2.com/dholera-industrial-park.php>> accessed 21 April 2024.

<sup>29</sup> ‘Which Companies Are Investing in Dholera SIR? – Invest in India’ <<https://smarcities.video.blog/2023/05/20/which-companies-are-investing-in-dholera-sir/>> accessed 21 April 2024.

<sup>30</sup> ‘Dholera Smart City Gujarat | DMIC Projects | Property Schemes in Dholera SIR’ <<https://www.ctdevelopers.in/>> accessed 21 April 2024.

<sup>31</sup> ‘(17) Discover the Unmatched Potential of Dholera SIR for Real Estate Investment | LinkedIn’ <<https://www.linkedin.com/pulse/discover-unmatched-potential-dholera-sir-real-estate-dholera-u18kf/>> accessed 21 April 2024.

<sup>32</sup> ‘Dholera’s Tourism Potential: Unlocking Hidden Gems and Future Experiences | by Darshan Bhatt | Feb, 2024 | Medium’ <<https://medium.com/@darshan.bhatt32/dholeras-tourism-potential-unlocking-hidden-gems-and-future-experiences-1ed6a75a3665>> accessed 21 April 2024.



cultural and historical monuments, such as the Lothal Archeological Site and the soon-to-be National Maritime Heritage Museum, can be found in Dholera. These locations offer educational opportunities for people of all ages in addition to drawing in history buffs<sup>33</sup> In the SIR region, 228 acres of land have been set aside for tourist and leisure pursuits<sup>34</sup>

### THREATS

- (1) **Political Instability:** Political instability at the centre or the state can either discontinue the project or shake investor confidence. As mentioned earlier, not everyone is of the opinion that DSIR is a step forward towards developed nation. The opposition stands firmly on the farmer's side and has said that if they win elections, the matter will be addressed within a period of one week.
- (2) **Vulnerability:** Natural disaster risks include the possibility of earthquakes or floods, which could destroy infrastructure and interfere with corporate operations.
- (3) **Market Stability:** Global tensions leading to market instability can affect the investor's decision as well as question the feasibility of the project.

## CHAPTER 6: CORPORATE DIRECTIONAL STRATEGY

### 6.1 GROWTH STRATEGY

- (1) **Strategic Infrastructure:** In order to support industrial activity and urban development in Dholera, DICDL gives priority to the development of strategic infrastructure, including as roads, utilities, transportation systems, and digital connection. This entails organizing, funding, and carrying out infrastructure improvements that improve efficiency, accessibility, and connectivity. An essential piece of infrastructure for the development of Dholera's economy and trade is the airport. The Dholera SIR is connected to Ahmedabad, Bhavnagar, and Mumbai via NH 8. In addition to the connections between Bagodra and Bhavnagar and Bagodra and Surendranagar and Radhanpur, Dholera itself has good connectivity with NH 8 (Anand) and 8A (Bagodra)<sup>35</sup>. It is suggested that the port location be connected by road to the Ahmedabad-Bhavnagar highway, which is roughly 11 kilometers away. A port development project was assigned about 2,057 hectares of government land. A rail connection is proposed for Dholera; Tarapur (103 km) is the closest broad gauge station, and Bhavnagar (34 km) is the nearest meter gauge connection<sup>36</sup>
- (2) **Industrial Growth and Investment promotion:** Within Dholera, DICDL assists in the establishment of business clusters, industrial parks, and special economic zones (SEZs) to support a variety of sectors, encourage cooperation, and advance economies of scale. This entails giving industrial investors and renters access to land, utilities, and infrastructure support. Adani Group is planning to invest Rs 80,000 crore in Dholera. They have acquired land in Dholera to build multimodal logistics hubs and logistics parks, enhancing the area's capacity for trade and transportation. Tata Housing, a division of the Tata Group, is actively working on aeronautical and

<sup>33</sup> 'Tourism Prospects in Dholera - Mirrikh Infratech Pvt. Ltd.' <<https://mirrikh.com/tourism-prospects-in-dholera/>> accessed 21 April 2024.

<sup>34</sup> 'Dholera SIR's Hospitality Sector Gets a Boost' <<https://www.pnnewswire.com/in/news-releases/dholera-sirs-hospitality-sector-gets-a-boost-301882072.html>> accessed 21 April 2024.

<sup>35</sup> 'Dholera Location, Road & Rail Connectivity' <<https://www.dholera-smart-city-phase2.com/location-connectivity.php>> accessed 21 April 2024.

<sup>36</sup> 'Dholera SIR: Highly Location Connectivity Region to Other City & State' <<https://www.dholera-smart-city.com/location-connectivity.html>> accessed 21 April 2024.

solar power projects in the Dholera SIR, making use of their experience and well-known brand<sup>37</sup> in order to assist Dholera's sustainable development objectives and add to its infrastructure for renewable energy, Essar Group is investing in the establishment of a solar power plant in the area<sup>38</sup>. With an emphasis on the manufacturing of aluminum products, the Vedanta firm is aggressively building a massive aluminum park in Dholera. DSIR will host the first semiconductor factory to be established in India, according to a Vedanta-Foxconn announcement<sup>39</sup>.

**(3) Environmental Sustainability:** By implementing eco-friendly building standards, renewable energy sources, and eco-friendly behaviors in Dholera, DICDL is dedicated to advancing environmental sustainability. This entails integrating ecological restoration, green space creation, and biodiversity preservation into urban development and planning. In order to limit garbage production, encourage recycling, and lessen environmental contamination in Dholera, DICDL employs waste management techniques. This entails creating recycling facilities, public awareness campaigns, and integrated waste management systems. Dholera Smart City is working to lower its carbon footprint and enhance air quality by supporting eco-friendly mobility choices. Public transit, including as buses, metro trains, and bicycle infrastructure, will be given priority by the city in an effort to encourage citizens to choose eco-friendly commuting methods rather than driving their cars<sup>40</sup>. Carefully woven into the urban fabric, green spaces make up thirty percent of the total area. Water treatment facilities, canal networks, and rainwater collection systems guarantee effective use and low waste. The man-made creek functions as a focal point for collecting and treating water and is aesthetically beautiful as well<sup>41</sup>.

## CHAPTER 7: LITERATURE REVIEW

Sr no.	Nature of Literature	Name of Literature	Review	Research Gap	Intended Research
1.	Research Paper	Dholera Smart City: Urban Infrastructure or Rentier Growth?	This study looks at the Dholera Special Investment Region that is now being developed in Gujarat along the Delhi-Mumbai Industrial Corridor. It examines	This research study discusses the drawbacks of land purchase and pooling. This essay critiques the project and discusses its drawbacks in detail.	This research paper has concentrated more on the project's drawbacks. My study in this field has highlighted

<sup>37</sup> 'Dholera Solar Power Plant | Big Investment in Dholera SIR Project' (n 1).

<sup>38</sup> 'Essar: Essar to Invest \$6.6 Billion in Power, Port Projects in Gujarat - The Economic Times' <<https://economictimes.indiatimes.com/industry/energy/power/essar-to-invest-6-6-billion-in-power-port-projects-in-gujarat/articleshow/105991907.cms?from=mdr>> accessed 21 April 2024.

<sup>39</sup> 'Vedanta-Foxconn Selects Dholera SIR for First Semiconductor Facility in India | Mint' <<https://www.livemint.com/companies/news/vedanta-foxconn-selects-dholera-sir-for-first-semiconductor-facility-in-india-11676937485881.html>> accessed 21 April 2024.

<sup>40</sup> '(17) Dholera Smart City: Championing Sustainability and Eco-Friendliness | LinkedIn' <<https://www.linkedin.com/pulse/dholera-smart-city-championing-sustainability-tatvam-realty-dholera-jcedf/>> accessed 21 April 2024.

<sup>41</sup> 'Dholera's Sustainability Roadmap: Balancing Growth with Green Practices | by Darshan Bhatt | Medium' <<https://medium.com/@darshan.bhatt32/dholeras-sustainability-roadmap-balancing-growth-with-green-practices-067053ce7160>> accessed 21 April 2024.

			<p>the political economics of the area's agrarian society in light of the projected rentier benefits from turning agricultural land into a "smart city." The study contends that the predicted futures that moor the Dholera smart city are precarious and rife with conditions of resistance and overthrow given the low level of interest shown in the project thus far by real estate developers, the stagnant manufacturing investments in the nation, and the ongoing resistance by local residents. It makes the case that the project's "rentier economy" might not be able to satisfy the needs of most locals in terms of development, dispossessing the vast majority of peasants for whom the agrarian economy provides a range of essential livelihood options.</p>	<p>The growth of smart cities, industrialization, and sustainable urbanization are not discussed in the article, though. The progress of the DSIR project and its effects on Gujarat's and India's economy overall are not discussed. Analysis such as SAP, ETOP, and SWOT are not performed.</p>	<p>the project's advantages, offered an environment analysis, and identified the project's drawbacks.</p>
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2.	Research Paper	‘Entrepreneurial urbanization’ in Dholera smart city, Gujarat.	This research examines the adaptation of worldwide smart city models to Gujarat, with a particular emphasis on Dholera. With the goal of addressing development difficulties, it links Dholera's origins to India's post-independence urban planning. Dholera is a representation of Gujarat's transition to an entrepreneurial urbanization strategy, which reflects the state's goal of being a national development model. Local demonstrations are one of the challenges preventing Dholera from developing at a faster pace. The article highlights the inherent problems in Dholera's utopian vision by arguing that its concentration on urbanization as a financial opportunity overlooks social justice considerations.	The research paper doesn't emphasize how various companies are attracting investment and developing the industry. It doesn't discuss the DMIC's and the government's plan. It does not analyze the DSIR project's strength, weakness, opportunities and threats. Furthermore, it ignores the difficulties and debates surrounding the project as well as the difficulties the government has in acquiring land, luring in capital, marketing, establishing infrastructure, reducing delays, etc.	This paper has focused on both positive and negative aspects, but it has omitted important details that my research paper added, such as the identities of current and potential investors, the projects being developed and how many phases they are in, their contribution to the economy, etc.

3.	Research Paper	A Review on Dholera Smart City	In essence, this report offers project details. It discusses the several routes to get to Dholera, such as roads, airports, ports, trains, and metro systems, as well as how and when they were constructed, who was working on them, and what businesses were involved. It also discusses the various stages that the city will go through as it develops. It also provides a history of the project and details how it evolved and became significant.	This research study does not analyze the project; it merely provides information. Furthermore, the material provided is extremely constrained and only covers the history and modes of transit to Dholera. It ignores the area's industrial growth, smart city development, sustainable urbanization, and export-related benefits of the project.	The material that has been supplied in this study report is restricted to the means of transportation to Dholera. My study article has expanded on the topic's depth and added in-depth analysis.
4.	Research Paper	Special investment region: case study of Dholera SIR	This essay makes an effort to comprehend the revolutionary governance model—which was used in the creation of the Dholera Special Investment Region—with regard to exclusive planning techniques and	The project's risks and the criticism expressed by different critics are not examined in this paper. It doesn't address the projects' difficulties. There is no analysis like SAP, SWOT, or ETOP in this project.	My study article adds to the controversy surrounding the project and various analyses such as SAP, SWOT, and ETOP.

			<p>private partnerships. In the creation of the Dholera Special Investment Region, it examines the role of speculation and turning the city into a spectacle. Focusing on the convergence of these expansive theories of governance, it examines how the Special Investment Region Act supports the growth corridor initiative and what part the State plays in the planning and implementation of large-scale initiatives. The global circular economy and urban policies that have brought about a paradigm shift in the design and development of cities in the Neo-Liberal Era are reflected in the greenfield project. It looks into how the SIR Act, 2009 may affect a greenfield project in relation to the right to the city. It makes the case that, in the instance of the Special Investment Region, urbanization is viewed as a result</p>	<p>Furthermore, it makes no mention of the strategies used by the government-formed SPV.</p>	
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			of the revolutionary industrial and economic policies.		
5.	Article	Why Dholera's Farmers Are Resisting Giving Up Their Land For A Shining, Smart City	This article discusses farmers' resistance to the government developing their property for this project. It discusses NITI Aayog's proposal in this regard. It discusses the commodification of land and how it affects people's agrarian livelihoods.	This article does not discuss the benefits of development; instead, it focuses solely on the controversy surrounding land acquisition. It omits to address urbanization, the establishment of new sectors, the growth in exports, and the project's ability to draw in investment.	The benefits of development are covered in my research report. It talks about the development of new industries, the rise in exports, urbanization, and the project's capacity to attract capital.

**CHAPTER 8: RESEARCH METHODOLOGY**

This study looks at the Dholera Special Investment Region (DSIR) in India using a mixed-methods methodology. This indicates that it uses a variety of data sources and analytic techniques.

Secondary Literature Analysis: To get data on DSIR, the study consults already published articles and documents. These consist of scholarly journals, news pieces, industry reports, and government papers.

Industry Reports: These studies shed light on the commercial and economic environment around the project of Dholera Special Investment Region (DSIR). Direct Information from Government Sources: These data contain investment amounts, demographic information, and plans for infrastructure development.

**CHAPTER 9: CONCLUSION**

The Dholera Special Investment Region (DSIR) presents a complicated urban development scenario with both considerable obstacles and promising efforts, according to the inquiry conducted there. The shift by DSIR to an entrepreneurial urbanization model highlights how public policy and private investment work together to promote sustainable urban development and industrial growth. But there are several obstacles in the way, such as disagreements over land acquisition and infrastructure constraints, which could prevent

the project from moving forward. Notwithstanding these obstacles, DSIR is a ray of hope for India's urban development and economic progress. The combination of private sector involvement and governmental backing offers a workable route to achieving challenging development objectives. However, careful consideration must be given to DSIR's growth trajectory's inclusion and sustainability. To conclude, the development journey of DSIR serves as an example of the intricacies present in modern urbanization endeavors. Although the entrepreneurial model is promising, it needs to be supported by strong governmental frameworks that give social justice, environmental protection, and inclusive growth first priority. With the help of focused policy interventions and cooperative stakeholder involvement, DSIR can become a sustainable urban development model, demonstrating India's ability to innovate and advance inclusivity.

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