



Establishment of Facility for Manufacturing of Artificial Jewellery



Gems & Jewellery
Sector
Government of Gujarat



Contents

Project Concept	3
Market Potential	6
Growth Drivers	8
Gujarat - Competitive Advantage	10
Gems & Jewellery Ecosystem in Gujarat	14
Project Information	15
- <i>Project Location</i>	
- <i>Infrastructure Availability/ Connectivity</i>	
- <i>Key Considerations</i>	
Project Financials	19
Approvals & Incentives	21
Key Department Contacts	22

Project Concept

Introduction

In the vibrant tapestry of India's cultural landscape, jewellery has always held a special place. Today, a new chapter is unfolding, as the allure of adornment transcends the realm of precious metals and embraces the artistry of artificial jewellery. Amidst this dynamic shift, Gujarat stands poised to illuminate its path as a leading light in this burgeoning industry.



Fuelled by a remarkable 20% annual growth over the past five years, the Indian artificial jewellery market is poised to reach an astonishing INR 65,000 crores by 2025. This exponential rise reflects a confluence of factors: a young and dynamic population eager to express their individuality, a heightened appreciation for fashion trends, and a growing desire for affordability and versatility. Artificial jewellery seamlessly aligns with these evolving preferences, offering a canvas for boundless creativity and experimentation.

Gujarat, a state renowned for its rich cultural heritage, entrepreneurial spirit, and robust industrial infrastructure, is uniquely positioned to seize this golden opportunity. Imagine a state-of-the-art manufacturing centre nestled within its vibrant heart, where the ingenuity of local artisans seamlessly blends with cutting-edge technology. This vision, far from a mere dream, is a tangible possibility that promises to transform Gujarat into a global epicentre of artificial jewellery excellence.

The state's strategic advantages are compelling:

- ▶ **A Legacy of Craftsmanship:** Generations of artisans have meticulously honed their skills in Gujarat, fostering a deep understanding of design, detail, and the soul of Indian artistry. Their expertise serves as a cornerstone of this venture, ensuring that every piece crafted bears the hallmark of exceptional quality and unparalleled beauty.

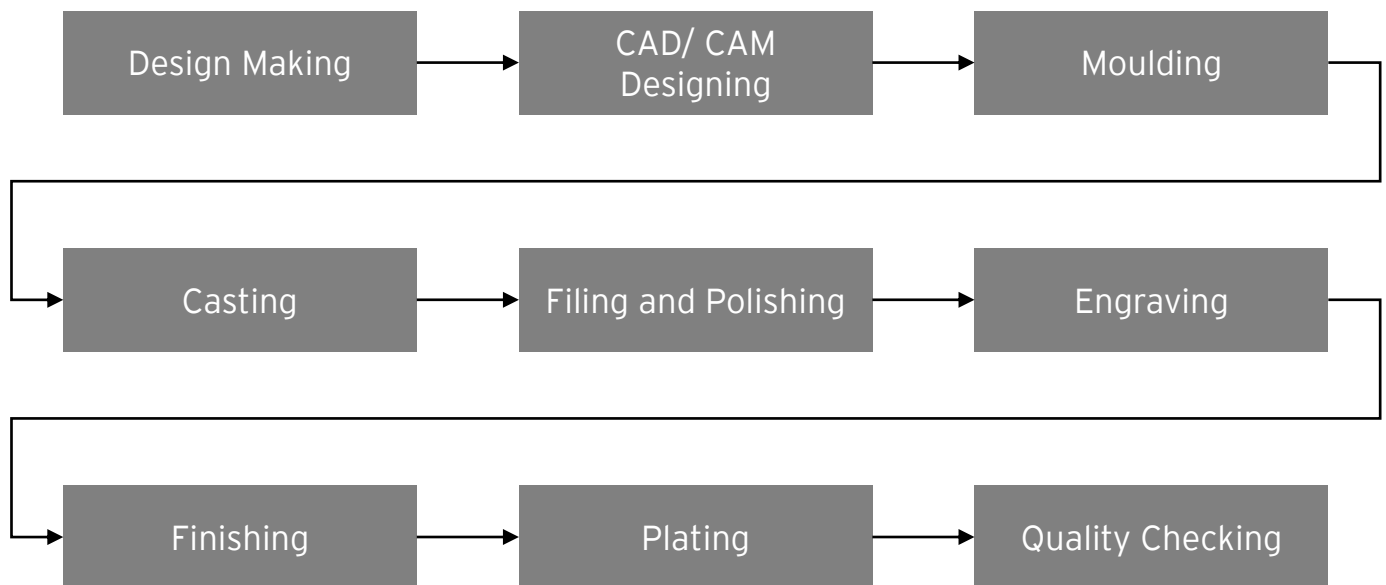
Project Concept

- ▶ **A Thriving Industrial Landscape:** Gujarat boasts a well-established network of industrial zones and efficient logistical infrastructure, ensuring a seamless flow of raw materials and finished products. This robust framework guarantees efficient production cycles, timely deliveries, and minimized disruptions, fostering a conducive environment for business growth.
- ▶ **Abundant Resources at Hand:** Gujarat's strategic location grants it easy access to a wealth of raw materials essential for artificial jewellery production. This proximity significantly reduces reliance on long-distance sourcing, streamlining costs, and bolstering supply chain resilience.

A Tapestry of Inspiration: From the intricate silverwork of Kutch to the vibrant lacquerware of Ahmedabad, Gujarat's diverse artisanal traditions offer a boundless reservoir of creative inspiration. This rich heritage enables the incorporation of unique design elements and traditional motifs, resulting in exquisite creations that stand apart from mass-produced offerings.

The proposed manufacturing centre envisions not only fulfilling the burgeoning domestic demand but also carving a distinguished niche in the global market. Picture handcrafted necklaces from Gujarat adorning fashion enthusiasts in Paris, delicate earrings gracing ears in Milan, and intricately crafted anklets adding rhythm to lives in New York. This is the heart of our ambition - to unveil Gujarat's brilliance to the world, establishing it as a beacon of innovation and artistry in the realm of artificial jewellery.

Artificial Jewellery Manufacturing Process



Project Concept

Value Chain for Artificial Jewellery

Design and Development

This phase involves conceptualizing designs, sketching, and creating prototypes based on market trends, consumer preferences, and innovative ideas. Designers and artisans play a crucial role in this stage.

Sourcing Raw Materials

Procuring raw materials such as base metals, beads, stones, faux gems, and other components essential for jewellery making. Quality and variety in materials are vital for diverse designs.

Manufacturing and Production

This stage encompasses the actual fabrication of jewellery pieces. It involves techniques like casting, moulding, cutting, engraving, and setting stones. Skilled craftsmen and machinery may be utilized for mass production.

Quality Control

Ensuring the finished products meet predefined quality standards through inspections, testing, and evaluation of the materials, components, and final products.

Marketing and Distribution

Promoting the jewellery through various channels like retail stores, online platforms, exhibitions, or direct sales. Effective marketing strategies are employed to reach target demographics.

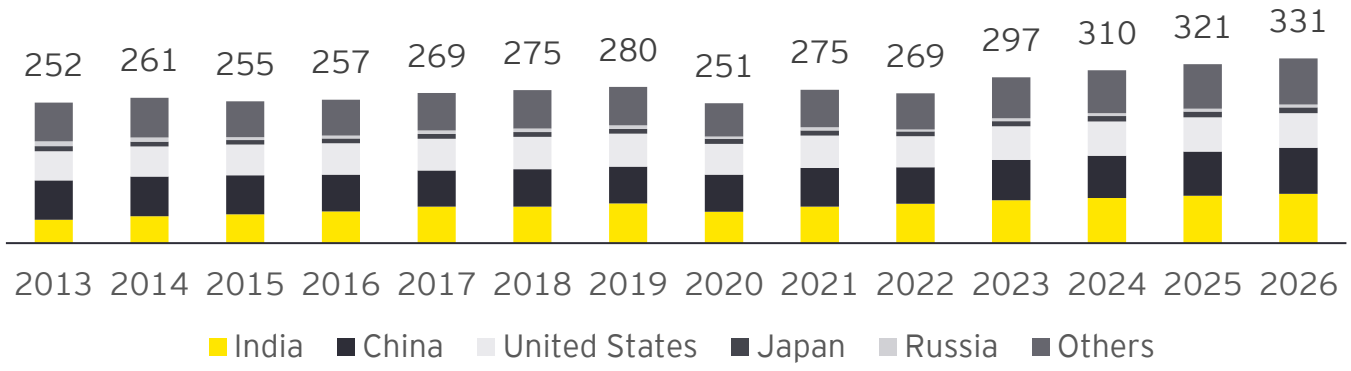
Retail and Sales

The final stage involves selling the jewellery to customers through retail outlets, e-commerce platforms, wholesalers, or distributors. Customer service, packaging, and after-sales support are critical elements here.

Market Potential

Global Gems & Jewellery Market

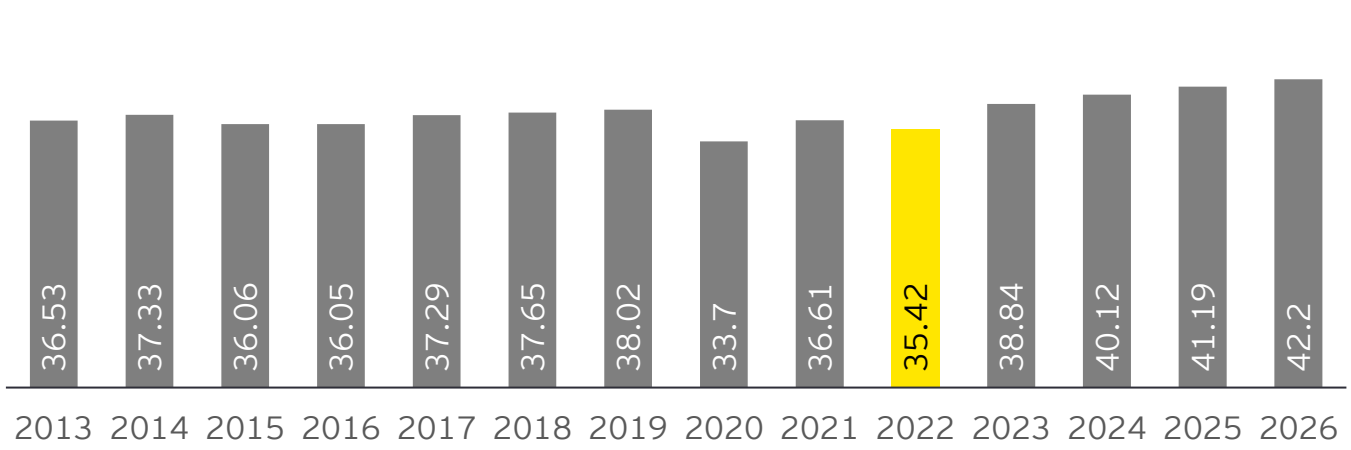
Global market of Gems & Jewellery (in US\$ Bn)



Top 10 countries in terms revenue generation :
 India, China, USA, Japan, Russia, Germany, UK, Italy, France & South Korea

- ▶ The revenue in the Jewellery market worldwide is projected to be valued at US\$298.40 billion in 2022 and is expected to experience an annual growth rate of 3.68%, according to the compound annual growth rate (CAGR) for the period 2023-2026

Average Revenue per Capita (in US\$ Bn)



The global jewellery market steadily increases in average revenue per capita, indicating consistent and sustained consumer demand and market growth

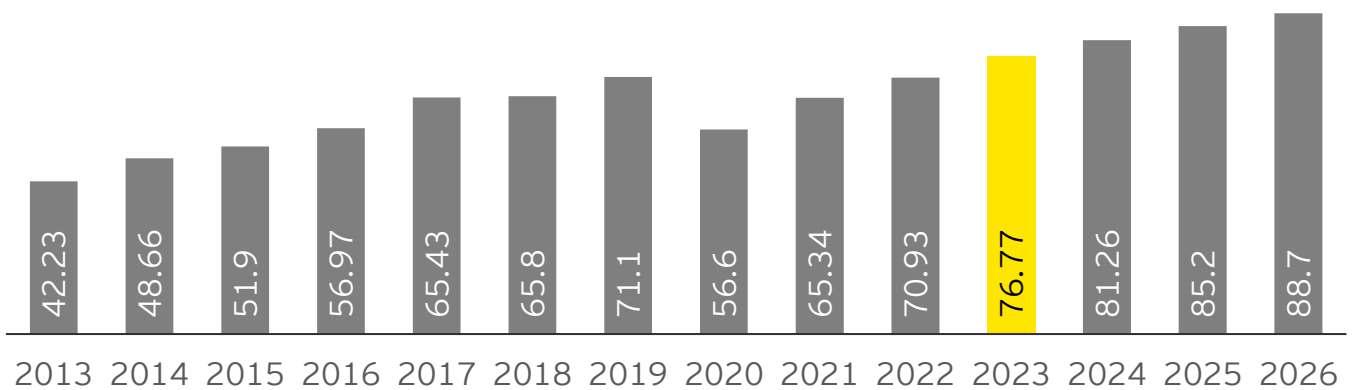
Source: Statista Market Insights

Market Potential

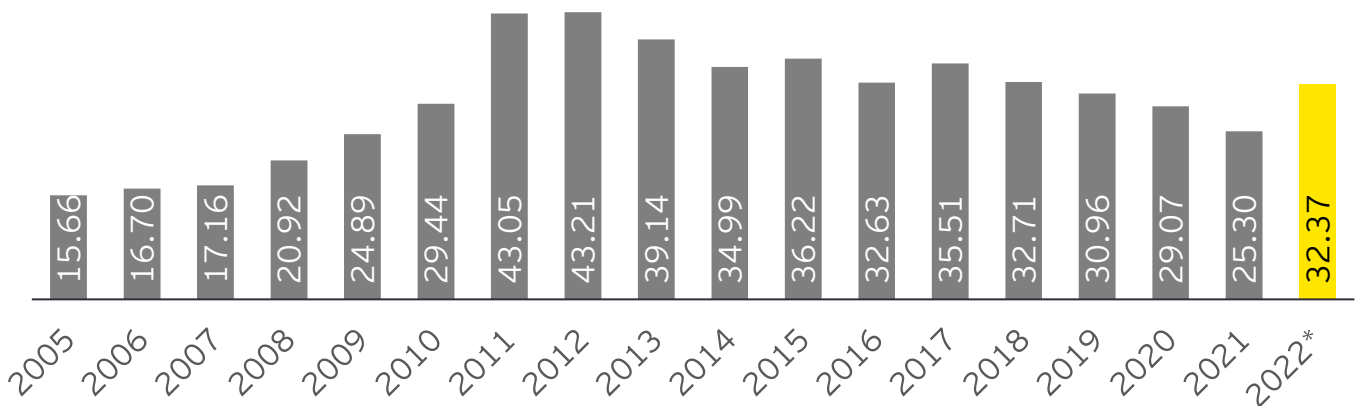
Gems & Jewellery: India scenario

- ▶ In 2023, the revenue in the Jewellery market in India is projected to reach a staggering amount of US\$76.77 Bn
- ▶ It is worth noting that this market is expected to witness annual growth of 4.93% from 2023 to 2026, according to the compound annual growth rate (CAGR)

Revenue of Gems & Jewellery in India (in US\$ Bn)



Export Value of Gems and Jewellery from India (in US\$ Bn)



- ▶ The export value of gems and jewellery across India was estimated to be approximately US\$32.4 billion as of January 2022, up from around US\$25.3 billion in financial year 2021. The export value of gems and jewellery has fluctuated over the years, peaking at some US\$43.2 billion in FY 2012.

Source: Statista Market Insights

Growth Drivers

Cost and time efficiency

- ▶ Rapid prototyping offers a swifter and more cost-effective approach to building prototypes compared to traditional methods.
- ▶ Manufacturing time for intricate parts is reduced from days, weeks, or months to mere hours through rapid prototyping, especially benefiting prototype tooling and part production.

Quality enhancement

- ▶ Customization in rapid prototyping comes at no extra cost or the need for special tools, allowing tailored designs based on individual requirements.
- ▶ Rapid prototyping aids in identifying faults and usability issues during the process, enabling the production of high-quality jewellery with minimal design flaws.

Waste reduction

- ▶ Unlike subtractive manufacturing, rapid prototyping minimizes wasted materials by applying model material only where necessary, sometimes requiring supportive structures for overhanging geometry.

Growth Drivers

Design influencing customer decision making

- ▶ Customers have started to become brand conscious and give importance to the design of the jewellery while making a buying decision.
- ▶ The design of the piece is given importance by 64% women while selecting a diamond jewellery. Companies are thus emphasizing on not just the quality of the jewellery but also its design

Technology oriented

- ▶ A significant portion of Chinese and American women research designs online before making jewellery purchases.
- ▶ In India, 12% of female consumers use the internet to pre-select designs or gather information about diamond jewellery, prompting jewellers to continually innovate designs to remain competitive.



Gujarat - Competitive Advantage

Gujarat overview

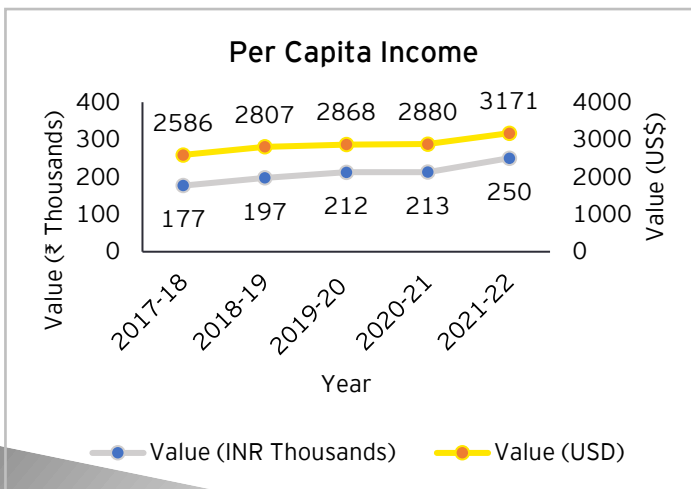
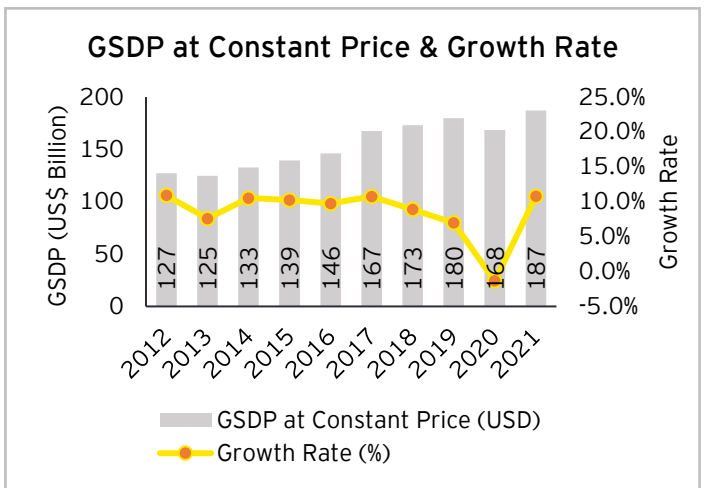
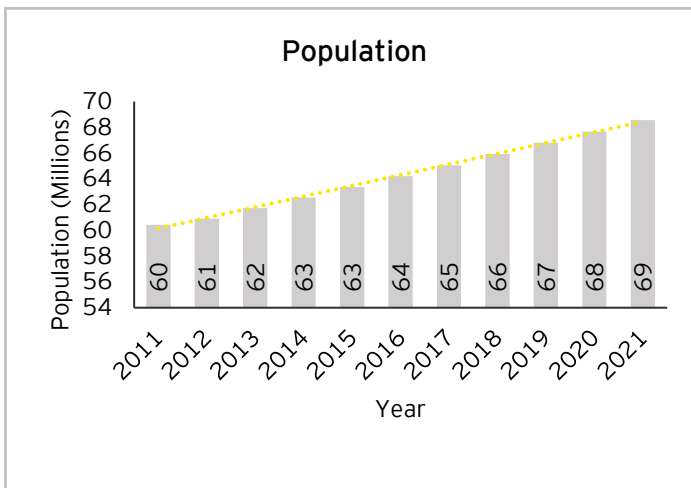
- ▶ 9% of India's GDP: GSDP at current price ~US\$ 269 Bn
- ▶ 35% share of manufacturing sector in State's GDP
- ▶ 18% of India's industrial output

6% of India's geographical area
And 5% of India's population

- ▶ 30% share in India's total exports
- ▶ 40% cargo of the entire country is handled by Gujarat Ports
- ▶ Huge base of MSMEs (~830,000)

Gujarat has strong presence of industries such as Chemicals & Petrochem, Textiles, Pharmaceuticals, Automobiles, Gems & Jewellery, Ceramics, etc.

Macroeconomic trend



Industrial Production Data

Gujarat enjoys the status of industrially developed state of India with its 18.14% share to Country's industrial output, the largest among the states of India in the year 2019-20. The Net Value Added (NVA) has increased from ₹8,944.8 billion in 2010-11 to ₹1,902.57 billion in 2019-20. As per Annual Survey of Industries, the number of factories has increased from 26,842 in the year 2018-19 to 28,479 in the year 2019-20, showing a growth of 6.10% over the previous year.

Source: CEIC; <https://gujcostat.gujarat.gov.in/>

Gujarat - Competitive Advantage

Key advantages

Ease of doing business



Ranked among the top achievers in 'Ease of Doing Business' ranking 2020



1st Rank in Logistics Performance Index (LEADS Index) in 2018, 2019, 2021 & 2022



1st Rank in NITI Aayog's Export Preparedness Index of states - 2020 & 2021



1st Rank in Good Governance Index (GGI) in 2021



Ranked among the top achiever state in 'Ease of Doing Business' ranking 2020



National Start-Up Rankings in 2021 (Start-Up Megastars), 2019 and 2018



Top performer by labour force participation rate and minimum man-days lost due to labour unrest

Talent pool

Gujarat has emerged as one of the top states in India with excellent infrastructure for technical education. The state currently has 350+ engineering colleges, 41 polytechnics and 770+ Industrial Training Institutes (ITI) inculcating quality education. The government through its Gujarat Skill Development Mission is also providing training courses to the youth and making them industry ready.

11

Institutes of National Importance

116

Graduate & **60** Post Graduate Colleges

33,000+

Trained technical professionals annually

113

diploma courses

41,000+

Trained Diploma professionals annually

Gujarat - Competitive Advantage

Infrastructure & connectivity



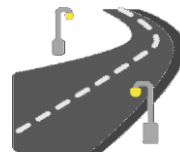
Longest coastline
1,600 km
48 seaports



5,300 km
Railway
network



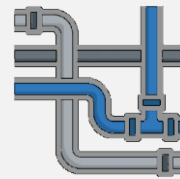
19 Airports
(including
4 intl. airports)
*Upcoming airport at
Dholera SIR*



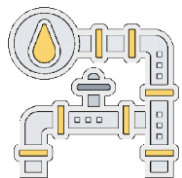
75,000+ km of road
network
7,873 km of national
highways



Power surplus State
48 GW total capacity
44% from renewables



Statewide water
network
62,778 km Narmada
Canal
120,000 km
distribution



1st statewide
extensive
piped natural gas
grid - 3,370 km
network



Ahmedabad-Mumbai
semi-highspeed rail
Bullet train
(*upcoming*)



Delhi-Mumbai
Industrial corridor -
DMIC covering 23/33
districts



239 GIDC
Industrial estates
with
Plug & play facility



1st Global
Business District
- GIFT City

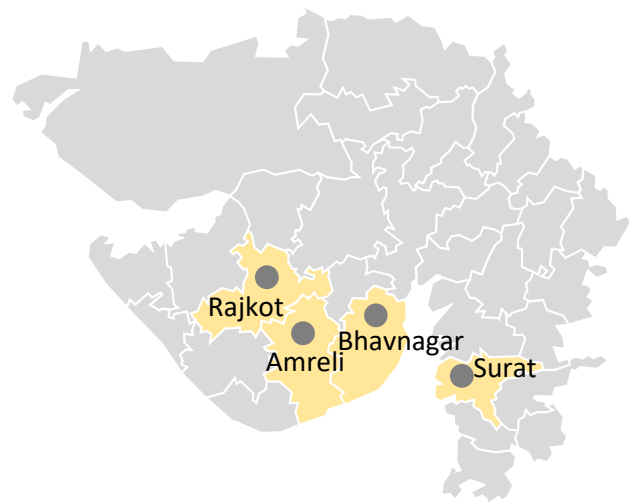


1st Platinum rated
Green industrial city
- Dholera Semicon
City

Gems & Jewellery Ecosystem in Gujarat

Existing diamond manufacturing ecosystem

- ▶ The NCAER survey data reveals that, in 2019, there were a total of 9.89 lakh units and 42.89 lakh workers in the G&J sector in India.
- ▶ Gujarat has the lowest level of employment of just 3.58% in rural areas.
- ▶ As compared to an average employment of 4.3 workers per unit in this sector, the Gujarat region has the maximum average of 12.82 workers per unit
- ▶ Gujarat accounted for the maximum level of formal employment, with the proportion of employees on the payroll in the G&J sector being as high as 90.15%. The region has 9.35% of unpaid family members and proprietors only.
- ▶ In Gujarat, more than 80% input in the manufacturing units for making diamond studded jewellery is acquired from the wholesalers and is sold directly to the consumers.
- ▶ Rajkot, Surat, Vadodara, and Bhavnagar were the four major clusters for manufacturing of gems and jewellery in the Gujarat region.
- ▶ The Gems and Jewellery industry in Surat is the spinal cord of its economy. Surat is a hub of Polished Diamonds and Diamond Cuttings units globally. The Gems and Jewellery Industry in the district employs more than nine lakh people, engaging almost 1,000 small, medium, and large-scale units are



Indicators	Status in Gujarat (till Oct 2020)
Number of Units	74,908
Number of workers	9,59,954
Value of Output (₹ Crore)	77,715
Value Added (₹ Crore)	15,432
Share in value added	16.1%

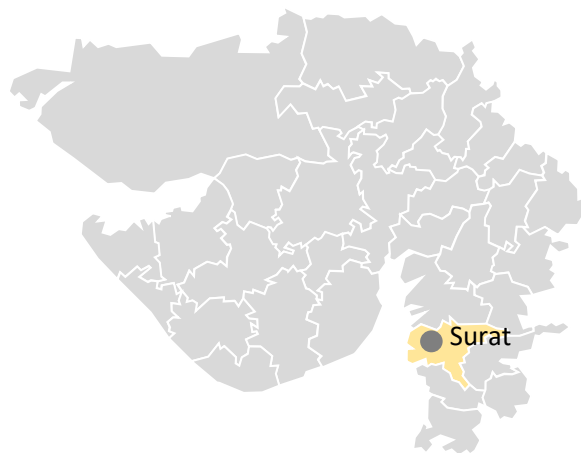
Source: Cluster Mapping Report of the G&J Sector in India, October 2020

Gems & Jewellery Ecosystem in Gujarat



Jewellery manufacturing at Surat

- ▶ Surat, known as the heart of India's diamond manufacturing and processing, is gradually expanding its jewellery production facilities.
- ▶ With government backing, a Special Economic Zone in Surat houses over 175 operational companies, serving industries like diamonds, jewellery, textiles, and chemicals.
- ▶ Positioned near the Hazira port and boasting a well-established transportation network, the city emerges as an appealing destination for investors and manufacturers.



Gems and Jewellery park at Surat

- ▶ The Gems & Jewellery Park in Ichchhapore, Surat is an ambitious initiative spearheaded by Gujarat Hira Bourse (GHB).
- ▶ Encompassing an extensive 100-hectare area, the park aims to incorporate a sophisticated convention center, trading facilities, and comprehensive infrastructure such as roads, electricity, and water supply networks.
- ▶ The Ichchhapore Park, announced in 2004, is slated for the development of an exclusive Vertical Gems & Jewellery Park. This specialized park is tailored to specifically support and enhance the gems and jewellery sector's growth.
- ▶ GHB's investment in the project has amounted to nearly ₹ 200 crore. Presently, the park has the foundational infrastructure in place, with seven units currently undergoing construction.
- ▶ Approximately 350 jewellery manufacturing and diamond processing companies have invested in plots within this dedicated park. Their investment showcases a strong commitment to establishing manufacturing units within this strategic location.



Project Information

Gujarat Hira Bourse (GHB)

- ▶ **Infrastructure:** The GHB project is spread across 100 hectares of land and houses a hi-tech convention centre, trading centre, and all relevant infrastructure facilities like roads, electric system, water supply network, etc.
- ▶ **Location:** The GHB is located at Ichchhapore, Surat, which has traditionally been the headquarters of the Diamond polishing, trading, and export industry in Gujarat.
- ▶ **Facilities:** The GHB provides world-class infrastructure facilities available in the huge open space in the lap of nature. These include all relevant infrastructure facilities like roads, electric system, water supply network, etc.
- ▶ **Connectivity:** The GHB provides continuous connectivity with the public transport facility of the city. There is a proposed planning of special BRTS bus facility for the Workers of the Park.
- ▶ **Additional Facilities:** There is a proposed planning of common hostel facility for Diamond Workers. A Rough Diamond Trading centre of mining companies will be operational soon.

Source: *Gujarat Hira Bourse* (<http://www.gujarathirabourse.org/>)

Surat Special Economic Zone (SuRSEZ)

- ▶ Manufacturers setting up units at Surat SEZ are eligible for various incentives from the Central and State Government
- ▶ SuRSEZ enjoys excellent location which is a vital input for industrial activity. It is located just 14 Kms from the heart of Surat city and lies adjacent to the Mumbai-Ahmedabad Road and Rail routes
- ▶ It has over 250 units representing various industry segments including, jewellery making, diamond processing, engineering, textiles, textile machinery, pharmaceuticals and so on
- ▶ About 80 of the 250 units are occupied by various national and international manufacturers, traders and exporters of diamonds and diamond jewellery
- ▶ These units are flourishing due to the locational benefits, cost effectiveness, peaceful environment, competent labour force available in abundance for all industrial sectors and superior infrastructure provided in the Zone.

Source: *SURAT SPECIAL ECONOMIC ZONE* (sursez.com)

Project Information

Indian Diamond Institute, Surat

- ▶ Indian Diamond Institute is established in Surat, Gujarat which provides Educational and Training programs, promotes Technology and Innovation in Diamond, Gems & Jewellery sector.
- ▶ It is the only institute in Gems & Jewellery field offering Educational & Gemmological Laboratory services through its campuses at Katargam and Vesu, Surat.

Programs and Certifications

Courses	Details	Degree/Certifications
Diamond Programs	Manufacturing of Diamonds Diamond planning with Laser 4P Grading and Polishing.	<ul style="list-style-type: none"> ▶ Diploma Program ▶ Certificate Program
Jewellery Programs	Jewellery manufacturing (Manual and CAD-Matrix), Metallurgy.	<ul style="list-style-type: none"> ▶ Bachelor Program ▶ Diploma Program ▶ Certificate Program ▶ Graduate Program
Gemmology	Gem Identification, Groups and species classification of inorganic gems.	<ul style="list-style-type: none"> ▶ Diploma Program ▶ Certificate Program

Source: Indian Diamond Institute <https://diamondinstitute.net/>

Collaborations

- ▶ Natural Diamond Council (formerly known as Diamond Producers Association) forged a strategic partnership with leading diamond manufacturers, creating opportunities for natural diamonds
- ▶ NDC also collaborated with television series 'Made in Heaven' to promote diamond jewellery brands

Project Information

Infrastructure & connectivity



- ▶ Magdalla & Hazira Ports are the two ports in Surat which has good rail and road connectivity.
- ▶ Hazira Port in Surat has close proximity to the high speed dual carriageway which is under construction. The port is also well connected with main Mumbai - Ahmedabad - Delhi broad gauge railway line.



- ▶ Surat is connected with other districts of the state such as Rajkot, Vadodara and Ahmedabad by rail
- ▶ Hazira port is ~16 kms away from Surat railway station



- ▶ Surat domestic airport as daily flights to major destinations like Delhi, Hyderabad, Kolkata, Pune, Jaipur etc.
- ▶ It also has a domestic cargo terminal in operation since January 2020
- ▶ Surat recently received the status of International airport with regular direct flights to Dubai. Flight connectivity to Hongkong is also proposed



- ▶ The city is connected to Delhi Mumbai Industrial Corridor (DMIC) which links Ahmedabad, Vadodara and Surat.
- ▶ Proximity to NH-8 and NH-6 further enhances connectivity in the city.



The main source for the power supply is Torrent Power Limited in Surat and State DISCOMs.



Water for industrial purposes can be obtained from four sources viz. Gujarat Water Supply and Sewerage Board (GWSSB), an irrigation canal, dams, and surface reservoirs

Project Information

Key Considerations



High Dependence on workers

- ▶ The jewellery manufacturing and gemstone polishing sectors rely significantly on the expertise of skilled artisans to create personalized designs, prioritizing craftsmanship over machine-driven mass production.
- ▶ An ensuing challenge involves upgrading the skills of traditional artisans to embrace new technology, attain certifications, while preserving their inherent traditional expertise and artistic finesse.



Quality and Technological Advancement

- ▶ Ensuring the quality of the polished diamond and technological advancement based on international standards is a significant.
- ▶ Technologies like lasers, CAD, 3D printing, and AI-enabled designers are being used to give form to unique shapes and geometries.



Global Competitive environment

- ▶ India's jewellery market stands at a value of US\$76.77 billion, exhibiting a growth rate of 4.93% from 2023 to 2026.
- ▶ China, the world's second-largest diamond processing centre after India, poses significant competition to India. Its adeptness in swiftly adopting technology has empowered China to manufacture diamonds at a competitive price.

Project Financials

Project Components

- ▶ Brass Melting machine
- ▶ Casting Facility
- ▶ Cutting Facility
- ▶ Engraving Machine
- ▶ Polishing Accessories
- ▶ Casting Rubber Moulds

Land Cost

- ▶ The land in the proposed locations can be purchased or taken on long term lease.

Machinery Cost

Particulars	Qty.	Amt. (₹ in Lakhs)
Brass Melting Furnace	2	17
Jewellery Casting Machine	10	13.6
Cutting Machine	5	9.5
Jewellery Engraving Machine	15	33.75
Toolset for Craftsmen	20	0.3
Polishing Accessories	15	0.1
Hand Tools (Hammer Set)	20	0.23
Magnifying Glass	20	0.23
Casting Rubber Moulds	1,500	5.775
Total		80.75



Project Financials

Total Project Cost

Particulars	Amt. (₹ in Lakhs)
Land cost	152
Civil works and Buildings (3000 sq. ft. @3000/-)	90
Plant and machinery(Annexure)	81
Misc. Fixed Assets	3
D G Set 50 KV	6
Escalation & Contingencies	9
Preliminary & Pre-Operative Expenses	9
Total Project Cost	350

Incentives

Atmanirbhar Gujarat Scheme 2022

Government of Gujarat launched **Atmanirbhar Gujarat Scheme 2022 for assistance to Industries** in 2022. The state is also offering incentives for the development of project related infrastructure as a part of the project. Thus, **units establishing their industries will be able to avail benefits under the Atmanirbhar Policy.**

The incentives provided by the government are as follows:

Particular	Atmanirbhar Gujarat Scheme for SME's
Interest Subsidy	<p>Category 1: @7% on Term Loan with maximum amount of ₹ 35 Lakhs per annum for a period of 7 years</p> <p>Category 2: @6% on Term Loan with maximum amount of ₹ 30 Lakhs per annum for a period of 6 years</p> <p>Category 3: @5% on Term Loan with maximum amount of ₹ 25 Lakhs per annum for a period of 5 years</p>
Net SGST	<p>Category 1: 100% of net SGST for 10 years upto 7.5% of eFCI p.a.</p> <p>Category 2: 90% of net SGST for 10 years upto 6.5% of eFCI p.a.</p> <p>Category 3: 80% of net SGST for 10 years upto 5% of eFCI p.a.</p>
EPF Reimbursement	<p>100% reimbursement of employer contribution of EPF upto 12% of basic pay or upto ₹ 1,800 per month per employee, whichever is less, for a period of 10 years.</p>
Electricity Duty	100% for 5 years
Other Incentives	<p>MSMEs will continue to get the incentive components as defined in Gujarat Industrial Policy 2020 like Quality Certificate, ERP, IT, Software/ Hardware, Patent Registration, Water/Power Consumption Audit, Technology Purchase, Utility connection charges</p>

Approvals through IFP Portal

The Investment Facilitation Portal is the online single point interface of the Government of Gujarat to facilitate investors. It facilitates the online filing of all required forms, online payments, downloading online certificates. Licenses and a grievance redressal mechanism.

For more details: <https://www.ifp.gujarat.gov.in/>

Source: <https://cmogujarat.gov.in/en/portfolio/aatmanirbhar-gujarat-2022-industries-assistance/>

Key Department Contacts

Relevant departments and useful links



**Industries & Mines
Department
Government of Gujarat**



**Industries
Commissionerate
Govt. Of Gujarat**

Department of Industries & Mine, Gujarat
<https://imd.gujarat.gov.in/>

Industries Commissionerate, Gujarat
<https://ic.gujarat.gov.in/>



GIDC
<https://gidc.gujarat.gov.in>



IndexTb
<https://indextb.com>



Investor Facilitation Portal
<https://ifp.gujarat.gov.in>

This project profile is based on preliminary study to facilitate prospective entrepreneurs to assess a prima facie scope. It is, however, advisable to get a detailed feasibility study prepared before taking a final investment decision.



Industries Commissionerate

Block No. 1, 2nd Floor, Udyog Bhavan, Gandhinagar - 382010

Phone: 23252683/23252617

E-mail: iccord@gujarat.gov.in

Website: <https://ic.gujarat.gov.in/>

Twitter: <https://twitter.com/icgujarat>

iNDEXTb
INDUSTRIAL EXTENSION BUREAU
(A GOVT. OF GUJARAT ORGANISATION)
ISO 9001 : 2015 Certified

Block No.18, 2nd Floor, Udyog Bhawan
GH-4, Sector 11, Gandhinagar - 382010
Gujarat, INDIA
+91-79-23256009, 23250492/93
+91-79-23250490
indextb@indextb.com
www.indextb.com