STATUS QUO AND OUTLOOK 2022:
INDIAN CERAMICS INDUSTRY
STATUS QUO AND OUTLOOK 2022: INDIAN CERAMICS INDUSTRY

Market study by EAC International Consulting on behalf of Messe Muenchen India
March 2018
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• Ceramic Industry Overview
• Transparency on Ceramic Clusters in India
• Government Initiatives and Plans for Ceramic Industry
• EAC Introduction
The ceramic industry came into existence about a century ago and has matured over time to form an industrial base. Over the years, the industry has been modernizing through new innovations in product profile, quality and design to emerge as a modern, world-class industry, ready to take on global competition.

Though there are a number of large companies in the ceramics sector, small and medium enterprises (SMEs) account for more than 50% of the total market in India.

The Rs 26,500-crore ceramic tiles industry in India is set to witness nearly 9 per cent growth in demand this year, higher than the 3-5 per cent growth recorded last year. Initiatives such as Swachh Bharat Abhiyan (SBA), building of smart cities, development of industrial corridors and housing for all schemes will drive the growth in the near future.

Lured by the demographic profile and improving prospects of housing and construction sector, many foreign companies are entering the Indian ceramics sector with a view to leverage the opportunity.

This market research report is an initiative of Messe Muenchen India to provide insights into Indian Ceramics industry, regulatory bodies and upcoming Government initiatives including the potential growth highlighting the various national and international opportunities in the sector. We are immensely grateful to the industry leaders who participated in our market research and thank EAC International Consulting for presenting a comprehensive perspective on the market.
Dear Reader,

EAC is honoured to be the Knowledge Partner of Messe Muenchen India Ceramics - 2018. EAC is glad to present ‘Indian Ceramics Industry– Status Quo and Outlook’ to the participants of Indian Ceramics wherein the key intent has been to provide holistic perspective about ceramics market.

The report covers insights on ceramics market status-quo, transparency on the clusters as well as the key challenges. It also elaborates role of Government in terms of policies and initiatives to support the industry.

As part of this study, we have researched and analysed qualitative and quantitative information on ceramics industry through exhaustive secondary and select primary research. EAC experts from the respective domain know-how have contributed their experience as well as utilized their network and experience to enrich the content of the paper.

We believe that the insights will be helpful for the industry stakeholders to gain understanding on Indian Ceramics Industry, identify opportunities in India and it will aid in informed decision-making.
EAC- Euro Asia Consulting is a privately-owned Management Consulting firm supporting mid-cap and multinational companies to capture growth opportunities and master challenges in emerging markets. EAC offers holistic consulting solutions covering development and execution of growth strategies, M&A advisory and operational excellence.

Our in-depth industry experiences and a track record of successful projects in major growth sectors guarantee “best practice” sharing with our clients across industry segments such as Mobility, Industrials, Infrastructure, Environment, Chemicals, Healthcare, Consumer Goods and Advanced Technologies; with functional competencies in Strategy, M&A, and Operational Excellence to develop strategies and pragmatic solutions for our clients.

For the second year running, EAC has been made Knowledge Partner for Embassy of India, Berlin’s Make in India Mittelstand (MIIM) programme.

MIIM is a unique integrated platform for market entry services that combines services rendered by government, not-for-profit and private entities. It is truly a one-stop source for companies requiring market entry support services with the additional benefits of special workshops, networking, information exchange etc.

MIIM programme offers a wide range of business support services under a single platform. Services include strategy consulting, M&A, operational market entry support, tax & legal support, financial services, project financing, location services, technology collaboration, facilitation of approvals from central & state agencies and access to government agencies.
As part of its international expansion strategy, Messe Muenchen India founded its wholly owned subsidy with a registered office in Mumbai in September 2007. Messe Muenchen India is one of the leading organizer of trade fairs in India with a vast portfolio of B2B events such as analytica Anacon India, BAUMA CONEXPO India, drink technology India, electronica India, IFAT India, Intersolar India, India Lab Expo, Indian Ceramics, LASER World of PHOTONICS INDIA and productronica India.

Messe Muenchen India works closely with industry stakeholders to deliver well researched and professional trade fairs keeping in mind the priorities of the customers. With its head office in Mumbai and regional representation in New Delhi, Bengaluru and Chennai, Messe Muenchen India bring professionals from across sectors together for business, learning and networking opportunities.

With 10 subsidiaries in Europe and in Asia, and over 60 foreign representatives covering more than 100 countries, Messe München has a network that spans the globe.

Worldwide, more than 30,000 exhibitors from over 100 countries and more than two million visitors from over 200 countries participate in fairs and exhibitions in Munich each year. In addition, Messe München organizes trade fairs in Europe, Asia, Russia, the Middle East and South America.
CERAMIC INDUSTRY OVERVIEW
CERAMIC INDUSTRY SNAPSHOT – STATUS QUO AND OUTLOOK

Indian ceramic industry is dominated by ceramic tiles industry, with market of 4.9 bln EUR in 2017; overall ceramic industry expected to grow at ~9% CAGR to become ~7.5 bln EUR by 2022

### Ceramic Industry Segmentation

- **Market Size, bln EUR**
  - **Tiles**: 77.9% in 2017, 73.6% in 2022E
  - **Sanitaryware**: 11.5% in 2017, 15.0% in 2022E
  - **Tableware**: 7.6% in 2017, 8.4% in 2022E
  - **Technical ceramics**: 4.9% in 2017, 7.5% in 2022E

### Characteristics

- India is 2nd largest ceramic tiles producer in the world, accounting for 7% (~955 mio sqm) of the global production
  - Increasing housing demand accounts to 70% of the total tiles demand in India
- Rising domestic consumption and exports to drive the ceramics industry
  - Major Export markets: Middle East and Europe
  - 20% of the total ceramics export is shipped to Saudi Arabia
- Growth in real estate market, upcoming govt. initiatives for low cost housing along with Swachh Bharat programme to push the demand for sanitary ware from ~12% to 15%
- Tableware category being largely unorganized and under penetrated shows great potential- reason being demand for better lifestyle and increased spending on designed products
- Technical ceramics market in India is currently at a nascent stage
  - Industry Players: Sonya Ceramics, Jyoti Ceramic
APPLICATION OVERVIEW – CERAMIC TILE INDUSTRY

Indian Ceramic tile industry size is 3.8 bln EUR with installed capacity of 955 mio sq.m; Ceramic tile industry dominated by 16 organized players in terms of value.

- 2nd largest producer and consumer of tiles in the world
- Morbi, a small industrial town near Rajkot, is the second largest tiles manufacturing cluster in the world
  - Accounts for ~90% of total production of ceramic products in India
  - Morbi to see a growth of 30-40% in exports due to growing demand from overseas countries

1) Swastic Marbomar, Bell Granito, Murudeshwar Ceramics, Orient Bell Ceramics, Simpolo Varmora, Sun Heart and RAK Ceramics
GROWTH DRIVERS – CERAMICS TILES INDUSTRY

Various government initiatives for infrastructure development and favorable demographics expected to drive ceramics, sanitary ware and bathroom fittings industry in future.

- **SWACHH BHARAT ABHIYAN (SBA)**
  - ‘Swachh Bharat Abhiyaan’ targets to build 6 crore toilets across the country by 2019
  - Aims to make India open defecation free to drive demand for tiles and sanitary ware

- **DEVELOPMENT OF 100 SMART CITIES**
  - Government mission to develop 100 smart cities by 2020 to accelerate urbanization, improve the quality of life and attract investment
  - Development of physical, institutional, social and economic infrastructure

- **HOUSING FOR ALL BY 2022**
  - 4041 statutory towns with focus on 500 class I cities providing 110 houses

- **RURAL HOUSING FUND UNDER NATIONAL HOUSING BOARD (NHB)**
  - Financial assistance to the weaker sections of the society living in towns with ↓50,000 population

- **FAVOURABLE DEMOGRAPHICS AND DISPOSABLE INCOME**
  - As per United Nation’s forecast India to become most populous country in 2022 with majority of the population in the working age group
  - Higher disposable income and low dependency rate expected to fuel consumption

Government’s focus on infrastructure development expected to result in driving demand for Indian ceramics, sanitary ware and bathroom fittings industry.
## TECHNOLOGY TRENDS IN CERAMIC TILES INDUSTRY

Nano technology, 3-D printing, large size tiles and double vitrified tiles are identified as ongoing trends in the Indian ceramic tiles manufacturing.

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>Description</th>
</tr>
</thead>
</table>
| **NANO TECHNOLOGY** | - Nanotechnology preferred due to properties like dirt and bacteria resistant which enhances shelf life and strength of the tile; Used majorly floor tiles manufacturing  
                       - Increasing usage in hospitals, laboratories, food processing plants due to hygiene requirement |
| **3-D PRINTING**    | - Tiles are becoming style statement and increasing usage in bedrooms and living rooms as well; Used majorly for wall tiles manufacturing  
                       - Increased application in outdoor cladding, wall cladding and elevation                                                               |
| **LARGE SIZE TILES**| - Latest technology used in machinery for producing large format panels and slabs brings financial and technological benefits  
                       - Other benefits include size flexibility, variable thickness, higher productivity due to increased cycles/hour |
| **DOUBLE CHARGE VITRIFIED TILES** | - Double charge vitrified tiles press feeds two colours on the tiles bisque and makes a thick layer of design, therefore such design layer becomes 3 to 4 mm thicker  
                       - Ideal choice for heavy traffic commercial projects                                                                 |
Indian sanitary ware market estimated to be ~560 mio EUR in 2017; Basic segment is dominated by unorganized players whereas standard, premium and luxury segment dominated by organized players.

<table>
<thead>
<tr>
<th>Segment</th>
<th>BASIC</th>
<th>STANDARD</th>
<th>PREMIUM</th>
<th>LUXURY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Size, 2017 (mio EUR)</td>
<td>188</td>
<td>188</td>
<td>125</td>
<td>56</td>
</tr>
<tr>
<td>Market Structure</td>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
<td><img src="image3.png" alt="Graph" /></td>
<td><img src="image4.png" alt="Graph" /></td>
</tr>
<tr>
<td>Market Players</td>
<td><img src="image5.png" alt="Unorganized Players" /></td>
<td><img src="image6.png" alt="Organized Players" /></td>
<td><img src="image7.png" alt="Organized Players" /></td>
<td><img src="image8.png" alt="Organized Players" /></td>
</tr>
<tr>
<td>Competitive Intensity</td>
<td><img src="image9.png" alt="High to Low" /></td>
<td><img src="image10.png" alt="High to Low" /></td>
<td><img src="image11.png" alt="High to Low" /></td>
<td><img src="image12.png" alt="High to Low" /></td>
</tr>
<tr>
<td>~150 unorganized units</td>
<td>3 large organized companies</td>
<td>Organized as well as MNC companies</td>
<td>Organized as well as MNC companies</td>
<td></td>
</tr>
</tbody>
</table>
KEY CHALLENGES – CERAMIC INDUSTRY

Ceramic clusters across India confront challenges with regards to raw material availability, environmental issues, social issues, products dumping from China and energy availability.

<table>
<thead>
<tr>
<th>RAW MATERIAL</th>
<th>ENVIRONMENTAL ISSUES</th>
<th>SOCIAL ISSUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of availability of high-standard raw materials at reasonable costs</td>
<td>Issue related to air pollution, waste water and solid waste</td>
<td>Lack of skilled manpower</td>
</tr>
<tr>
<td>Rising raw material costs</td>
<td>Low awareness regarding environment friendly working conditions</td>
<td>Workers are prone to high risk of developing silicosis and silico tuberculosis during their working life span</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHEAP IMPORTS FROM CHINA</th>
<th>ENERGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant increase in volume of dumped imports of Vitrified tiles from China at 25% below normal value</td>
<td>Lack of reliable power supply</td>
</tr>
<tr>
<td></td>
<td>High fuel cost and no availability of clean fuel at cheaper rate</td>
</tr>
</tbody>
</table>
TRANSPARENCY ON CERAMIC CLUSTERS IN INDIA
OVERVIEW –
CERAMIC CLUSTERS IN INDIA

Even though ceramic clusters are present across different states in India, Morbi region in Gujarat alone accounts for ~90% of the market share of ceramic products.
## VALUE CHAIN – KEY CERAMICS CLUSTERS (1/2)

Morbi sources key raw material from Gujarat, Rajasthan and other states, while Thangarh majorly uses raw material available locally; Natural Gas major source of fuel for ceramic industry in Gujarat.

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>MORBI, GUJARAT</th>
<th>THANGARH, GUJARAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>51%</td>
<td>83%</td>
</tr>
<tr>
<td>Others(^1)</td>
<td>49%</td>
<td>17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automation Level</th>
<th>MORBI, GUJARAT</th>
<th>THANGARH, GUJARAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raw Material Source</th>
<th>MORBI, GUJARAT</th>
<th>THANGARH, GUJARAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>↑50% from Rajasthan and other parts of Gujarat</td>
<td>Basic raw material locally available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exports</th>
<th>MORBI, GUJARAT</th>
<th>THANGARH, GUJARAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>~15%</td>
<td></td>
<td>Medium export potential</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Organization</th>
<th>MORBI, GUJARAT</th>
<th>THANGARH, GUJARAT</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Varmora" /></td>
<td><img src="image" alt="Orient Ceramic" /></td>
<td><img src="image" alt="Ariston Ceramic" /></td>
</tr>
<tr>
<td><img src="image" alt="AGL Tiles" /></td>
<td><img src="image" alt="Anchor Vitrious Sanitarywares" /></td>
<td><img src="image" alt="Deep Ceramic Industry" /></td>
</tr>
<tr>
<td><img src="image" alt="Simpola" /></td>
<td><img src="image" alt="Oasis" /></td>
<td><img src="image" alt="Anchor" /></td>
</tr>
<tr>
<td><img src="image" alt="Coral" /></td>
<td><img src="image" alt="Casa" /></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Includes charcoal, electricity, diesel, lignite
VALUE CHAIN –
KEY CERAMICS CLUSTERS (2/2)

Khurja cluster source key raw material from Gujarat, Rajasthan and other states, while Virudhachlam cluster majorly uses raw material available locally.

<table>
<thead>
<tr>
<th></th>
<th>KHURJA, UTTAR PRADESH</th>
<th>VIRUDHACHALAM, TAMIL NADU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermal</td>
<td>80-85%</td>
<td>99%</td>
</tr>
<tr>
<td>Electrical</td>
<td>15-20%</td>
<td>1%</td>
</tr>
<tr>
<td>Automation Level</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Raw Material Source</td>
<td>Rajasthan, Gujarat, Madhya Pradesh, Delhi, Kerala, Bihar</td>
<td>Majorly locally available</td>
</tr>
<tr>
<td>Exports</td>
<td>4-5%</td>
<td>Limited</td>
</tr>
<tr>
<td>Key Organization</td>
<td><img src="image1.png" alt="Logos" /></td>
<td><img src="image2.png" alt="Logos" /></td>
</tr>
</tbody>
</table>
TECHNOLOGY EMPLOYED – KEY CERAMICS CLUSTERS

Morbi cluster uses continuous (fuel efficient and high firing quality) kiln type; whereas Khurja, Virudhachalam, East and West Godavari clusters use combination of batch and continuous type of kilns

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>TUNNEL KILN</th>
<th>ROLLER KILN</th>
<th>ROTARY KILN</th>
<th>SHUTTLE KILN</th>
<th>DOWNDRAFT KILN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Continuous</td>
<td>Continuous</td>
<td>Continuous</td>
<td>Batch</td>
<td>Batch</td>
</tr>
<tr>
<td>Fuel Efficiency</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Firing Quality</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Clusters</td>
<td>Morbi, Khurja, Virudhachalam, Thangarh, East and West Godavari</td>
<td>Morbi</td>
<td>Virudhachalam</td>
<td>Khurja, Virudhachalam</td>
<td>Virudhachalam, East and West Godavari</td>
</tr>
<tr>
<td>Application</td>
<td>Sanitary Ware, Various Ceramic Products</td>
<td>Tile Manufacturing</td>
<td>Refractory products</td>
<td>Decorative Items, Ceramic Toys</td>
<td>Bottom Boring sets for steel industries</td>
</tr>
</tbody>
</table>
CLUSTER DETAILS – MORBI, GUJARAT

Morbi Ceramic cluster account for turnover of ~3.5 bln EUR (90% of total ceramic production of India) with 610 units manufactures ceramic tiles, sanitary ware, industrial and technical ceramics

<table>
<thead>
<tr>
<th>CLUSTER HIGHLIGHT</th>
<th>Locations for ~90% of total ceramic production in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCTS</td>
<td>Wall tiles, floor tiles, vitrified tiles, sanitary ware, industrial ceramics and technical ceramic products</td>
</tr>
<tr>
<td>CLUSTER TURNOVER</td>
<td>3.5 bln EUR</td>
</tr>
<tr>
<td>DRIVER FOR CLUSTER FORMATION</td>
<td>Access to key raw materials, availability of dedicated gas lines from GSPC and strategic location (close proximity to port)</td>
</tr>
<tr>
<td>KEY CHARACTERISTICS</td>
<td>2nd largest ceramic tile producing cluster (2.8 mio sqm tiles/ day) in the world</td>
</tr>
<tr>
<td></td>
<td>Unorganized tile manufacturers hold ~50% of the tile manufacturing capacity and supplies significant quantity to organized players in India</td>
</tr>
<tr>
<td></td>
<td>Exports to Middle East, Africa, Sri-Lanka, Bangladesh and Latin America</td>
</tr>
<tr>
<td></td>
<td>Accelerated energy efficient technology up gradation under BEE-SME</td>
</tr>
</tbody>
</table>

LOCATION MAP – CLUSTER

SPLIT OF UNITS BY CATEGORY

- Total: 610 units
- Vitrified Tiles: 37%
- Wall Tiles: 10%
- Sanitary Wares: 9%
- Floor Tiles: 25%
- Roofing Tiles: 11%

Total employment: 350,000

1) Spray Dryer Mud and Third Firing  2) Gujarat State Petroleum Corporation  3) Bureau of Energy Efficiency - Energy Efficiency Programme for Small and Medium Enterprises (SMEs)
CLUSTER DETAILS – THANGARH, GUJARAT

Thangarh cluster renowned for affordable sanitary ware which accounts for turnover of ~20 mio EUR with 225 units manufacture sanitary ware, refractory products, wall and art tiles

- **Cluster Highlight**
  - Renowned for affordable sanitary ware

- **Products**
  - Sanitary ware, refractories, wall tiles and art tiles

- **Cluster Turnover**
  - 20 mio EUR

- **Driver for Cluster Formation**
  - Availability of key raw material locally

- **Key Characteristics**
  - Medium export potential – exports to Middle East and some part of Europe
  - Shift from down draft and shuttle kiln to tunnel kilns for better throughput
  - Products made in Thangarh provides price advantage over other ceramic clusters helped government sanitation drive to become successful

**Location Map – Cluster**

**Split of Units by Category**

- Total: 225 units
  - Sanitary ware: 71%
  - Wall Tiles: 20%
  - Art Tiles: 5%
  - Refractory: 4%

Total employment: 15,000
CLUSTER DETAIL – KHURJA, UTTAR PRADESH

Khurja recognized as 600 year old pottery cluster in India, with 50 mio EUR turnover manufactures products like crockery, electrical items, laboratory ware and sanitary ware

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1) Include laboratory-ware, technical ceramics, refractories, grinding balls, ceramic external decorative, bone china and decorative items

2) Central Glass and Ceramic Research Institute
CLUSTER DETAILS – VIRUDHACHALAM, TAMIL NADU

50 year old cluster initiated by Tamil Nadu government; produces refractory, ceramic tiles, electrical items (insulators) and decorative items 60,000 tons p.a. and provides employment to ~800 people

- **CLUSTER HIGHLIGHT**
  - 50 year old cluster initiated by Tamil Nadu State government

- **PRODUCTS**
  - Refractory, ceramic tiles, electrical items (insulators) and decorative items

- **CLUSTER PRODUCTION**
  - 60 thsd tons p.a

- **DRIVER FOR CLUSTER FORMATION**
  - Tamil Nadu state government efforts to create local ceramic industrial hub, considering the availability of relevant raw materials

- **KEY CHARACTERISTICS**
  - Skill development institute - institute of ceramic technology established to create pool of trained person
  - With technology up gradation cluster slowly moving from down draft kilns to tunnel, shuttle and rotary kilns

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**LOCATION MAP – CLUSTER**

- Vriddhachalam

- Total Number of Units: 300

- Total Employment: ~800
GOVERNMENT INITIATIVES AND PLANS FOR CERAMIC INDUSTRY
GOVERNMENT INITIATIVES/ SUPPORT – CERAMIC CLUSTER

Indian government has launched various schemes such as MSE-CDP and IIUS for cluster development, CLCSS and NMCP for technology upgradation while MDA and MAI for promoting exports of SSI clusters.

<table>
<thead>
<tr>
<th>SCHEME</th>
<th>CONCERNED AUTHORITY</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro &amp; Small Enterprises – Cluster development Programme (MSE-CDP)</td>
<td>Ministry of Micro, Small and Medium enterprises</td>
<td>Cluster development for enhancing productivity and competitiveness as well as capacity building of micro and small enterprises (MSE)</td>
</tr>
<tr>
<td>Industrial Infrastructure upgradation scheme (IIUS)</td>
<td>Department of Industrial Policy and Promotion (DIIP)</td>
<td>Enhance competitiveness of domestic industry by providing quality infrastructure through PPP approach for select clusters with potential to become globally competitive</td>
</tr>
<tr>
<td>Credit linked Capital Subsidy Scheme (CLCSS)</td>
<td>Ministry of Small Scale Industries (SSI)</td>
<td>Technology upgradation of SSI by providing upfront capital subsidy to SSI units</td>
</tr>
<tr>
<td>NMCP</td>
<td>Ministry of Micro, Small and Medium enterprises</td>
<td>SME competitiveness including schemes promoting ICT, tool room, design clinics, marketing support – implementing in PPP</td>
</tr>
<tr>
<td>Marketing Development Assistance Scheme (MDA)</td>
<td>Ministry of Commerce and Industry</td>
<td>Financial assistance and promotion of activities for exports such as participation in trade fairs/events, etc</td>
</tr>
<tr>
<td>Market Access Initiative (MAI) Scheme</td>
<td></td>
<td>Promote exports on sustained basis through market studies/survey</td>
</tr>
</tbody>
</table>

1) National Manufacturing Competitiveness Programme
INITIATIVES – CERAMIC CLUSTER IMPROVEMENT

Initiatives for cluster modernization and restructuring have been undertaken by global organization UNIDO as well as government authorities – MSME and Tamil Nadu SIDCO.

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>INITIATIVE</th>
<th>IMPACTS CERAMICS CLUSTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of micro, small and enterprises</td>
<td>Support to set-up Common Facility Center</td>
<td>• Virudhachalam</td>
</tr>
<tr>
<td>Tamil Nadu Small Industries Development Corporation</td>
<td>Established Institute of Ceramic Technology for common use</td>
<td>• Virudhachalam</td>
</tr>
<tr>
<td>UNIDO and Government of Gujarat</td>
<td>Support for cluster modernization and restructuring</td>
<td>• Morbi</td>
</tr>
<tr>
<td>Government of Gujarat</td>
<td>Support for cluster modernization and restructuring</td>
<td>• Thangarh, Ahmedabad, Himatnagar</td>
</tr>
</tbody>
</table>
# INITIATIVES FOR ENERGY EFFICIENCY – CERAMIC CLUSTER

Initiatives to improve energy efficiency of Indian ceramic clusters has been undertaken by global organizations such as UNIDO and GEF as well as national organizations such as BEE and TERI.

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>INITIATIVE</th>
<th>IMPACTS CERAMICS CLUSTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureau of Energy Efficiency (BEE)</td>
<td>Energy Efficiency Programme For Small and Medium Enterprises (SMEs)</td>
<td>Morbi, East and West Godavari</td>
</tr>
<tr>
<td>The Energy and Resources Institute (TERI)</td>
<td>Scaling-up Energy Efficiency in Small Enterprises (EESE)</td>
<td>Thangarh, Khurja, Virudhachalam</td>
</tr>
<tr>
<td>UNIDO and Global Environment Facility (GEF)</td>
<td>Promoting energy efficiency and renewable energy in selected MSME clusters</td>
<td>Khurja, Morbi, Thangarh</td>
</tr>
</tbody>
</table>
GOVERNMENT SUPPORT

Lowered Goods and Service Tax is expected to narrow down pricing gap between organized and unorganized players; Anti-dumping duty levied on ceramic tableware imported from China for 5 years

- Government imposed definitive anti-dumping duty on ceramic tableware and kitchenware imported from China for five years starting June 2017
- Definitive anti-dumping duty of 0.85 EUR/kg on ceramic tableware based on findings of the Directorate General of Anti-Dumping and Allied Duties, imports were causing material injury to the domestic industry

- GST on ceramic tiles, sanitary ware and tableware lowered to 18% from 28%
  - Pricing gap between unorganized and organized players to narrow down
  - 18% GST to benefit the tile industry as it brings down the value added tax and excise rates

- Indian government has launched various schemes for Micro & Small Enterprises for:
  - Cluster development
  - Technology Up gradation
  - Promoting exports
- These schemes are applicable for Ceramic small scale units and ceramic clusters as well
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