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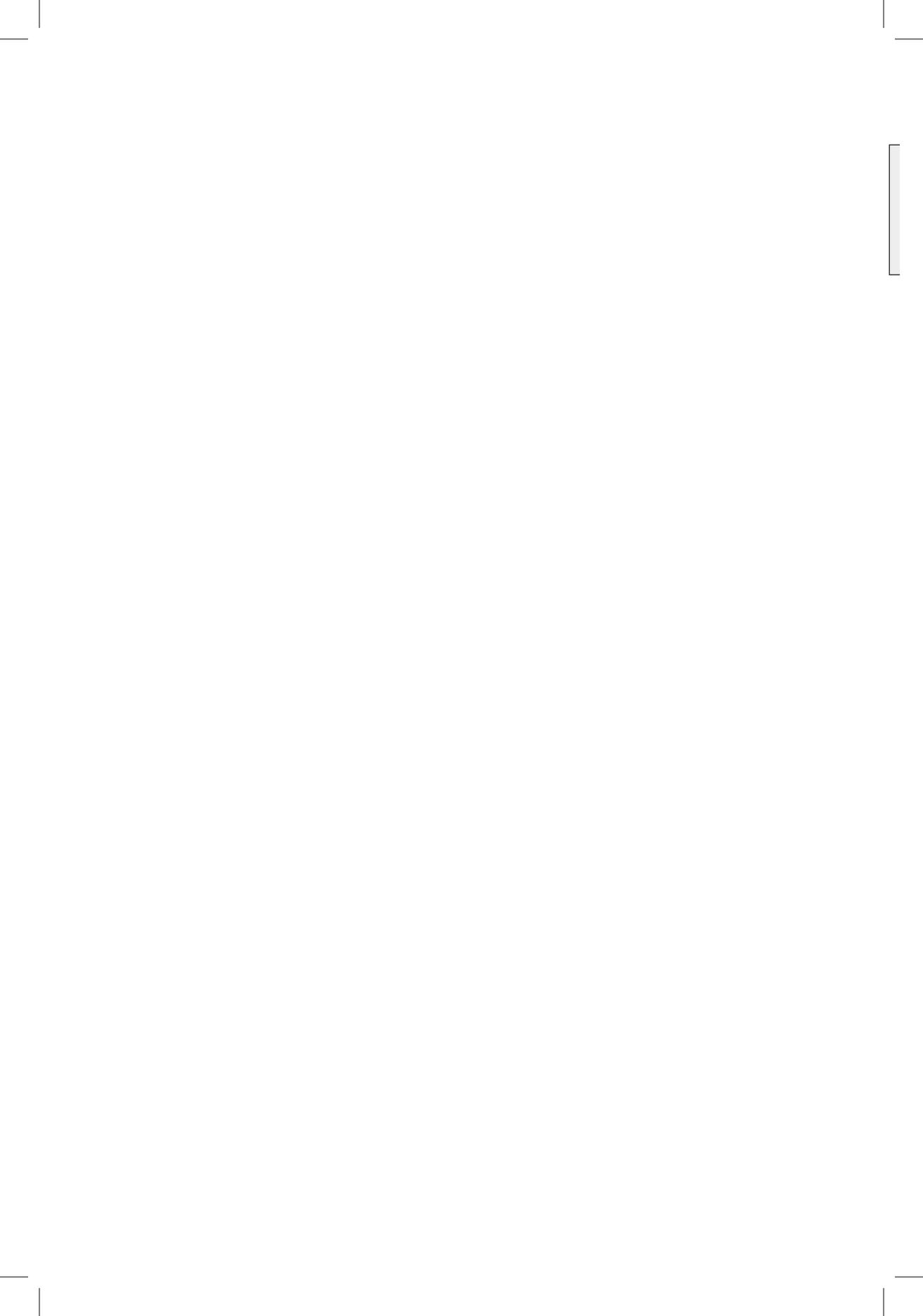
OCCASIONAL PAPER NO. 181

**PROMOTING EXPORTS FROM  
RAJASTHAN: INSIGHTS AND POLICY  
PERSPECTIVES**

This study has been undertaken by Export-Import Bank of India (Exim Bank) in collaboration with ICRA Management Consulting Services Limited (IMaCS).

Exim Bank's Occasional Paper Series is an attempt to disseminate the findings of research studies carried out in the Bank. The results of research studies can interest exporters, policy makers, industrialists, export promotion agencies as well as researchers. However, views expressed do not necessarily reflect those of the Bank. While reasonable care has been taken to ensure authenticity of information and data, Exim Bank accepts no responsibility for authenticity, accuracy or completeness of such items.

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# CONTENTS

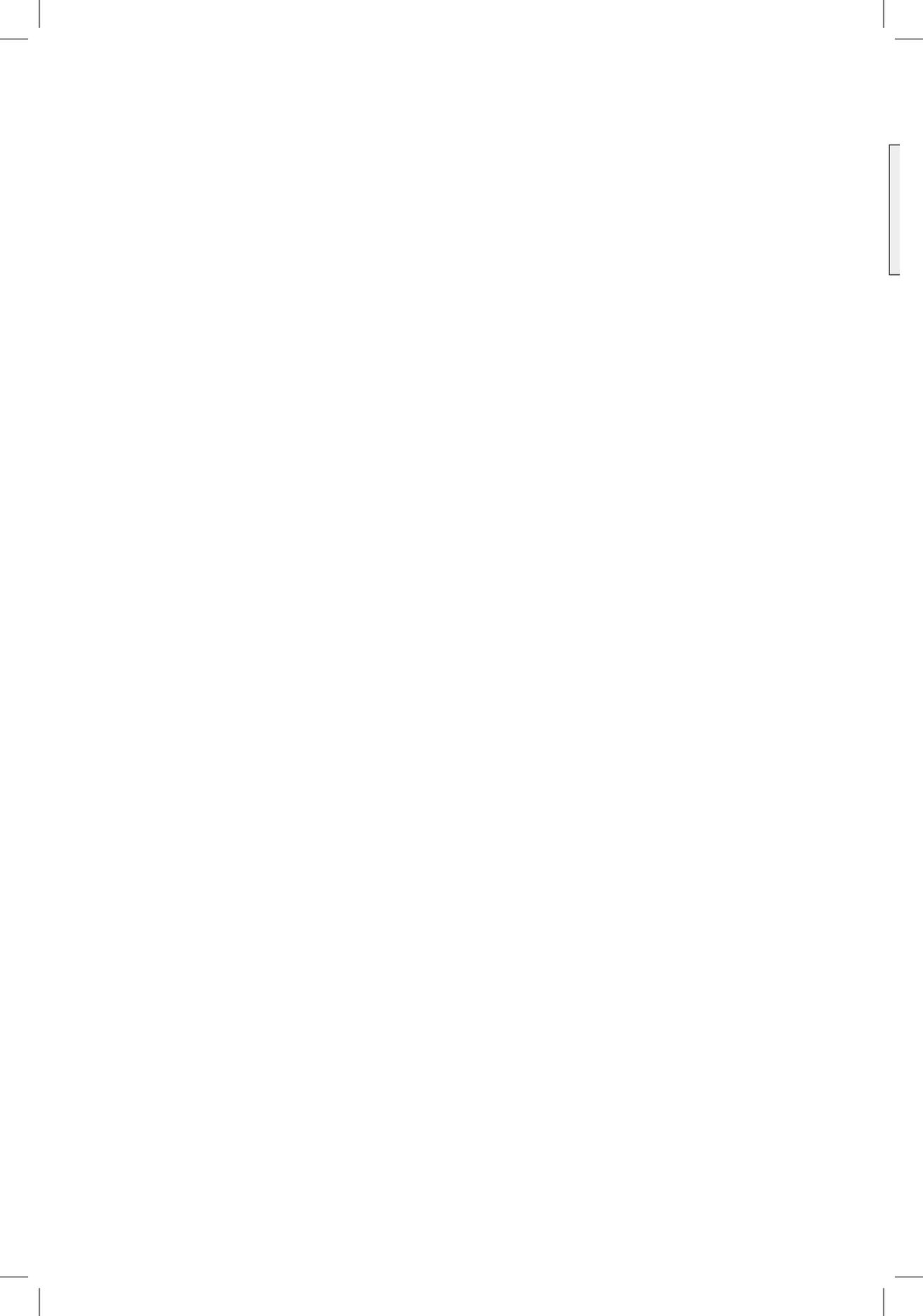
<b>Page No.</b>	
List of Tables	5
List of Figures	7
List of Boxes	9
Executive Summary	11
1. Introduction	29
2. Exports Scenario	44
3. Exports Competitiveness Framework for Rajasthan	64
4. Growth Strategies for Exports from Rajasthan	107
Annexure: Generic NTBs prevalent in all Segments	143

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## LIST OF TABLES

Table No.	Title	Page No.
1	Export Targets for Rajasthan (Rs. Cr.)	14
2	Role of Key Stakeholders	26
3	Contribution of Rajasthan to India's GDP	30
4	Rajasthan Agriculture Productive Capacity (Lakh Tonnes)	31
5	Industrial Production in Rajasthan (2013-14)	34
6	Articles and Major Areas of Production	35
7	Mineral Production in Rajasthan (Lakh Tonnes)	36
8	Policy Analyses Takeaways	37
9	State Comparison across Critical Enablers of Export Performance	65
10	Definitions of Quadrants	67
11	Export Categories' Contribution – India to World	68
12	Export Categories' Contribution – Rajasthan to India	69
13	Rajasthan's Indexed Position	70
14	Integration of Export Performance Analyses	71
15	Competitiveness Position based on Export Performance Analyses	72
16	NTBs in Textiles and Apparels Segment	96
17	NTBs prevalent in Gems and Jewellery Segment	97
18	NTBs prevalent in Agro, Animal and Food Product Segment	100
19	NTBs prevalent in Chemical Segment	101
20	NTBs prevalent in Auto and Auto Parts (Engineering) Segment	102
21	Recap on Segment Competitiveness	105

<b>Table No.</b>	<b>Title</b>	<b>Page No.</b>
22	Export Target for Rajasthan (Rs. Cr.)	108
23	Segment-Specific Strategies for Growth and Value Addition	116
24	Strategy for Strengthening Supply Side Infrastructure – Segment-Wise	126
25	Strategy for Strengthening Demand Side Infrastructure – Segment-Wise	129
26	Quality Requirements	130
27	Trade Specialization Model	133
28	Export Employment for Rajasthan: 2016-2022	139
29	Role of Key Stakeholders	141

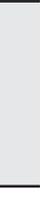
## LIST OF FIGURES

Figure No.	Title	Page No.
1	Proposed Structure of REPC	16
2	GSDP (at Constant Price) of Rajasthan vs. India (Rs. '000 crore)	30
3	Sectoral Movement - Structure of Rajasthan Economy (% , Rs. '000 Cr)	30
4	Industrialization in Rajasthan	33
5	Industry Units in Rajasthan	34
6	Industry Clusters in Rajasthan	35
7	Comparison of Export Trend for Rajasthan and India	45
8	Total Merchandise Exports from Rajasthan	45
9	Sectoral Contribution to State Exports (2015-16)	47
10	Share of Major Sectors in Rajasthan's Exports (FY09, FY13 and FY16)	47
11	Trend in Export of Textiles from India and Rajasthan	48
12	Trend in Export of Garments from India and Rajasthan	49
13	Trend in Export of Gems and Jewellery from India and Rajasthan	50
14	Trend in Export of Dimensional Stones from India and Rajasthan	52
15	Trend in Export of Handicrafts from India and Rajasthan	53
16	Trend in Export of Carpets from India and Rajasthan	54
17	Trend in Export of Agro and Food Products from India and Rajasthan	55
18	Trend in Export of Chemicals and Allied Products (incl Tyres) from India and Rajasthan	56
19	Trend in Export of Engineering Products from India and Rajasthan	57
20	Trend in Export of Mineral Products from India and Rajasthan	59
21	Trend in Export of Metals (Ferrous and Non- Ferrous) from India and Rajasthan	60
22	Trend in Export of Wool and Woollens from India and Rajasthan	61
23	Trend in Export of Drugs and Pharmaceuticals from India and Rajasthan	61

<b>Figure No.</b>	<b>Title</b>	<b>Page No.</b>
24	Trend in Export of Leather and Leather Products from India and Rajasthan	62
25	Trend in Export of Plastics and Linoleums from India and Rajasthan	63
26	Export Competitiveness Framework	66
27	Textile Value Chain – Rajasthan’s Position	89
28	Gems and Jewellery Products Value Chain – Rajasthan’s Position	90
29	Tourism and Hospitality Value Chain – Rajasthan’s Position	91
30	Dimensional Stones Value Chain – Rajasthan’s Position	91
31	Handicrafts Products Value Chain – Rajasthan’s Position	92
32	Agro and Food Products Value Chain – Rajasthan’s Position	93
33	Export Competitiveness Framework for Rajasthan	106
34	Export Competitiveness Framework for Rajasthan – 2022	107
35	Export Strengthening – 6-Pillared Measures for Rajasthan	110
36	Proposed REPC Structure	113
37	Sectoral Export Employment 2016 and 2022	140

## LIST OF BOXES

<b>Box No.</b>	<b>Title</b>	<b>Page No.</b>
1	HS Code Analysis for Textiles Industry	48
2	HS Code Analysis for Garments Industry	50
3	HS Code Analysis for Gems and Jewellery Industry	51
4	HS Code Analysis for Dimensional Stones Industry	52
5	HS Code Analysis for Agro and Food Products Industry	55
6	HS Code Analysis for Chemicals and Allied Products (incl Tyres) Industry	57
7	HS Code Analysis for Engineering Products Industry	58
8	HS Code Analysis for Drugs and Pharmaceuticals Industry	62
9	Exim Bank's Flagship Financing Programmes	137



## EXECUTIVE SUMMARY

India has been focusing on an economic policy that has exports of domestically value added products and services as one of the key growth variable. The Government's commitment to revive export is reflected in the five-year Foreign Trade Policy (FTP) 2015-20 which has laid down a framework for increasing exports of both services and goods from India. This policy is in sync with a number of proposed domestic and external sector reforms that aim to make India a significant participant in world trade. The target is to increase the share of India's merchandise and services exports from the current 2% to 3.5 %.

In the wake of continued export slowdown and fast changing global market scenario, the Government of India has responded with a series of initiatives. One of the key policy measures that has been initiated includes calling for greater involvement of States in pushing exports.

As of now, under the federal architecture of India's governance, foreign trade related matters are handled by the Central Government whereas the actual production of goods and services happens in

States. There is less intervention from the State Governments in terms of overall foreign trade policy formation. Higher participation of the State Governments is required for trade facilitation, reform of standards regime and more value addition in the production cycle. Involvement of States is critical to bridge the gap between the capacity of the domestic industry and the demand emanating from the international market.

Realizing the need for an active participation of State Government in overall trade development of the country, Ministry of Commerce and Industry, Government of India has recently constituted a platform to identify and address trade and infrastructure gaps which adversely affect India's exports. All Indian States together with the relevant ministries and business associations are the members of this Council for Trade Development and Promotion. Through this platform, the Centre and States will jointly work to synergize efforts and take appropriate steps to boost India's exports.

Set against this backdrop, this Study has attempted to draw up a strategy for promoting exports from the State of Rajasthan, based on an analytical

framework which, inter alia, examines the State's current trade profile, its competitiveness and future potential.

### **TRENDS IN EXPORTS**

Merchandise exports from India have more than doubled from Rs. 8.40 lakh crore in 2008-09 to Rs. 17 lakh crore in 2015-16, witnessing a Compound Annual Growth Rate (CAGR) of 11%. During the same period, exports from Rajasthan registered a marginally better CAGR of 13% to amount to Rs. 36,047 crore in 2015-16. The high growth rate experienced after the economic slowdown in 2008-09 has significantly reduced as the export scenario is getting competitive and exporters are facing issues in traditional markets of Europe and the USA.

A year-on-year (y-o-y) comparison of performance indicates that the growth of exports from Rajasthan has fared better than the national average in most years save for 2013-14. However, this growth rate seems to have slowed down during the last three years, reflecting the trend in overall exports from India.

Rajasthan has traditionally been strong in exports of handicrafts, gems and jewellery, dimensional stones, agro products, and textile products. The top five export items from Rajasthan accounting for nearly two-thirds of exports from the State are textiles (including readymade garments), gems and jewellery, engineering

goods, chemical and allied products (including tyres), and handicrafts. Agro and food products, dimensional stones comprising marble, granites and articles of stone mica, metals (ferrous and non-ferrous), and electronics and computer software are also important sectors having a share of more than 5% each in Rajasthan's exports.

In terms of services exports, tourism and hospitality is a key segment in Rajasthan and has immense potential for earning foreign exchange revenue for the State. In fact, Rajasthan has been steadily gaining prominence in the global markets as an important tourist destination of India. In 2015, about 233 lakh foreign tourists arrived in India and Rajasthan was host to about 6% of this number.

The other major contributor to service exports from the State is the IT and ITeS sector. Exports from this sector have increased from Rs. 1,172 crore in FY13 to Rs. 2,305 crore in FY16, contributing 0.3% to national exports.

### **EXPORT PROMOTION POLICY**

Although Rajasthan currently has a small share in India's total exports, the potential for exports from the State is huge. In order to tap this potential, Rajasthan needs to draw out an export policy and provide incentives specific to the industries present in the State, and align these with the Central Government policies and schemes. The State of Rajasthan needs to understand its core strength

in export and accordingly propose item wise incentives. Simultaneous policy formulation at the State level is not new in India. Few States have already proposed incentives aimed at improving their shares in the national exports basket.

Given the diversified export basket of Rajasthan and its landlocked position, the Government needs to be more proactive in providing support for development of logistical network and connection to ports in the country. The most imminent support can come in the form of providing land, which is owned by the State. Land acquisition is often cited as a major hurdle in implementation of many infrastructural projects in the country. The State can also focus on other important aspects of improving competitiveness such as focus on value addition, robust standards and regulation system, access to medium and long term finance, branding, and capacity building of human resources. All these metrics need to be ensconced in the overall policy of export promotion from the State.

In order to assess the effectiveness of any export strategy, it is critical to have a Vision which sets forth measurable targets in place. In this context, the Government of Rajasthan (GoR) can consider enhancing the value of exports from the State by a

factor of at least 2.5 by 2022, through consolidation, diversification and increased value addition of exports, and generating impactful employment opportunities. For this purpose, an Export Promotion Policy can be formulated based on the following building blocks:

- Promote cooperation and unified approach to exports amongst the relevant departments and functions;
- Leverage and create appropriate infrastructure to achieve targets;
- Aim for global quality and standards that will ensure that the products and services from Rajasthan rank amongst the best;
- Build pipeline of skilled human resources who can contribute to export growth from the State.

### **TARGET FOR EXPORTS**

Based on the Vision for exports from the State, the export target for Rajasthan is projected at Rs. 1.2 lakh crore covering merchandise and services. This target has been derived based on a bottoms-up approach, and has been drilled down to the sectoral level. The detailed break-up of segment-wise targets under two different scenarios, viz. conservative and optimistic, have been highlighted in Table 1.

**Table 1: Export Targets for Rajasthan (Rs. Cr.)**

Segments	Rajasthan's Export 2016	Rajasthan's Export 2022 Baseline	Rajasthan's Export 2022 Target
Textile and Readymade Garments	6,392	11,104	12,131
Dimensional Stones Marble, Granites and Articles of Stone, Mica, etc.	2,904	7,454	9,528
Gems and Jewellery	5,345	10,933	14,556
Engineering	4,754	10,806	12,943
Chemical and Allied Products (including Tyres)	4,145	7,585	10,599
Handicrafts	3,343	5,946	6,520
Carpet (Durries)	569	908	1,260
Animals Agro and Food Products	3,094	4,695	9,261
Metals -Ferrous and Non-Ferrous	1,777	3,451	6,903
Plastics and Linoleums	636	640	1,106
Drugs and Pharmaceuticals	398	847	937
Minerals - Mineral Fuels, Mineral Oils and Products, Bituminous Substances, Mineral Waxes, Ores, Slags and Ash	31	982	1,965
Leather and Leather Products	230	240	419
Wool and Woollens	78	119	378
Others	68	68	68
Tourism	10,236	15,181	24,939
IT/ITES	2,305	4,184	8,369
<i>Rajasthan's Exports – Merchandise</i>	<i>33,764</i>	<i>65,779</i>	<i>88,571</i>
<i>Rajasthan's Exports – Services</i>	<i>12,541</i>	<i>19,366</i>	<i>33,308</i>
<b>Rajasthan Total Exports</b>	<b>46,305</b>	<b>85,145</b>	<b>1,21,879</b>

Source: IMAcS analysis. Data inputs from Ministry of Commerce, UN Comtrade, DGCIIS, and Government of Rajasthan

## **POLICY INTERVENTIONS TO ACHIEVE TARGETS**

The export strategies for Rajasthan for meeting the targets and fulfilling the vision have been built around the following six major dimensions:

- **Institutional Streamlining** – This relates to tweaking the focus and enhancing the efficiency of institutions with a view to streamline their functions, which would lead to better export performance.
- **Focus on Growth and Markets** – This dimension adds an element of value addition and sharpens the export target growth with focus on specific markets.
- **Infrastructure Leverage and Strengthening** – This pertains to strategies that aim to leverage and use the existing infrastructure, and create new infrastructure to boost export performance.
- **Capacity Building** – This dimension outlines the need for capacity building of human resources to improve exports.
- **Facilitating Access to Finance** – This element outlines the need for easy access to financing options at competitive pricing for the exporters.
- **Export Promotion Campaign** – This intervention focuses on creating awareness about branding and promotion strategies.

## **Institutional Streamlining**

The overall ecosystem in Rajasthan would need to be framed in a manner that propels the State to a higher export trajectory. Institutional structure comprising the associated State machineries would be pivotal in this process. In Rajasthan's context, the nodal bodies which could ensure fulfilment of the outlined targets include Rajasthan State Industrial Development and Investment Corporation (RIICO), Bureau of Investment Promotion (BIP), Export Promotion Councils (EPC) having regional offices in Rajasthan, State and cluster specific associations such as Rajasthan Chamber of Commerce and Industry, Rajasthan Financial Corporation, and Rajasthan Khadi and Village Industries Board. Additionally, the draft Export Promotion Policy 2017 intends to incubate the Rajasthan Export Promotion Council (REPC) that is envisaged to be set-up with the participation of the Government, exporters and industry in order to provide a forum for exchange of views, sharing of information and removing hindrances and obstacles faced by the exporters. The membership to the Council is proposed to be on an annual subscription basis for exporting units of the State. The above mentioned entities would need to come together and work in sync with a view to create a robust export ecosystem in the State.

## Rajasthan Export Promotion Council

The REPC proposed under the Export Promotion Policy of Rajasthan has focus on four operational areas.

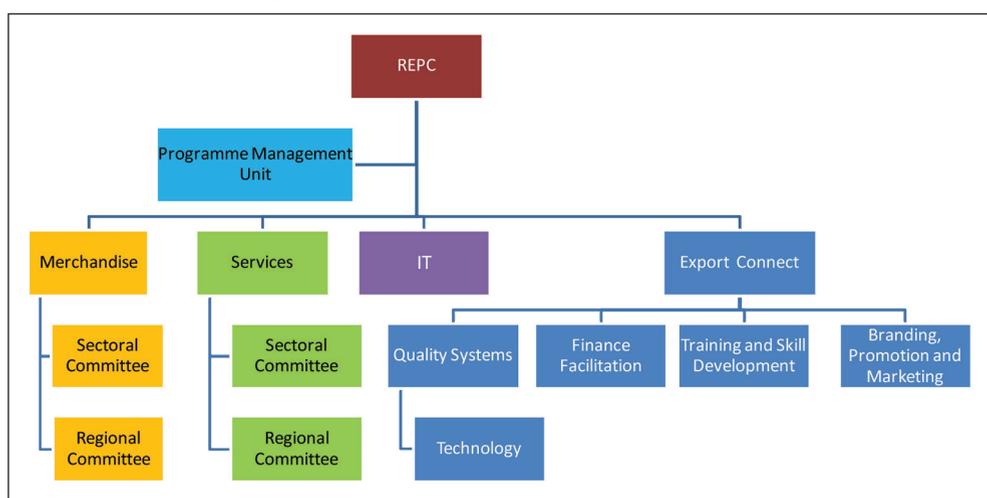
- Sectoral Division: This division will manage the delivery of export promotion products and services to the exporting sectors.
- Regional Division: This division will work with the trade and commerce related offices located in India and abroad through the Embassies / High Commissions, EPCs, Export-Import Bank of India (Exim Bank) and other chambers of commerce and industry.
- Marketing Division: This division will oversee all marketing activities, including trade missions, trade shows, trade fairs and Buyers-Sellers meets.

- Information and Technology Division: This division will manage systems for providing information to stakeholders, including websites, skills and training modules.

In order to strengthen the institutional structure, the following new functions can be included as part of the proposed REPC structure (Figure 1):

- Creation of independent and fully functional department focusing on merchandise and services exports under the proposed REPC structure. The merchandise wing could enhance focus on merchandise export segments by coordinating with state bodies, exporters, etc, while the services wing could focus on services export. These wings could outline strategies for ensuring that targets are met in their respective areas.

Figure 1 : Proposed Structure of REPC



These shall also provide advisory services.

- Setting up of Programme Management Unit (PMU) to review, monitor and assess the impact of export initiatives. The PMU could integrate all the functions of the divisions of REPC. The PMU could also undertake continuous monitoring of the export targets, their achievements and any key constraints for the same on a half yearly schedule. The PMU could also strategize with the REPC and the Department of Industries, Government of Rajasthan for liaisoning with national export bodies on issues of importance.
- The Export Connect wing could offer critical export landscape oriented support services like quality, technology, capacity building and export financing. The Export Connect wing could comprise separate divisions for each of the support services.

- ❖ Quality Division

- Enhance focus on quality control and inspection protocols
- Disseminate the key inputs to export stakeholders

- ❖ Technology Division

- This shall have linkages with the quality division, and will include subject matter experts (who may

also be industry leaders/retired personnel) who will work with stakeholders for boosting the technology and innovation quotient

- Provide pointers on value addition
- Enhance global competitiveness of local products / services
- ❖ Capacity Building Division
  - Work with the National Skill Development Council (NSDC), Sector Skill Council and State level institutes to build export relevant skills in the State
- ❖ Finance Wing
  - Create / integrate export financing options in the State
  - Disseminate key inputs on how to avail the same with procedural details
- ❖ Branding, Promotion and Marketing

***Integrated Export Promotion Portal – Rajasthan State Export Connect Portal (Raj STEP)***

To supplement the institutional strengthening, a one stop information portal for exports could be established. This portal could enable exporters to improve their know-how and access information pertaining to markets,

finance, export promotion programs, event details, etc. Advisory services can also be provided through the portal. This portal can be directly administered and managed by the IT Division of REPC in consultation with various EPCs.

There are already several portals that aid in disseminating export related inputs at the all India level. These include the Federation of Indian Export Organizations (FIEO) trade portal, Confederation of Indian Industry (CII) portal / informative web pages and EXIM Mitra of Exim Bank, amongst others. Segment specific standards are also disseminated through websites like FSSAI, etc. The RajSTEP portal may provide link to access other portals like EXIM Mitra, FIEO, CII, etc and supplement the information with key State specific details. Rajasthan's portal will be unique in terms of highlighting State specific export landscape details, providing support to exporters in local language, and highlighting State specific nodal details and links to key institutions.

### **Focus on Growth and Value Addition**

To expand the export basket, it is of utmost importance to first enhance competitiveness and then ensure its sustainability. One of the efficient ways to widen export opportunities is to look at diversification based on

value addition. There are two broad methods of export diversification:

- Horizontal diversification, which takes place within the same sector (primary, secondary or tertiary) by adding new products in the existing export basket within the same sector.
- Vertical diversification, which entails a shift from the primary to the secondary or tertiary sector, essentially implying processing of domestic manufactured goods. It entails contriving further uses for existing products by means of increased value added activities such as processing, marketing or other services.

There are several sectors where Rajasthan can initiate measures that engender horizontal export diversification. Rajasthan has limited presence in the processed food segment, which presents a case for capacity building and horizontal diversification in the higher value added areas of ready to eat food, processed food, health and wellness food products and organic food products, all of which have a huge export potential. In the dimensional stones segment, the current export basket comprising crude and roughly trimmed granite, sandstone and marble, can be expanded to include worked and processed granite and marble. Further, exporters from the

State can target high value products in the chemical and allied products segment, including agrochemicals, dyes and pigments, textile chemicals, personal care ingredients and construction chemicals. Exporters of engineering goods can consider building capacity in the electronics and engineering plastics segment for the exports market. In the textiles sector, focus on readymade garments and other value added and specialty fabrics can help boost value of exports from the State.

A substantial opportunity also exists for vertical diversification of exports. The bigger and dynamic markets of the EU, Canada, South Korea, Australia and New Zealand can be further leveraged by exporters from the State for vertical diversification of agro and agro based exports. In case of dimensional stones, the markets of the EU, Egypt, Tanzania, South Africa, Russia and Canada can be targeted. China and Latin American countries can be targeted for enhancing export revenues from the handicrafts and carpets segment. Export diversification in the textiles segment can also be achieved by focusing on vibrant markets of Japan, Africa and South Korea.

Facilitating horizontal and vertical diversification would entail suitable interventions from all relevant stakeholders from the State. In

the gems and jewellery segment, establishing design development centre will be essential to support diversification of exports towards processed jewellery, coloured gem stones, pearls, synthetic stones, costume fashion jewellery, non-gold jewellery and rough diamonds. Development of quality tourism infrastructure at tourist destinations and circuits in the State will be critical for improving tourism revenues, especially when targeting new avenues such as adventure tourism, rural and eco-tourism and other innovative tourism categories.

### **Infrastructure Leverage and Strengthening**

This dimension focuses on leveraging and strengthening of existing infrastructure for tapping markets and diversifying the export basket. The State of Rajasthan has already invested in export oriented infrastructure. To meet the export targets, it is essential to adopt a two pronged approach of leveraging the existing infrastructure, and simultaneously creating segment-specific need based infrastructure.

#### ***Infrastructure Leverage***

It is important to analyse the scope for leveraging existing infrastructure so that the investment in creating needless infrastructure may be curtailed and appropriate investments

can be planned. Some of the key leverage measures are outlined below:

- Use the existing Inland Container Depot (ICD) at Jaipur more efficiently by putting in proper procedures and time bound activities. As a result of the usage challenges at the ICD, currently, most of the exporters are exporting either through ports in Gujarat or using air cargo from Delhi.
- Leverage common infrastructure available in Export Promotion Industrial Park and product specific industrial parks to ensure that small units do not invest in replicating infrastructure but rather invest in boosting production and quality.
- Utilize the existing Testing Facilities, especially in gems and jewellery. Currently for quality checks, gems and jewellery items are sent to Mumbai, which leads to considerable loss of time.
- The infrastructure developed by Delhi Mumbai Industrial Corridor (DMIC) will include export infrastructure such as warehousing (in Jodhpur) and logistics that will connect it to the freight corridor. These can be leveraged wherever possible.

### ***Infrastructure Strengthening***

Infrastructure strengthening can be undertaken across two dimensions:

- Supply Driven Infrastructure – This is the infrastructure required by the exporters in the State like warehouse, cold chain, ICDs, etc.
  - Cold Chain and Warehouse: Cold chain infrastructure and warehouses will be critical for the agro and agro based industry. Dimensional stones also require quality storage facilities both on-site as well as post processing. Hence, creating warehouses to support production and exports would be a crucial element of strengthening existing infrastructure.
  - ICDs: There is need for effective and efficient utilization of the existing ICDs in the State. An ICD needs to be created near the Bhiwadi and Neemrana region to support the growth of the auto industry in the area. Further, dry ports can be created at Bhilwara and Udaipur for facilitating textile exports.
  - Multi-Modal Logistics Hub: A multi modal logistics hubs can

- be promoted around areas such as Udaipur, Jodhpur, etc so as to provide easy and convenient transport facility to industrial units in the region. This will facilitate transferring products from the State to various ports and off takers in Gujarat, Maharashtra, Delhi, etc.
- o Processing Infrastructure/ Technology: Limited food processing facilities in the State creates a need for investments in processing infrastructure for agro and agro based industries. Processing infrastructure will also be required for supporting cutting and finishing of dimensional stones in the State. There is also a need to establish a Gem bourse in Jaipur which has customs, banks, certification, dealing/auction rooms and other facilities in a flatted complex.
  - o Utilities: Power, water, road and rail network needs to be improved for strengthening of overall logistics in the State.
  - Demand Driven Infrastructure – This is the infrastructure required to satisfy the demands in the destination markets, like design institutes, quality labs, testing labs, etc.
    - o Design Labs: Indian Institute of Gems and Jewellery can consider offering advisory services pertaining to design, technology and management to gems and jewellery exporters from the State. Similar services can be offered by the Indian Institute of Crafts and Design to handicraft exporters from the State. There is also a need to establish carpet design institute and textile design labs in the State.
    - o Quality Labs: Quality labs can be set up to test quality of products and ensure that they comply with international standards and certifications. In the agro and agro based industry, testing can be undertaken for standards like USFDA, HACCP, etc. In dimensional stones segment, provisions can be made for international certifications like Conformité Européene (CE) certification.
    - o Testing Centres: Marble granite testing centres can be set up for checking parameters like hardness, modulus rapture, etc. There is also a need for multi sector testing facility in key export oriented sectors such as textile, handicrafts and carpets.

### **Standards, Regulations and Quality**

Various quality requirements need to be fulfilled by the exporters in the State. Many export destinations prescribe export specifications which need to be adhered to. It is the responsibility of stakeholders to ensure that these standards are met.

In India, the Export Inspection Council (EIC) is responsible for Quality Control and Inspection. EIC is an advisory body to the Central Government which notifies commodities which will be subject to quality control and/ or inspection prior to export, establishes quality standards for such notified commodities, and specifies the type of quality control and / or inspection to be applied to such commodities.

Critical inputs on export including documentation, time lines, cost involved, etc should be disseminated to concerned exporters through the portal by REPC. All the details can be hosted as a one-click icon on the portal. Online help / call centre system can also be established to clarify doubts. Advisory support can also be extended to first time exporters. One-day training and awareness drive can also be conducted at the district industry centres.

### **Capacity Building**

One of the most important requirements to ensure that the export

growth targets for the State are met is to enable the availability of skilled and productive human resources across various export segments. The capacity building initiatives could be undertaken across two areas: adhering to the national skill framework, and focused skill development through trade facilitation centres.

### **Adhering to National Skill Framework**

There is an evolving National Skill Framework in India that looks at standardizing all skill development initiatives in the country. These standards are set by the National Occupational Standards (NOS) of the Sector Skill Councils (SSC). SSCs are set up as autonomous industry-led bodies by NSDC. SSCs create Occupational Standards and Qualification Bodies, develop competency framework, conduct 'Train the Trainer' programs, organise skill gap studies, and assess and certify trainees on the curriculum aligned to NOS<sup>1</sup>.

The NOS sets out measurable performance outcomes towards which an individual is expected to work in a given occupation or job role. These are valuable tools to be used as benchmarks for qualifications as well as for defining roles at work. The NOS are used to describe good practice

<sup>1</sup>Source: Ministry of Skill Development and Entrepreneurship

in particular areas of work, set out a statement of competence, provide resource for a variety of workforce management and quality control tools, offer a framework for training and development, and form the basis of all qualification frameworks.

The key export segments in Rajasthan require immediate skill development efforts, and it is imperative that the training delivered is adhered to the NOS that are developed by various SSCs. This is critical in the export context because NOS are formed by incorporating requisite international and national standards of performance which are necessary when skilling for exports. These reflect industry demands, and are dynamic in nature which ensures that changing needs are also met.

### ***Focused Skill Development through Trade Facilitation Centres***

The objective of this intervention is to enhance the skill level of key personnel involved in export across the major segments. One of the models that can be adopted to ensure this is the Trade Specialization Model (TSM). The TSM will look at building the key skills in areas where they are inadequate, thereby enabling an appropriately skilled human resource pipeline – especially in domains where export is critical. For this purpose, Trade Specialization Centres (TSC) can initiate large scale skill building processes and adhere to the

standards and processes which are aligned to the NOS. This stability in the supply of personnel will pave the way for initiatives that can look at further strengthening of export performance. In fact, these centres can also leverage resources from the Centre for WTO Studies which conducts programmes on several export related focus areas like Trade Facilitation, Technology Transfer, Trade and Investment Policies, Agreement on Sanitary and Phytosanitary Measures, Anti-dumping, Safeguards, etc.

### **Branding and Export Promotion Campaign**

For a land-locked State like Rajasthan, it is difficult to attract investment in export units with alternatives aplenty for an investor to choose from. Established destinations such as Gujarat, Maharashtra, Tamil Nadu and Karnataka are riding on the advantages of infrastructure and policy support. Rajasthan needs to effectively brand itself and utilize the resources to widen its prospects in the coming decade. Some of the key initiatives that may be incubated in addition to the ongoing initiatives are:

***E-commerce Leverage:*** Online opportunities in traditionally strong sectors such as gems and jewellery, handicrafts, carpets, etc are yet to be tapped completely. While there are a significant number of fairs and exhibitions that the State artisans are exposed to, access through online

platform can also be considered. The important step is to create awareness among MSMEs regarding market place and customer relationship management.

**Branding:** Brand-building and promotion is important for building long term export attractiveness and, can be seen across three dimensions - National Level initiatives, State Level initiatives, and efforts at the Product Level i.e. individual company brands. From the State's perspective, the Government of Rajasthan in partnership with the EPCs, Exim Bank and CII, could consider showcasing opportunities that exist in Rajasthan on the export front. Individual company brands also need to be created. The Government can encourage development of brands by providing incentives for brand-development expenditure with appropriate caps.

**Promotion of Clusters:** For segments like carpets, handicrafts, gems and jewellery, agro products, the entrepreneurs exist at the grassroots level and at times work in silos. Cluster formation must be encouraged by REPC and EPCs so that common infrastructure can be created and utilized so that products could also get integrated. This can also help facilitate access to finance and usher formalization of segments.

**International Event Participation Fund:** Various market development assistance schemes are initiated

at the State and the national level where entrepreneurs get funding for participating in trade fairs. These initiatives have been proven to assist exporters for export promotion activities. State specific schemes for sectors such as Textile, Agro and Food, Gem and Jewellery, and Handicrafts can be initiated by the local body of the respective EPCs in Rajasthan. The Draft Export Policy already sets the course for this. However, implementation needs to be made segment specific. The EPCs in the State can also work with the Department of Commerce to develop their international campaign.

#### **Facilitating Access to Finance: Support from Exim Bank**

Several flagship programmes of Exim Bank, such as Lines of Credit, and Buyer's Credit under NEIA can help propel medium and long term exports from the State, and create export opportunities for Indian companies.

#### **Lines of Credit (LOC)**

Benefits from the LOC program can accrue to exporters from Rajasthan in several key areas. For example, in the cement sector, Exim Bank has several operative LOCs in the countries of Djibouti, DR Congo, Central African Republic, and the Republic of Congo. Exporters from the State can tap such opportunities. In fact, Rajasthan is best placed to take advantage of such opportunities as the State is among the top producers of cement in India.

Under the LOC program, several countries also seek capital goods imports, which can be supplied by the exporters from Rajasthan. Project exports from the State can also be enhanced through the LOC program. Project exports are vital conduits for exporting high-value machinery, labour, expertise, and technology, especially since growth in global merchandise exports remained below 3% for the fourth consecutive year in 2016.

#### ***Overseas Investment Finance (OIF)***

While the State has substantial technology-intensive exports, it will need to move up the ladder in terms of technology. Since investment in R&D has high gestation period, the OIF programme of the Bank can help companies get access to high technology by way of inorganic growth through the mergers and acquisition route overseas. Exporters in Rajasthan can also achieve vertical integration through their overseas investments which will improve their efficiency and margins.

#### ***Buyer's Credit under NEIA (BC-NEIA)***

Enterprises involved in large scale export infrastructure projects in the energy, resources and port sectors continue to look at the Export Credit Agencies to supplement and facilitate finance. Exports of projects and services can be broadly categorized into (i) civil construction projects, (ii) turnkey projects, (iii) consultancy

services, and (iv) supplies, primarily by way of capital goods and industrial manufactures.

As noted earlier, there is substantial potential for engineering exports from the State. However, the scope of these exports is fairly limited as the developing countries are the major markets for India's project exports, and these countries demand medium-to long-term credits. With the BC-NEIA product, project exporters from the State can venture into new markets and help diversify the exports.

#### **IMPACT ON EMPLOYMENT AND JOB CREATION**

The export employment for the State in 2016 was about 3.1 million and this is expected to increase to about 5.3 million by 2022, in line with the increased export targets envisaged for Rajasthan. The incremental employment generated during the said time period is about 2.2 million, of which textiles, engineering and dimensional stones account for a significant share. In terms of economic structure, around 75% of export employment is expected to be contributed by manufacturing and services. In terms of sectors, the competitive segments of tourism, dimensional stones, engineering, textile, agro, and gems and jewellery are expected to show significant increase in export employment from 2016 to 2022.

## ROLE OF STAKEHOLDERS

In the export landscape of the State, there are institutional as well as non-institutional stakeholders who contribute to the export performance. In light of the vision, targets and proposed interventions, the role of key stakeholders has been reiterated in Table 2.

The above stakeholders must holistically enhance the export culture in Rajasthan, implement the

suggested interventions and ensure that the State's exports become more competitive at the national and international level.

## WAY FORWARD

The Government of Rajasthan has identified exports as one of the thrust areas. The State Export Promotion Policy can provide a unified approach to realisation of the State's export potential.

**Table 2 : Role of Key Stakeholders**

Key Stakeholders	Key Role
<p><b>Central Government – Ministry of Commerce, DGCIS, DGFT.</b></p>	<ul style="list-style-type: none"> <li>• Formulate actionable trade policy and review the same periodically in light of various Free Trade Agreements, Non-Tariff Barriers, etc in consultation with the State Government</li> <li>• Develop, Disseminate and Monitor State specific export data</li> <li>• Provide assistance in capacity building of units through EPCs</li> <li>• Collaborate with the State and identify specific export opportunity areas and strategies</li> <li>• Provide assistance in mapping of export infrastructure and debottlenecking of supply related constraints</li> </ul>
<p><b>Department of Industries, State Government</b></p>	<ul style="list-style-type: none"> <li>• Monitor the State's performance on export targets</li> <li>• Assess impact of various State/sector specific export policies</li> <li>• Review existing bilateral/multilateral agreements and its impact on Rajasthan. Provide regular update of this to the Ministry of Commerce and Industry.</li> <li>• Provide assistance in setting up of new centres/ extension centres/ campuses or branches of R&amp;D institutes having relevance for exports</li> </ul>

<b>REPC</b>	<ul style="list-style-type: none"> <li>• Liaison with the National Committee on Trade Facilitation on relevant issues</li> <li>• Liaison with the Council for Trade and Development under the Ministry of Commerce to map out the States' infrastructure requirements and identify key gaps</li> <li>• Offer single window clearance for fiscal support in consultation with RIICO and BIP</li> <li>• Facilitate the establishment of State Level Export Advisory Committee</li> <li>• Undertake regular impact assessment in consultation with the Department of Industries</li> <li>• Facilitate training in Export Documentation and Awareness</li> <li>• Publish State Exporters' Directory</li> <li>• Facilitate setting up of offices of different product specific EPCs in the State</li> <li>• Map existing export infrastructure in the State to actual requirements and identify gaps</li> <li>• Host and maintain export portal</li> </ul>
<b>RIICO</b>	<ul style="list-style-type: none"> <li>• Technical consultancy for project identification and technical tie up</li> <li>• Facilitate government clearances</li> <li>• Merchant banking and financial tie-ups for access to finance</li> <li>• Provide support to REPC on all matters of export</li> <li>• Continue site selection and acquisition of land</li> </ul>
<b>EPCs</b>	<ul style="list-style-type: none"> <li>• Continue promotion and development of respective segments</li> <li>• Work closely with REPC on export related issues and concerns</li> <li>• Work closely with exporters in skill training</li> <li>• Promote clusters development with assistance from various Central and State specific initiatives</li> </ul>
<b>Exporters</b>	<ul style="list-style-type: none"> <li>• Share destination specific issues with REPC</li> <li>• Share export and import data for policy formulation</li> <li>• Participate in impact assessment studies</li> <li>• Enhance awareness on various schemes and fiscal benefits</li> </ul>
<b>Skill providers</b>	<ul style="list-style-type: none"> <li>• Leverage existing infrastructure for training</li> <li>• EPC to actively engage with NSDC for training and SSC for certification</li> <li>• Focus on formal assessments and certifications</li> </ul>

Institutional streamlining will form the pivot for the Export Promotion Strategy. In this regard, the role of REPC would be critical in managing the export promotion activities, overseeing the marketing activities, managing systems for providing information, and monitoring the impact assessment.

The Export Promotion Strategy envisages accelerated across-the-board engagement for expanding the State's export base. This includes infrastructural upgradation and strengthening of standards. Given that tariffs across the world are either already too low or declining in the face of globalisation, adhering to standards will be crucial for improving market access. It will therefore be essential for the State of Rajasthan to streamline standards regulations and quality assessment system at the State level, and align it with the strategies of the Ministry of Commerce, Government of India. This will require close consultations with national level standard setting bodies. Strengthening of supply and demand driven infrastructure can also help enhance the State's export competitiveness, and boost value added exports from the State.

Human resources form another major area of intervention for realising the State's exports targets. There is a need for skilled and productive human resources across all segments of the export value chain. Adoption of Trade Specialization Model can provide

a mix of standardisation, synergy and sustained adherence to skill development initiatives, and thereby bridge the existing skill gaps in the State.

Apart from this, the State must relentlessly push the branding and export promotion campaign for further enhancing the quantum of exports from the State. This can be achieved through leveraging of e-commerce platforms and multi-layered brand building. Market development assistance schemes provided at various levels of governance need to be blended to match the upbeat growth projections of the Export Promotion Strategy.

Finance will also play an important role in harnessing the export potential of the State, especially in the context of medium and long term exports. The various flagship programmes of Exim Bank can create export opportunities for exporters from the State, and thereby provide the much needed fillip to higher-value added exports.

Collectively, these strategies can help the State of Rajasthan in scripting a new narrative of export resurgence together with employment generation. The growth of 2.5 times in the value of exports by 2022 shall translate into substantive outcomes which shall have a bearing on the overall macroeconomics of the State, and as a corollary, on the overall development of the Indian economy.

# 1. INTRODUCTION

Rajasthan is the largest state of India in geographical terms. The State has abundant natural resources and a vast pool of labour force. Coupled with a favorable policy environment, the State is at the cusp of a turnaround in economic performance, backed by a strong thrust on exports. The macroeconomic improvement over the past several years imparts a strong foundation for pushing the exports from the State to an elevated trajectory.

## MACROECONOMIC PROFILE

As evinced by the data given in Figure 2, the output of the State has consistently increased, registering a CAGR of about 8% over the 10 year horizon (2004-05 to 2014-15) and now contributes to about 5% of the country's output.

An analysis of the contribution of Rajasthan to India's GDP over the last decade indicates that the State has been able to improve its contribution from around 4.55% in 2004-05 to 5.27% in 2014-15 (Table 3).

The burgeoning tourism industry has given a fillip to the services sector of the State. As a result, Rajasthan's economy is transitioning from being a primary sector oriented economy to one dominated by the services sector. Driven by robust performance in the services segment, the tertiary sector has increased its contribution to the State's GSDP from 38% in 2004-05 to 44% in 2014-15. At the same time, the share of both primary and secondary sector has declined, albeit marginally in the case of the latter (Figure 3).

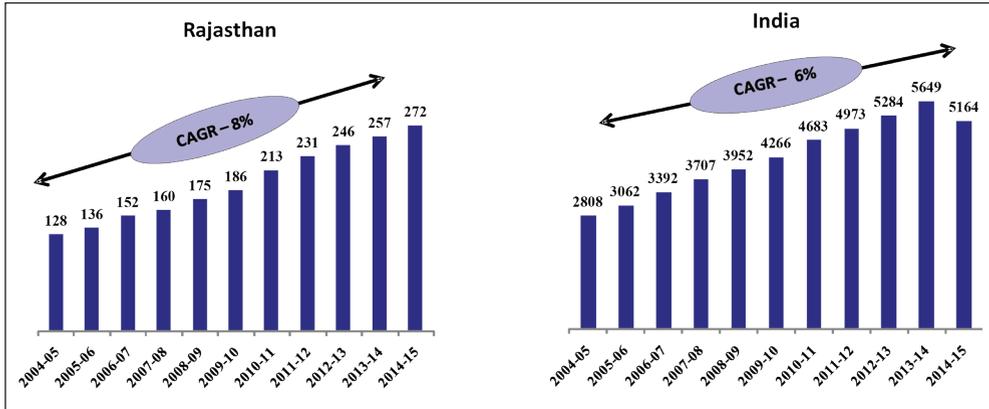
## AGRICULTURE AND ALLIED ACTIVITIES

Though the primary sector's contribution to the State's GSDP is reducing, the State still boasts of significant productive capacity in cereals and pulses (Table 4). Rajasthan has nine agro-climatic zones, which allow cultivation of wide array of crops. The State is the largest producer of rapeseed, bajra, and guar seed. It is also the second largest producer of oilseeds and spices, and the third largest producer of soya bean and coarse cereals in India<sup>2</sup>.

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<sup>2</sup>India Brand Equity Foundation

**Figure 2: GSDP (at Constant Price) of Rajasthan vs. India (Rs. '000 crore)**



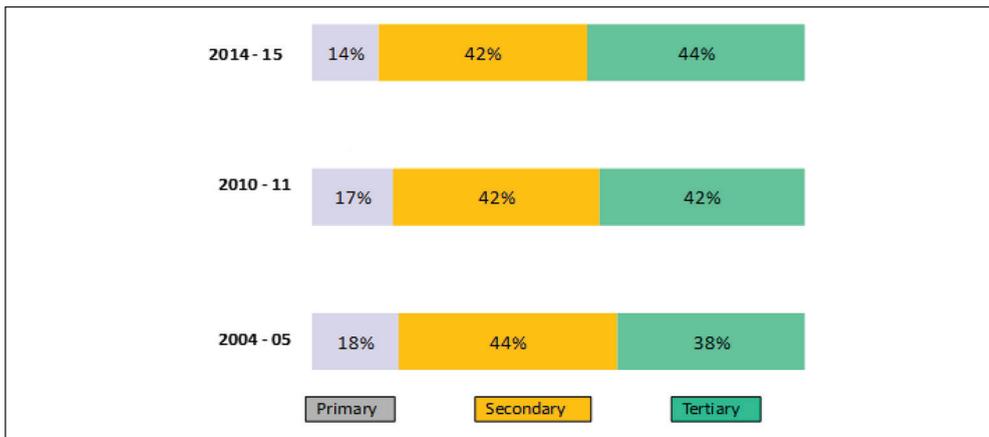
Source: Central Statistics Office, Government of India. Base year of 2004-05 considered for consistency.

**Table 3: Contribution of Rajasthan to India's GDP**

Base Year: 2004-05			
Year	GDP (Rs. Cr.)	GSDP - Rajasthan (Rs. Cr.)	% Contribution
2004-05	2,807,530	127,746	4.55%
2010-11	4,682,598	213,079	4.55%
2014-15	5,163,851	272,227	5.27%

Source: Central Statistics Office, Government of India

**Figure 3: Sectoral Movement - Structure of Rajasthan Economy  
(%, Rs. '000 Cr)**



Source: Central Statistics Office. Base year of 2004-05 considered for consistency

**Table 4: Rajasthan Agriculture Productive Capacity (Lakh Tonnes)**

Crop	2011-12	2012-13	2013-14	2014-15 (Estimate)	Major Producing Districts
<b>CEREALS</b>	<b>195.72</b>	<b>180.61</b>	<b>182.15</b>	<b>178.93</b>	
<b>Kharif</b>	<b>86.22</b>	<b>63.36</b>	<b>62.53</b>	<b>68.16</b>	
Rice	2.53	2.23	3.13	3.16	Hanumangarh, Bundi, Kota, Ganganagar, Banswara, Dungarpur, Baran
Jowar	4.10	4.20	3.57	4.55	Ajmer, Bharatpur, Pali, Bhilwara
Bajra	63.02	38.39	41.18	45.54	Jaipur, Nagaur, Alwar, Sikar, Karauli, Jhunjhunu
Maize	16.52	18.47	14.64	14.89	Chittorgarh, Bhilwara, Udaipur, Banswara
<b>Rabi</b>	<b>109.50</b>	<b>117.25</b>	<b>119.62</b>	<b>110.76</b>	
Wheat	101.61	107.67	110.20	98.69	Ganganagar, Alwar, Bharatpur, Bundi, Baran, Kota, Jaipur, Chittorgarh
Barley	7.89	9.58	9.42	12.07	Jaipur, Ganganagar, Hanumangarh, Jhunjhunu, Nagaur, Bhilwara
<b>PULSES</b>	<b>23.53</b>	<b>19.57</b>	<b>24.71</b>	<b>21.94</b>	
<b>Kharif</b>	<b>13.14</b>	<b>6.37</b>	<b>7.73</b>	<b>9.02</b>	
Moong	6.47	3.89	5.47	2.34	Nagaur, Jodhpur, Jalore, Pali, Ajmer
Urad	4.32	0.94	1.32	1.27	Bhilwara, Banswara, Dungarpur, Bundi, Jhalawar
Moth	4.47	0.75	0.12	5.06	Churu, Jhunjhunu, Bikaner, Nagaur, Jodhpur, Barmer
Chowla	0.73	0.64	0.73	0.25	Sikar, Jhunjhunu, Nagaur, Jaipur
Arhar-tur	0.15	0.15	0.09	0.10	Banswara, Udaipur, Alwar, Dholpur, Pratapgarh
<b>Rabi</b>	<b>10.39</b>	<b>13.20</b>	<b>16.98</b>	<b>12.92</b>	
Gram	9.90	12.77	16.40	12.53	Bikaner, Churu, Ganganagar, Hanumangarh, Jhunjhunu
Masur	0.24	0.38	0.36	0.39	Bundi, Jhalawar, Bhilwara, Bharatpur, Chittorgarh
Others	0.25	0.05	0.22	-	
<b>FOOD GRAINS</b>	<b>219.25</b>	<b>200.18</b>	<b>206.86</b>	<b>200.87</b>	

Crop	2011-12	2012-13	2013-14	2014-15 (Estimate)	Major Producing Districts
Kharif	99.35	69.73	70.26	77.18	
Rabi	119.89	130.45	136.60	123.69	
<b>OILSEEDS</b>	<b>57.65</b>	<b>63.64</b>	<b>60.12</b>	<b>62.28</b>	
<b>Kharif</b>	<b>27.87</b>	<b>25.48</b>	<b>22.12</b>	<b>24.01</b>	
Sesamum	1.66	1.22	0.72	0.95	Pali, Sawai Madhopur, Karauli, Tonk, Jodhpur
Groundnut	8.05	6.16	9.01	10.24	Bikaner, Jaipur, Sikar, Jodhpur, Chittorgarh, Nagaur
Soyabean	13.85	14.69	9.75	9.73	Jhalawar, Baran, Kota, Chittorgarh, Bundi
Castor Seed	4.30	3.41	2.63	3.09	Jalore, Sirohi, Hanumangarh, Barmer
<b>Rabi</b>	<b>29.78</b>	<b>38.16</b>	<b>38.01</b>	<b>38.27</b>	
Rape and Mustard	29.50	37.60	36.22	37.36	Alwar, Bharatpur, Sri Ganganagar, Sawai Madhopur, Tonk, Baran, Kota
Taramira	0.26	0.55	1.76	0.89	Sri Ganganagar, Tonk, Jaipur, Bikaner
Linseed	0.01	0.01	0.03	0.02	Nagaur, Kota, Bundi, Chittorgarh
<b>OTHERS</b>					
Cotton (In Lakh Bales)	17.31	15.28	12.87	14.44	Hanumangarh, Sri Ganganagar, Nagaur, Bharatpur
Sugarcane	4.51	4.02	3.63	2.43	Bundi, Sri Ganganagar, Chittorgarh, Udaipur, Rajsamand
Guar Seed	18.48	20.23	28.62	27.96	Hanumangarh, Bikaner, Sri Ganganagar, Nagaur

Source: Rajasthan at a Glance 2016, Department of Information and Public Relations, Government of Rajasthan

The State also has substantial livestock produce, accounting for a significant share at the national level. With 145 lakh tonnes of production in 2013-14, the State accounted for 10.53% of the national milk production. The State also produced 150 lakh kg of wool in 2013-14, which was 28.4% of the national production. In case of meat and eggs, the State had a share of 1.48% each in India's total.

**INDUSTRIAL ACTIVITIES**

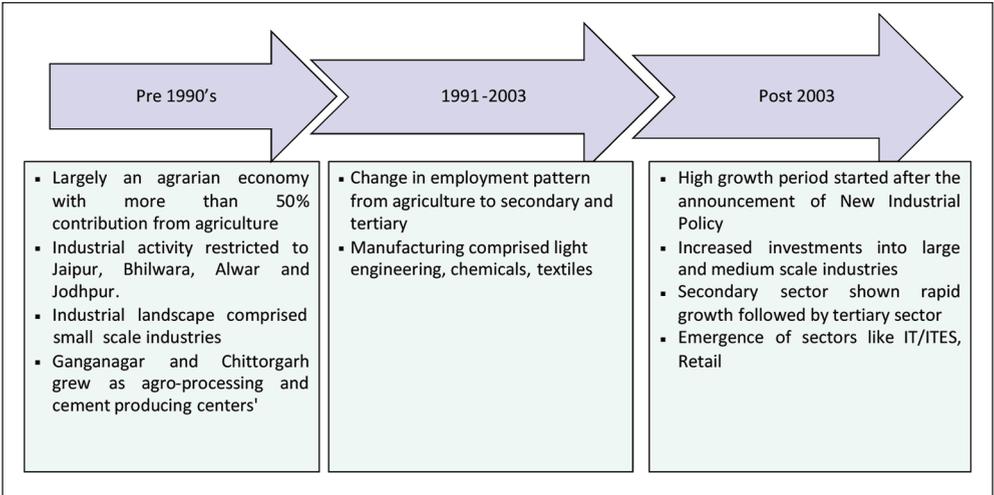
While the secondary sector's share in the State's GSDP has declined marginally over the ten year horizon, the State has undergone significant changes in the industrial landscape. Since the announcement of the New Industrial Policy in 2003, there has been increased investments in large and medium scale industries,

which have witnessed high growths (Figure 4).

The industrial production capacity of the State across large and medium industries was estimated to be about Rs. 1.13 lakh crore in 2013-14. Chemical and fertilizers account for the largest share in the total production value, followed by engineering and fabrication, food products (including alcohol) and cement and cement products (Table 5).

There has also been a marked upswing in the number of registered small scale industries (SSIs) in the State (Figure 5). The importance of SSIs for the economy of Rajasthan is evident from the fact that over 70% of industrial growth emanate from the four regions of Ganganagar, Jaipur, Bhilwara and Udaipur which have a predominance of such units.

**Figure 4: Industrialization in Rajasthan**



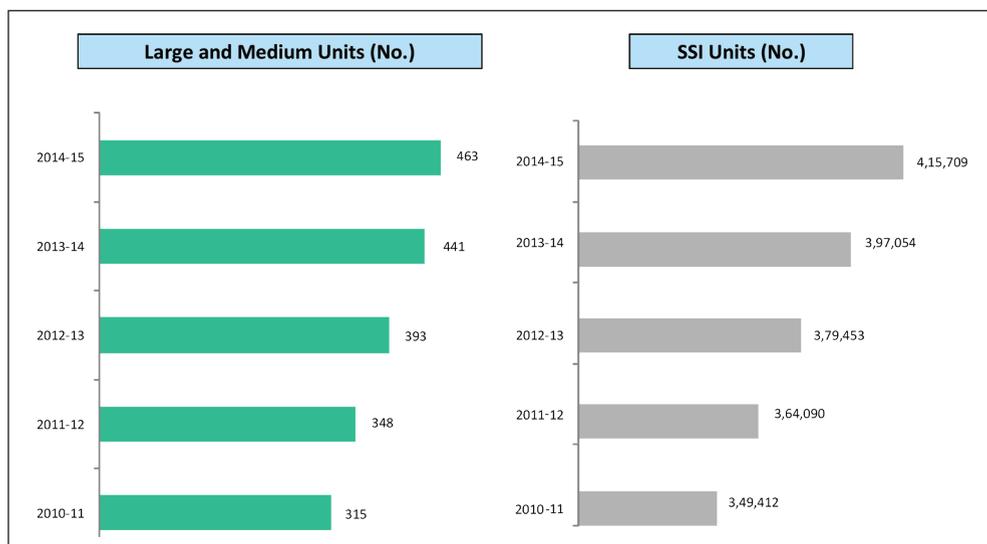
Source: IMaCS Analysis

**Table 5: Industrial Production in Rajasthan (2013-14)**

Major Items	Production Value (in Rs. Cr.)
Cement and Cement Products	11,285
Chemicals and Fertilizers	37,659
Electricals and Electronics	3,298
Engineering and Fabrication	18,943
Food Products incl. Alcohol	13,422
Healthcare	804
Marble, Granite and Others	1,252
Mining and Minerals	7,972
Other Industries (Not Specified)	5,260
Plastic and Rubber	3,310
Textiles	9,981
<b>Total</b>	<b>113,186</b>

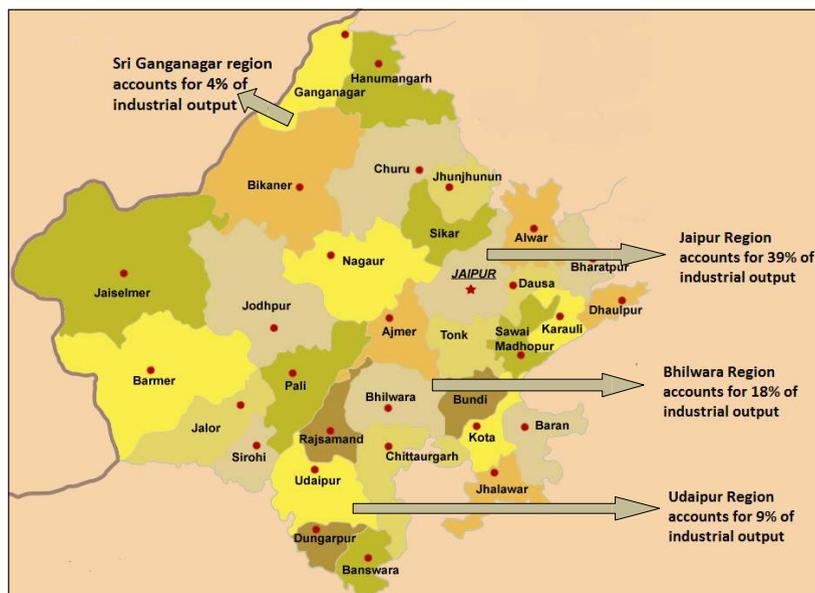
Source: Rajasthan at a Glance 2016, Department of Information and Public Relations, Government of Rajasthan

**Figure 5: Industry Units in Rajasthan**



Source: Rajasthan at a Glance 2016, Department of Information and Public Relations, Government of Rajasthan

**Figure 6: Industry Clusters in Rajasthan**



Source: IMAcS Analysis

Key districts of Jaipur, Jodhpur, Ajmer, Alwar, Udaipur, Bhilwara, and Bikaner not only contribute the highest to the State’s macroeconomic aggregates, but also lead in terms of their industrial contribution to the State’s economy. Table 6 gives the details of district

wise split of zones for production/ manufacturing. Apart from these, an auto/auto components cluster has also been established in northern Rajasthan due to its proximity to the National Capital Region.

**Table 6: Articles and Major Areas of Production**

Products	Areas
Handicrafts	Jaipur (Quilts), Jodhpur (marble items), Udaipur, Jaisalmer (embroidery)
Textiles	Pali, Jaipur, Bhilwara
Gem and Jewellery	Jaipur
Mines	Udaipur
Marble	Udaipur, Chittorgarh, Sirohi, Kishengarh
Food and Agro Products	Jodhpur, Bikaner

## MINERAL RESOURCES

Rajasthan is among the largest mineral producing states of India, with around 79 types of minerals available in the State, of which 59 are produced on a commercial scale. The State has the second highest number of mines in the country, and is one of the largest producers of granite, marble, limestone, cement, salt, copper, and zinc. The State also has mines of gold, silver, sand stone, and phosphate.

Production trends across most mineral products have been encouraging. Production of iron from the State has increased significantly from 0.54 lakh tonnes in 2010-11 to nearly 29.83 lakh tonnes in 2013-14. Quartz production also more than doubled from 6.94 lakh tonnes during 2012-13 to 17.89 Lakh tonnes during 2013-14. Limestone production in the State has also consistently increased from 2011-12 to 2013-14 (Table 7).

**Table 7: Mineral Production in Rajasthan (Lakh Tonnes)**

S. No	Minerals	2010-11	2011-12	2012-13	2013-14
Major Minerals					
1	Copper	9.72	10.00	9.80	10.03
2	Iron	0.54	7.72	5.33	29.83
3	Lead and Zinc	74.14	80.42	86.32	72.82
4	Silver (Lakh Kg)	1.40	NA	NA	NA
5	Ball Clay	18.46	21.16	24.74	31.11
6	Calcite	0.78	0.37	0.62	0.94
7	China Clay	10.20	12.45	17.19	18.81
8	Dolomite	5.07	4.67	8.96	3.68
9	Feldspar	13.00	15.34	20.75	16.68
10	Gypsum	43.22	41.36	27.18	30.88
11	Lignite	19.09	41.72	73.65	76.86
12	Limestone	439.41	453.73	502.90	566.72
13	Mica	0.06	0.04	0.07	0.07
14	Ochres (Incl. Red)	11.52	14.77	19.48	27.46
15	Quartz	3.85	5.97	6.94	17.89
16	Rock Phosphate	14.10	16.59	14.40	11.18
17	Silica Sand	6.33	24.52	8.00	9.96
18	Soapstone	9.57	7.44	8.05	8.10
19	Wollastonite	1.24	1.86	1.89	1.91

Source: Rajasthan at a Glance 2016, Department of Information and Public Relations, Government of Rajasthan

## STATE LEVEL POLICY SUPPORT

The State level policies that give fillip to exports in Rajasthan are as follows:

- a. Rajasthan Investment Promotion Scheme 2014
- b. Rajasthan MSME Policy 2015
- c. Rajasthan E-Governance IT/ITES Policy 2015
- d. Rajasthan Solar Energy Policy 2014
- e. Rajasthan Tourism Unit Policy 2015
- f. Rajasthan Mineral Policy 2015
- g. Rajasthan PPP Policy 2008
- h. Rajasthan Export Promotion Policy 2017

These policies have been profiled based on several parameters like policy statement, vision and mission statement, salient features of policy, impact areas and remarks. Overall impact areas of these policies on the State and the observations are highlighted in the detailed analysis given in Table 8.

**Table 8: Policy Analyses Takeaways**

Policy	Impact Areas in Rajasthan	Remarks
Rajasthan Investment Promotion Scheme - 2014	<ul style="list-style-type: none"> <li>• Rajasthan witnessed investment worth over Rs 1.5 lakh crore from companies in solar, mining, textiles and petroleum sectors.</li> <li>• The Scheme has impacted big and medium size enterprises.</li> <li>• In Aug 2016, Oil India Corp, based majorly out of Assam, had announced plans to invest in development of oil belt of Rajasthan.</li> <li>• A large number of textile firms have set up plants in Rajasthan. The State has received investment proposals of nearly Rs 5,000 crore in the textile sector.</li> </ul>	<p><b>Sufficiency:</b> The eligibility criteria of the scheme comprehensively covers the relevant enterprises.</p> <p><b>Results:</b> The State has been successful in receiving investment of over Rs. 1.5 lakh crore in 2015 and the sector-wise investments in pharmaceutical, textile and oil manufacturing have risen, indicating positive investor sentiments created through the scheme.</p>

<p>Rajasthan MSME Policy - 2015</p>	<ul style="list-style-type: none"> <li>• Rajasthan Udyog Ratna Awards will be given to the MSMEs for growth in exports, quality and technological innovations.</li> </ul>	<p><b>Sufficiency:</b> The policy has comprehensively covered the 5 factors of production required by any organization namely, land, labor, capital, infrastructure and entrepreneurship, along with support functions such as marketing and financing, quality improvement and skill development. Hence, the scope is comprehensive, in terms of non-fiscal interventions. The fiscal interventions are covered under the Rajasthan Investment Promotion Scheme 2014.</p> <p><b>Results:</b> Reforms in areas like single-window clearances, availability of land, environment clearances, construction permits, and access to information and transparency mechanisms have positively impacted Rajasthan's business environment.</p> <p><b>Other:</b> Efforts should be put towards increasing awareness about the policy and its benefits to MSME.</p>
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<p>Rajasthan e-Governance IT/ITeS Policy – 2015</p>	<ul style="list-style-type: none"> <li>• Following benefits are being provided as part of the Rajasthan eGovernance and IT/ITeS policy 2015: <ul style="list-style-type: none"> <li>○ Up to 100% VAT benefit</li> <li>○ Customised package of benefits to enterprises</li> <li>○ IT/ITeS, Electronic System Design and Manufacturing (ESDM) and robotics declared as priority sectors</li> <li>○ Subsidy on bandwidth for connectivity</li> <li>○ Rajasthan Venture Capital Fund/SME Tech Fund RVCF II</li> <li>○ Exemption from zoning regulations and land conversion</li> <li>○ Interest subsidy</li> <li>○ Reimbursement of patent filing costs and quality certifications</li> <li>○ Outstanding performance awards</li> <li>○ Manpower development subsidy</li> <li>○ The objective of the policy is to increase IT exports from the State to Rs. 5000 crore by 2025.</li> </ul> </li> <li>• Rajasthan is the first State to enable utilization of all its services and applications by startups and IT organizations by the mechanism of API/web services, through Raj Sewa Dwaar, Rajasthan’s service delivery gateway.</li> <li>• It’s the first State in the country to have implemented an integrated and unified eGovernance Framework.</li> </ul>	<p><b>Sufficiency:</b> The policy comprehensively covers provisions for VAT benefit, venture capital fund, subsidy, IT infrastructure, security issues etc.</p> <p><b>Results:</b> Implementation has been active and quick, in terms of creating the necessary infrastructure, team of IT professionals, unified e-governance framework etc.</p>
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<p>Rajasthan Solar Energy Unit Policy – 2014</p>	<ul style="list-style-type: none"> <li>• In July 2015, Rajasthan Government gave approval for investment proposals worth Rs.1,56,000 crore to four companies for solar power production of 26,000 MW in Rajasthan.</li> <li>• In July 2016, Power Grid Corporation approved investment of Rs. 2,731 crore in various projects, including setting up of a transmission system for the Bhadla solar park in Rajasthan for Rs. 1,429.38 crore.</li> <li>• According to the Ministry of Renewable Energy, Rajasthan was ranked second in the country in terms of grid-connected solar capacity installations. The State had a total installed solar capacity of 1318 MW out of the total 9235 MW in all States as of January 2017.</li> <li>• On the off grid front, 15000 solar powered pumps have already been installed and work has begun on the net metering scheme.</li> <li>• The incentives provided under the policy have increased Rajasthan’s attractiveness as a potential solar export hub for supplying solar energy to other power hungry Indian States.</li> </ul>	<p><b>Sufficiency:</b> The Policy has set the course for harnessing solar energy in the State.</p> <p><b>Results:</b> The Rajasthan government has been successful in establishing the State as India’s leading State for solar energy. This can be attributed to the quick approval of infrastructure investment proposals by the State government.</p> <p><b>Other:</b> The success of the programme depends on investment in innovation and R&amp;D to bring down the cost of solar technology.</p>
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<p>Rajasthan Tourism Unit Policy – 2015</p>	<ul style="list-style-type: none"> <li>• By 2018, the number of domestic and international tourist arrivals in the State are likely to increase to 50 million and 2.5 million, respectively.</li> <li>• Upcoming tourism projects planned: Mega Desert Circuit (Jaisalmer-Jodhpur-Bikaner-Sambhar-Pali-Mount Abu) and Mewar Complex (Haldighati, Gogunda, Deever and Chhapli).</li> <li>• The Government is also planning to start specialized circuits for birding, handicrafts and spiritual tourism.</li> </ul>	<p><b>Sufficiency:</b> The policy has defined tourism units comprehensively which now includes Hotels, Motels, Heritage Hotel, Budget Hotels, Restaurants, Camping site, Meeting, Incentives, Conferencing Exhibitions (MICE) / Convention Centre, Sports Resort, Resort, Health Resort, Amusement Parks, Animal Safari Park, Ropeways, Tourist Luxury Coach, Caravan and Cruise Tourism. The provisions address land, infrastructure, fiscal interventions and institutional requirements adequately.</p> <p><b>Results:</b> Given the consistent implementation effort, achieving the target tourist footfall by 2018 seems likely.</p>
<p>Rajasthan Mineral Policy – 2015</p>	<ul style="list-style-type: none"> <li>• The Resurgent Rajasthan Summit in November 2015 witnessed the State government signing 13 MoUs worth Rs. 50,527 crore for Mines and Solar Energy. Of these, 12 MoUs - with cumulative investment of Rs. 40,527 crore were related to the mining, steel and cement sectors. These include significant projects in the segments of iron ore, lignite, copper, rock phosphate, limestone and dolomite and base metals, as well as steel and cement plants.</li> </ul>	<p><b>Sufficiency:</b> The policy not only details the strategic and operational challenges faced in the sector, and the framework and imperatives for addressing them, but also mentions the provisions for creating an implementation team and a mechanism to track the success of the policy.</p>

	<ul style="list-style-type: none"> <li>• The entire process of auction of 3 limestone blocks, held in the last week of January 2016, from registration to finalization of bids, was conducted online.</li> <li>• Rajasthan is the first State to hold an open auction for mineral resources at national level.</li> <li>• For technical advancement, acquaintance of rules/regulation to lessees and promotion of export of minerals, regular mineral fairs, exhibitions and seminars will be organized in association with mining associations.</li> <li>• In case of export oriented products, particularly granite and marble, testing facilities will be made available to prospective buyers.</li> </ul>	<p><b>Results:</b></p> <p>The number of investment proposals received at the conclusion of the summit have been encouraging and are indicative of the improvement in investor sentiments for the mining and minerals sector.</p>
<p>Rajasthan PPP Policy – 2008</p>	<ul style="list-style-type: none"> <li>• In 2012, Rajasthan’s Public Private Partnership (PPP) projects were the 4<sup>th</sup> largest in the country.</li> <li>• Some of the projects in urban areas include, alternate route to Ghat Ki Ghuni (Rs 150 cr), ring road project (Rs 890 cr), multi-level parking at Ashok Marg (Rs 90 cr) and affordable housing scheme (Rs 348 cr).</li> </ul>	<p><b>Sufficiency:</b></p> <p>The policy covers provisions for land acquisition, statutory clearances, dispute resolution mechanism, financial and administrative support from the State government, as well as the institutional framework required to encourage investment and ensure smooth completion of PPP projects in the State. The policy may be improved by further strengthening the monitoring mechanism.</p>

	<ul style="list-style-type: none"> <li>• The major projects in PPP mode have been initiated in power sector. Lignite-based power plant at Bhadresh in Barmer alone stands at Rs 5,000 cr. The other major project envisaged by the government under PPP is phase-II of Jaipur Metro.</li> <li>• In Aug 2014, Rajasthan government was heavily dependent on PPP mode for strengthening the road infrastructure in the State. The State has embarked on construction of 20,000 km of road under PPP mode up till 2019.</li> <li>• In 2015, Rajasthan Government decided to run Primary Health Centres (PHCs) in PPP mode. Out of 2,082 PHCs operating in Rajasthan, 90 were handed over to be run in PPP mode.</li> <li>• In 2016, Rajasthan's Dak Bungalows have been planned to be developed into three star hotels through PPP model.</li> </ul>	<p><b>Results:</b> The State attracted PPP ventures.</p>
Rajasthan Export Promotion Policy – 2017	<ul style="list-style-type: none"> <li>• Policy will be effected from 2017</li> </ul>	<p><b>Sufficiency:</b> The policy lays down concrete targets to be achieved in a given time period. The policy also touches upon the approach/strategy to achieve the targets through market and product prioritisation.</p>

Source: Government of Rajasthan

## 2. EXPORTS SCENARIO

India's export basket was worth Rs. 17 lakh crore in 2015-2016 and the States of Gujarat, Maharashtra, Tamil Nadu and Karnataka contributed to bulk of the exports. The top two states of Gujarat and Maharashtra contributed close to 50% of the total exports<sup>3</sup>. Rajasthan, the largest state in geographical area terms, contributed about 2% to India's export basket. The State is abundantly rich in natural resources, has ready availability of labour pool and is also historically endowed with wealth. Clearly, the export potential of this state is yet to be fully realized.

The landlocked nature of the State has significantly restricted its access to a wider market as compared to the better performing states like Gujarat, Maharashtra and Tamil Nadu, all of which have a long coastline. Barring this obvious disadvantage, Rajasthan shares its borders with 6 states and acts as a direct connect between the manufacturing hubs in northern part of the country and the major ports in western part of the country. With its proximity to both these regions, the State is a promising investment destination, and both the State and

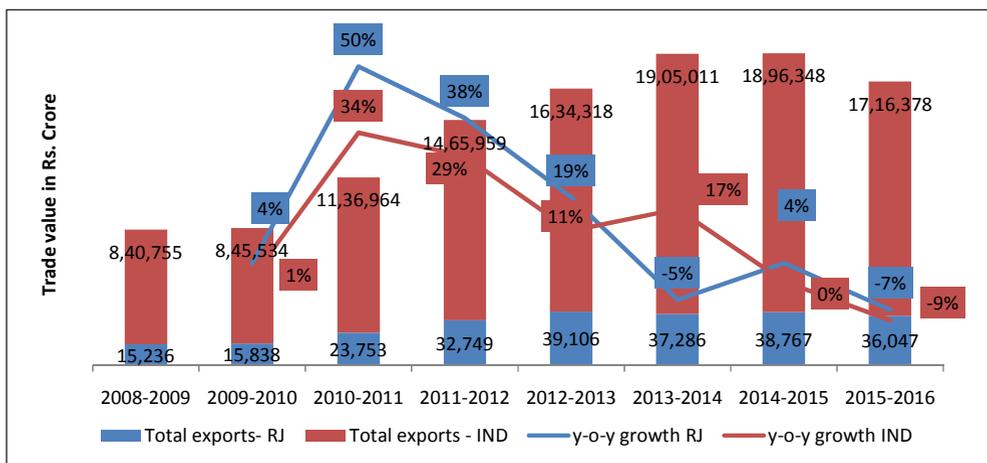
Central Government are actively promoting improvement in output and exports from the State.

Total merchandise exports from India have grown from Rs. 8.40 lakh crore in 2008-09 to Rs. 17 lakh crore in 2015-16 (Figure 7), witnessing a CAGR of 11%. During the same period, exports from the State of Rajasthan registered a CAGR of 13% to amount to Rs. 36,047 crore in 2015-16. The high growth rate experienced after the economic slowdown in 2008-09 has significantly reduced as the export scenario is getting competitive and exporters are facing issues in traditional markets of Europe and the USA.

A y-o-y comparison of performance indicates that the growth rate of exports from the State of Rajasthan has fared better than the national average in most years save for 2013-14. This growth rate, however, seems to have slowed down during the last three years reflecting the trend in overall exports from India. Exports from the State registered negative growth rates during two of the last three years (Figure 7).

<sup>3</sup>ASSOCHAM study on 'Export Performance of States', 2016

**Figure 7 : Comparison of Export Trend for Rajasthan and India**



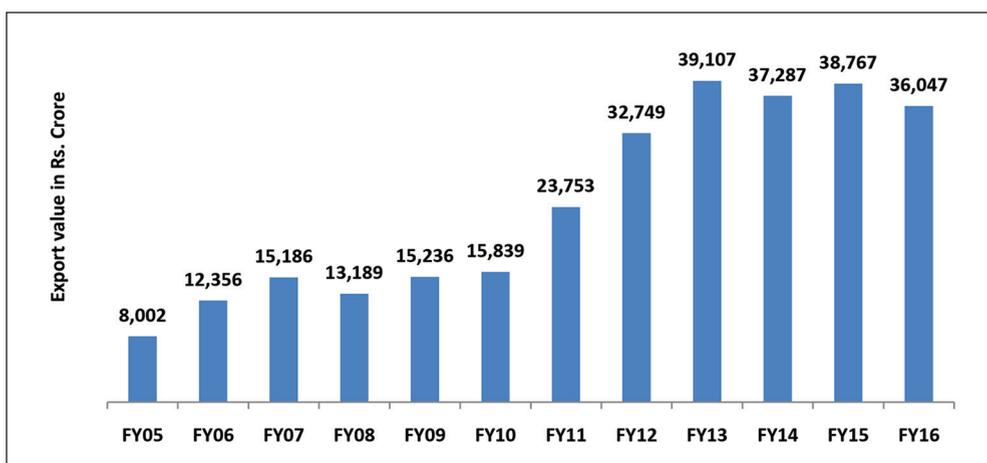
Source: DGCIS, DGFT, IMAcS analysis

On the export front, Rajasthan is traditionally strong in handicrafts, gems and jewellery, dimensional stones, agro and food products, textile products etc. Exports from Rajasthan have more than doubled to Rs. 36,047 crore in 2015-16 from Rs.15,236 crore during 2008-09. However, after the peak achieved in 2012-2013, the

growth has tapered off significantly.

Long term trends in exports over a ten year horizon (FY05- FY16) indicate a considerable improvement, with exports growing from Rs. 8,002 crore in FY05 to Rs. 36,047 crore in FY16, recording a CAGR of 14.7% (Figure 8). However, there are clear

**Figure 8 : Total Merchandise Exports<sup>^</sup> from Rajasthan**



<sup>^</sup>Including software exports

Source: DGCIS, IMAcS analysis

indications of a slowdown in the second half of the period under consideration. The CAGR of 8.7% recorded during the period FY11 to FY16 is almost half of the 14.6% CAGR witnessed in the earlier period of FY05 to FY10.

In terms of services exports, tourism and hospitality is a key segment in Rajasthan. The segment has immense potential for earning foreign exchange revenue. In fact, Rajasthan has been steadily gaining prominence in the global markets as an important tourist destination of India. In 2004, 9.72 lakh foreign tourists arrived in the State and this number increased to 15.26 lakh in 2014<sup>4</sup>. Rajasthan receives significant number of European tourists, with the top three countries being France, the UK and Germany. In 2015, about 233 lakh foreign tourists arrived in India and Rajasthan was host to about 6%<sup>5</sup> of this number.

Apart from tourism and hospitality, the second major contributor to service exports from the State is IT and ITeS sector. Exports from the sector have increased from Rs. 1,172 crore in FY13 to 2,305 crore in FY16, contributing 0.3% to national exports. With adoption of emerging technologies in recent years, the sector has become one of the fastest growing sectors in the State.

On account of increasing focus on research and development in ESDM,

greater support to the MSMEs, and promotion of entrepreneurship through the Rajasthan eGovernance and IT/ITeS policy 2015, the IT and ITeS sector is expected to continue the upward growth trend.

## **SECTORAL CONTRIBUTION TO EXPORTS**

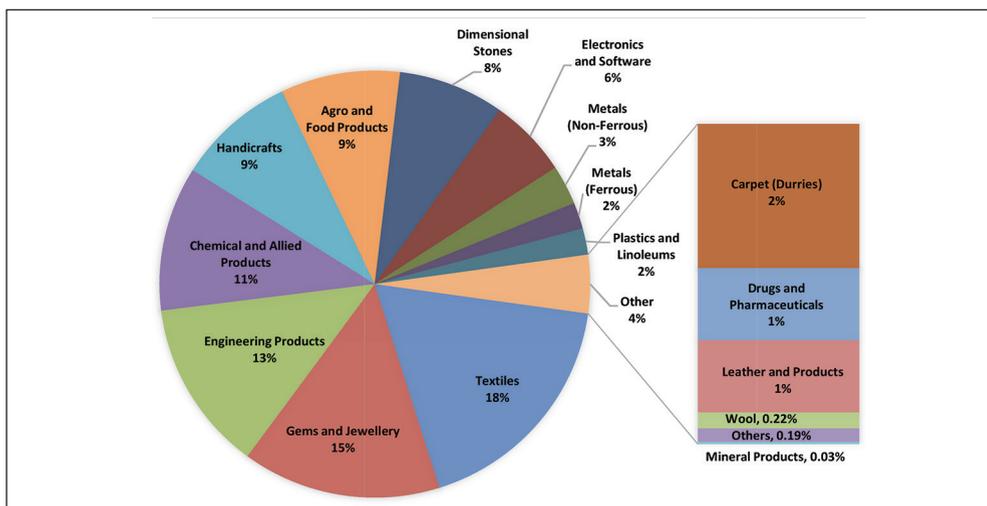
The top five export items from Rajasthan accounting for nearly two-thirds of exports from the State are textiles (including readymade garments), gems and jewellery, engineering goods, chemical and allied products (including tyres), and handicrafts. Agro and food products, dimensional stones comprising marble, granites and articles of stone mica, metals –ferrous and non-ferrous metals, and electronics and computer software are also important sectors having a share of more than 5% each in Rajasthan's exports (Figure 9).

Over the past several years, the share of major commodities in Rajasthan's exports has not changed much, with agro and food products being the only exception. The agro and food products sector accounted for 37% of Rajasthan's exports during FY13. However, the crash in crude oil prices and subsequent drag on hydraulic-fracturing has impacted the export of Guar gum from India, which contributed to bulk of agro and food products exports from Rajasthan.

<sup>4</sup>Source: Rajasthan at a Glance 2016 – RCCI

<sup>5</sup>Source: India Tourism Statistics at a Glance 2015

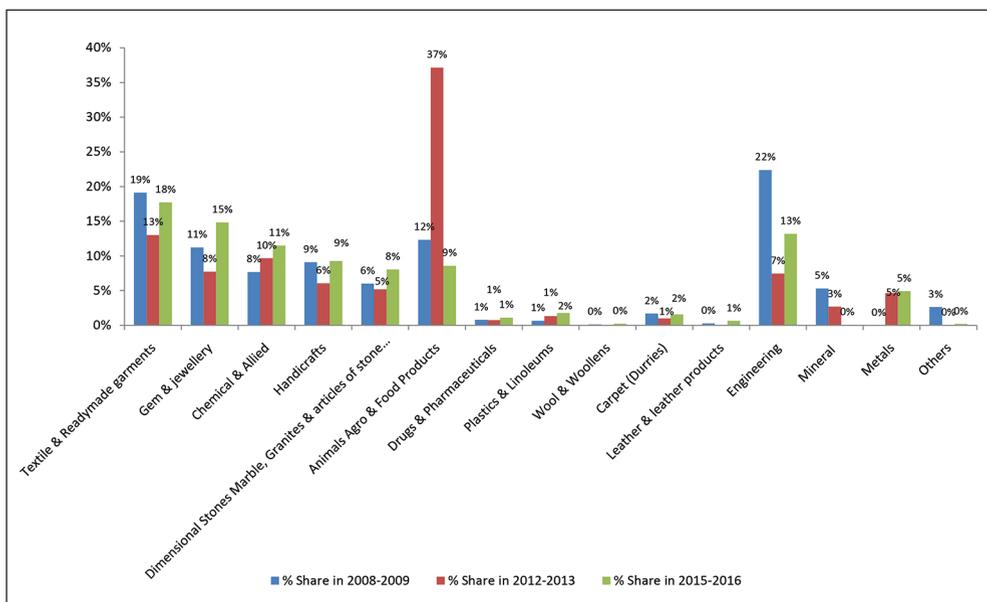
**Figure 9 : Sectoral Contribution to State Exports (2015-16)**



Source: DGCIS, IMAcS analysis. Electronics and software includes IT and ITeS

This impact is clearly visible in the share of exports of agro and food products crashing to 9% in 2015-16 (Figure 10).

**Figure 10 : Share of Major Sectors in Rajasthan's Exports (FY09, FY13 and FY16)**



Source: DGCIS, IMAcS analysis

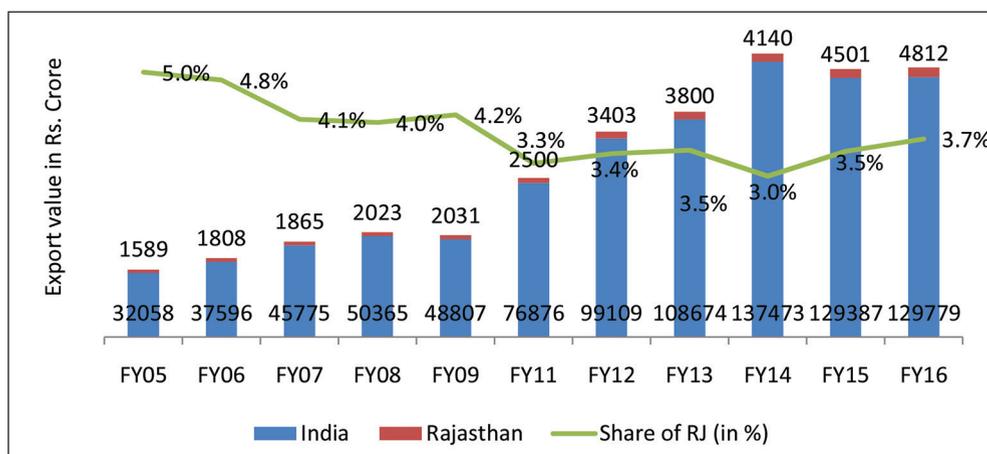
## KEY EXPORT SECTORS

### Textiles and Garments (including Handlooms)

Textiles is one of the leading sectors of exports from the State of Rajasthan. In 2015-16, textiles export from Rajasthan amounted to Rs. 4,812 crore, accounting for nearly 3.7% of the total exports of these products from India. Exports of these products

from Rajasthan registered a CAGR of 11.7% during the period FY05 to FY16. This was lower than the CAGR of 15.0% recorded for India's exports of textiles during the same period. Textile exports from Rajasthan recorded a higher CAGR of 14% during the period FY11 to FY16, as compared to a CAGR of 6.3% during the previous period FY05 to FY09 (Figure 11).

**Figure 11: Trend in Export of Textiles from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

### Box 1 : HS Code Analysis for Textiles Industry

Manmade staple fibres (HS Code -55) contributed close to Rs. 1870 crore to Rajasthan's exports during FY16. This is the single largest export item under the textiles segment. The State is among the largest producers/exporters of woven fabrics (HS code -5515) in India. Among woven fabrics, Rajasthan is the largest exporter of woven polyester fabrics, mainly/solely mixed with viscose rayon (HS code -551511) from India and accounted for close to 40% of India's export of this item in FY16.

The major destinations for export of manmade staple fibres are the textile manufacturing hubs of Egypt, UAE, Turkey, Morocco, and Iran. The export of these items to the western countries are facilitated through Nhava Sheva and Mundra ports, while the exports to Bangladesh and other eastern textile destinations take place through Petrapole land port.

Cotton Yarn>85% (HS Code -5205) is the second most significant textile export from Rajasthan with a value of Rs. 560 crore in FY16. Significant value addition takes place in the State and yarns of various linear densities are exported to markets such as Bangladesh, China etc. Eastern European markets such as Poland, Germany are also important export destination for this product.

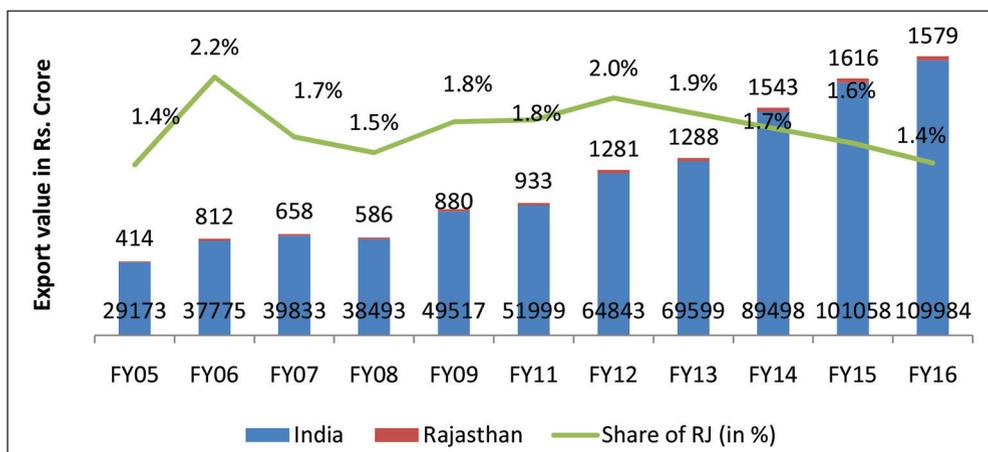
Other major textile exports from the State include impregnated, coated or laminated fabrics (HS code -59), other made textile articles such as bed / toilet / kitchen linen, furnishing articles etc (HS code -63). These items accounted for close to Rs. 670 crore of exports in FY16.

Source: DGCIS, DGFT, IMAcS analysis.

In 2015-16, Rajasthan exported Rs. 1,579 crore worth of readymade garments, accounting for 1.4% of the total readymade garment exports from India. Readymade garments have a share of 4% in the total exports

from the State. Exports of garments from the State recorded a CAGR of 13% during the period FY05 to FY16 — same as the CAGR for exports of these products from India during this period (Figure 12).

**Figure 12 : Trend in Export of Garments from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

### Box 2 : HS Code Analysis for Garments Industry

Readymade garments constitute close to 25% of total textile exports from Rajasthan. Of these, non-knitted garments (HS code -62) are the major contributors. These finished garments are majorly exported to the developed nations such as Japan, the USA, the UK and Spain. These items are mainly exported through Nhava Sheva sea port, cleared through ICDs - Faridabad, CFC Startrack Dadri, and airlifted from Delhi and Jaipur. Bulk of the export happens in only a few items of readymade garments such as – women’s, girl’s dresses of artificial fibre (HS code – 620443), women’s, girl’s dresses of cotton (HS code – 620442), women’s, girl’s shirts / blouses of artificial fibre (HS code – 620640), women’s, girl’s shirts / blouses of cotton (HS code – 620630) and women’s, girl’s track suits / ski suits / swim wear (HS code – 621142).

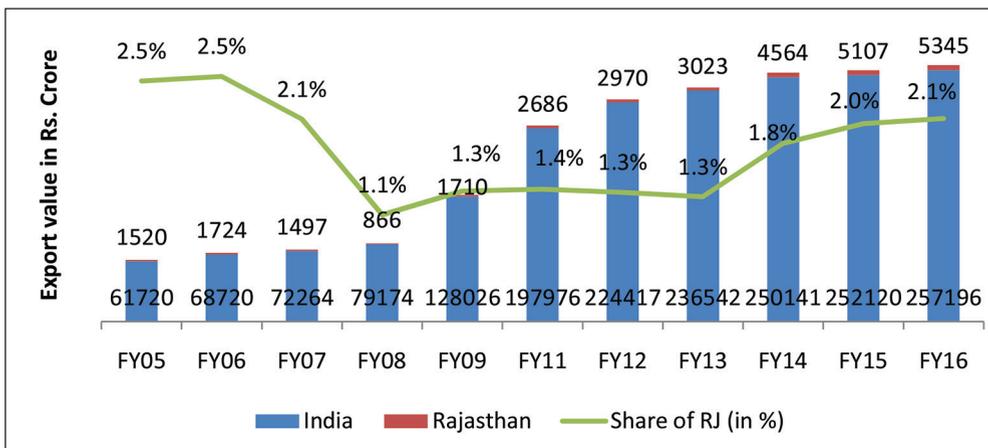
Source: DGCIS, DGFT, IMaCS analysis.

### Gems and Jewellery

Gems and Jewellery (G&J) is among the top contributors to Rajasthan’s exports with a share of around 15% in the State’s exports. G&J exports from the State amounted to Rs. 5,345

crore in FY16, and its contribution to the national exports stood at 2.1% during the year (Figure 13). The share of Rajasthan in G&J exports from India is on the rise for the past few years.

Figure 13: Trend in Export of Gems and Jewellery from India and Rajasthan



Source: DGCIS, DGFT, IMaCS analysis

The export of G&J from Rajasthan has registered a CAGR of 12% during the period FY05 to FY16. Exports at the national level witnessed a higher CAGR of 14% during the same period. However, CAGR during the last 5 years (FY11-FY16) for

Rajasthan was 15% – almost thrice the CAGR for exports at the national level. The y-o-y growth for exports of G&J from Rajasthan has been faster than the national average, albeit a lower base signals higher potential.

### **Box 3 : HS Code Analysis for Gems and Jewellery Industry**

The major G&J export items from Rajasthan are articles of jewellery and parts containing precious metal (HS code- 7113) and mounted precious / semi-precious stones not diamond – not worked/partially worked (HS code -7103). These two segments, valued at Rs. 4,900 crore, contributed close to 90% of total G&J export from Rajasthan in FY16.

The major ports for handling these items are Jaipur AC and SEZ Sitapura. The top destination markets for these items from Rajasthan are Hong Kong, the USA, the UK, Thailand and Singapore, which are also among world's largest markets for G&J trade.

Close to half of the exports in G&J is registered under precious, semi-precious stones unworked/ partially worked (HS code – 710310) and rubies, sapphires, emerald worked but not set (HS Code - 710391) indicating scope for value addition. There is significant exports under the category of jewellery and parts of precious metals (HS Code - 7113) including silver and other precious metals.

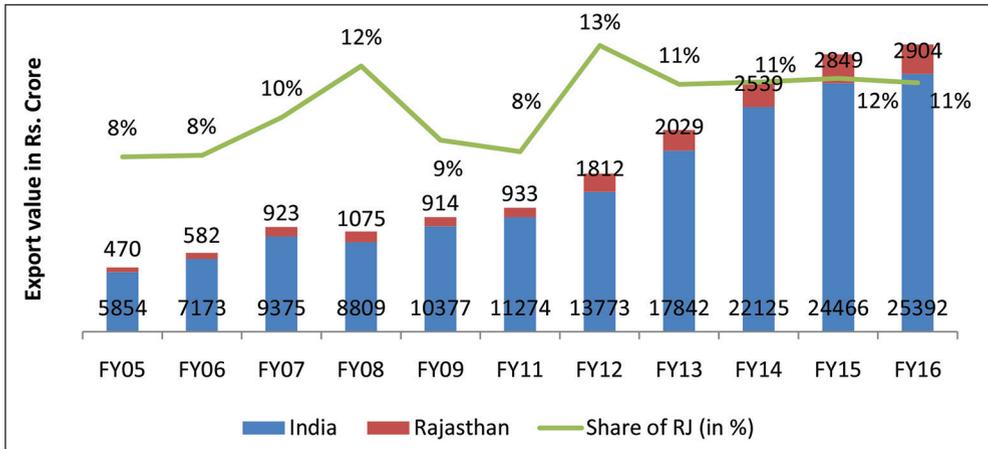
Source: DGCIS, DGFT, IMaCS analysis

### **Dimensional Stones**

Dimensional stones are one of the key export items from the State, and had a share of more than 8% in Rajasthan's total exports during FY16. The total export of dimensional stones from Rajasthan stood at Rs. 2904 crore in 2016, accounting for 11% of India's total exports of these products (Figure 14).

Rajasthan's exports of dimensional stones recorded a CAGR of 18% during the period FY05-FY16. The CAGR of 25% recorded during the past 5 years (FY11-FY16) is significantly higher than the CAGR of 18% registered during the previous four years (FY05- FY09).

**Figure 14 : Trend in Export of Dimensional Stones from India and Rajasthan**



Source: DGCIS, DGFT, IMaCS analysis

#### **Box 4 : HS Code Analysis for Dimensional Stones Industry**

In the category of dimensional stones, sandstone (HS code- 251620) is the single largest export item from the State of Rajasthan. In FY16, the State exported Rs. 900 crore worth of sandstones. The export market is currently narrow and more than 90% of the exports are routed to the UK, indicating a clear case for geographic diversification. The ICDs of Kota, Kanakpura and Mundra sea port handle bulk of exports of sandstones from Rajasthan.

Rajasthan also exports other monumental or building stones, porphyry and basalt (HS code- 251690) to the UK. In FY16, nearly Rs. 310 crore worth of these items were exported from the State.

Natural Steatite, crushed/powdered (HS code-252620) is exported to South East Asian markets such as Indonesia, Thailand, as also to the Middle East and African markets (UAE, Nigeria).

Another significant export item is marbles and travertine (HS code- 251512) with exports of nearly Rs. 100 crore in FY16. The major markets for this product are China, Hong Kong, Italy, Egypt, etc. More than 50% of India's marble export is from Rajasthan. Quartz, lump/powder (HS code -251612) and granite, merely cut into rectangular blocks/slabs (HS code -251612) are also significant items of exports from Rajasthan under the segment of dimensional stones.

After significant value addition, marbles and granites are exported from Rajasthan in the form of tiles/cubes, etc. These worked monumental stones - marbles, travertine blocks / tiles / polished (HS code -680221) and granite blocks / tiles / polished (HS code -680223) contributed Rs. 770 crore to the export of dimensional stones from Rajasthan in FY16. The export destinations for these products were Turkey, UAE, the USA, Egypt, etc. ICD Sabarmati, ICD Kanakpura and Sea ports of Mundra and Chennai cater to the export of these items.

Source: DGCIS, DGFT, IMaCS analysis.

### Handicrafts

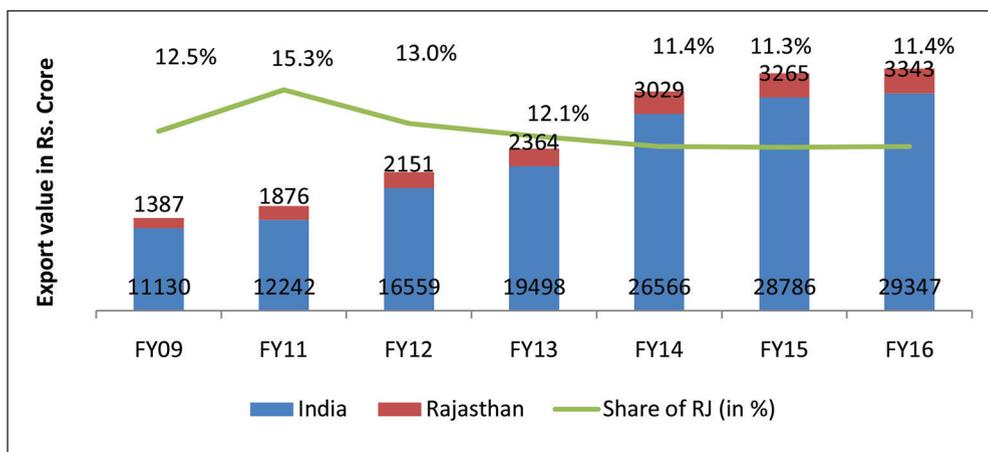
Handicraft exports contributed Rs. 3,343 crore to the export basket of Rajasthan in FY16, accounting for 9% of the State's exports. Total exports of handicrafts from the country was Rs. 29,347 crore in 2016, and Rajasthan was one of leading contributors with a share of 11.4% (Figure 15). Share of Rajasthan in India's handicraft exports has been traditionally high.

The export of handicrafts from Rajasthan registered a CAGR of 13% during FY09-FY16. This was lower than the CAGR of 15% for handicraft exports from India as a whole, indicating the better performance of other competing states.

### Carpets

Exports of carpet from Rajasthan has witnessed significant growth in recent years and recorded a CAGR

**Figure 15 : Trend in Export of Handicrafts from India and Rajasthan**



Source: DGCIS, DGFT, IMaCS analysis

of 19% during FY11-FY16. During the same period, total export of carpets from India posted a CAGR of 11%. In FY16, Rajasthan's carpet exports amounted to Rs. 569 crore, which was 2% of the entire exports from the State. Rajasthan is a prominent State for export of carpets and contributed more than 5.4% to the country's export of carpets in FY16 (Figure 16).

Jaipur and its adjacent districts are the major areas for carpet manufacturing. Bikaner, Jaipur and Ajmer are the major centres for hand knotted carpets. The carpets are available both in cotton and silk fabric. Durries is a unique type of carpet made in Rajasthan, and is currently one of the best-known products of the State.

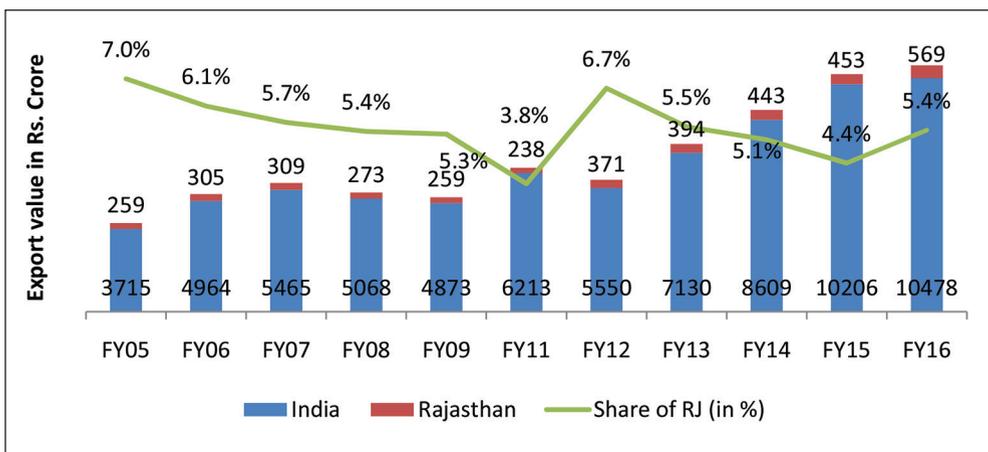
### Agro and Food Products

Agro and food products are among the top export items from Rajasthan, with

a share of nearly 9% in the State's total exports. The major agro products of the State include oilseed, rapeseed, mustard, soya bean, coarse cereals and spices. In 2013, agro and food products were the largest export item for Rajasthan contributing in excess of 37% to the total exports from the State.

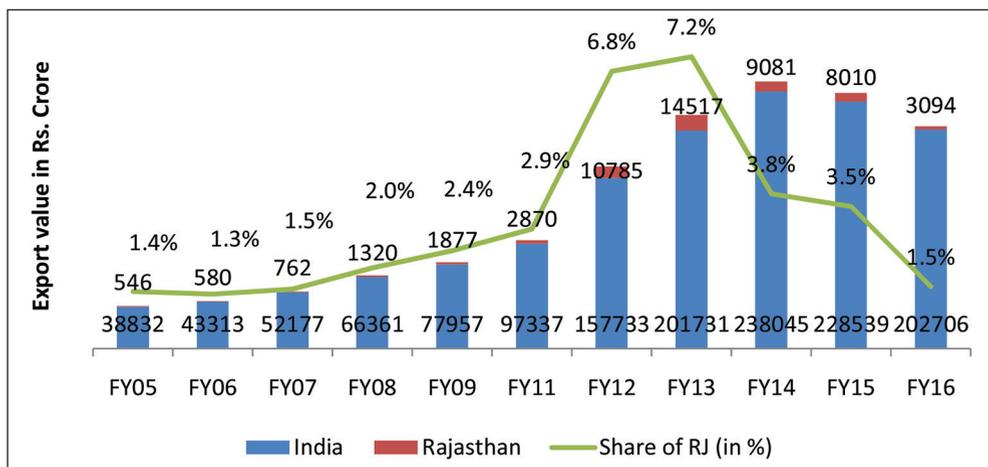
Growth in the sector was supported by increased exports of guar gum — an extract of guar seeds used in the petrochemical industry for fracturing purposes. However, the fall in crude oil prices have adversely impacted this sector, with the exports falling by nearly five times from Rs. 14517 Cr in FY13 to Rs. 3094 Cr in FY16. Owing to this, the share of Rajasthan in total exports of agro and food products from India has declined from 7.2% in FY13 to 1.5% in FY16 (Figure 17).

**Figure 16 : Trend in Export of Carpets from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

**Figure 17 : Trend in Export of Agro and Food Products from India and Rajasthan**



Source: DGCIS, DGFT, IMaCS analysis

### **Box 5 : HS Code Analysis for Agro and Food Products Industry**

Since 2013, there has been a marked decline in exports from Rajasthan of all items under agro and food products. Apart from guar gum extract – mucilage and thickeners (HS code -130232) which constitute close to 85% of exports in this segment, other items have also registered a fall in export value. Oil cakes (HS code- 23) are the second largest export item under this category for the State. The oil cake of rape seed - residue of rape seed / colza seed (HS code – 23064990) had an export value of Rs. 230 crore in FY16 — a drastic reduction from Rs. 640 crore in FY15. The major destination markets for extract of rape seed are South Korea, and South East Asian countries (Viet Nam, Thailand, and Indonesia). These are exported from Kandla sea port in Gujarat and ICD Kanakpura.

Cereals (HS code -10) is another segment where there was a significant drop in exports from Rajasthan. Barley (HS code -1003) and wheat and meslin (Hs code -1001) exports which were worth Rs. 520 crore in 2015 came down to Rs. 30 crore in 2016. Other agro and food products that are exported significantly from Rajasthan include oil seeds (HS code-1207), especially sesame seed oil seed (HS code-120720) and ground-nuts (shelled) and products (HS code -1202).

Source: DGCIS, DGFT, IMaCS analysis.

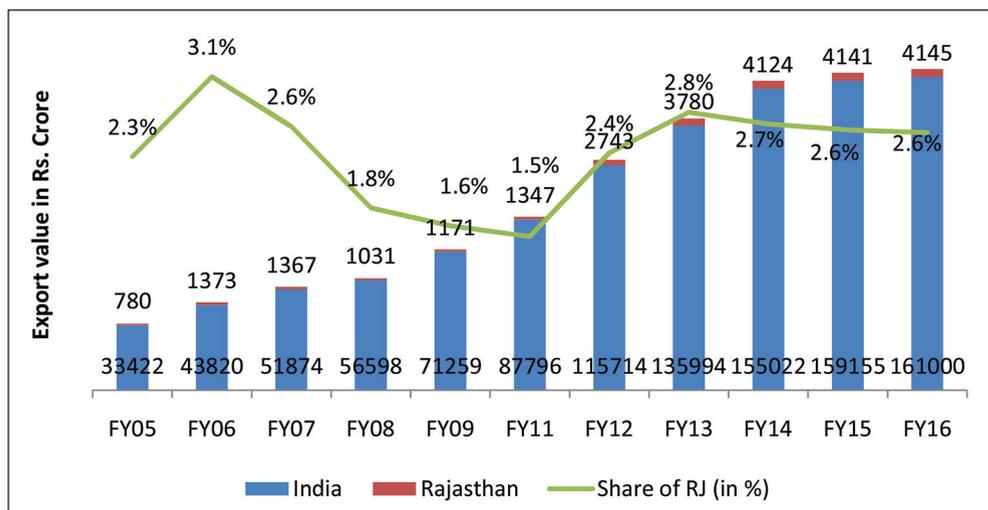
### Chemical and Allied Products (including Tyres)

Chemical and allied products including tyres are among the leading items of exports from Rajasthan, contributing in excess of 11% to the total exports from the State in FY16. The total export of these products from Rajasthan was Rs. 4,145 crore in FY16.

While the share of Rajasthan in the total exports from India is mediocre, it has been gradually increasing from 1.5% in FY11 to 2.6% in FY16 (Figure 18). During FY05-FY16, Rajasthan's

exports of these products registered a higher CAGR of 16%, as compared to the CAGR of 15% for exports from the entire country. The CAGR for exports of these products from the State has been 25% during the past five years (FY11-FY16). This is more than double the CAGR of 11% registered during the previous four years (FY05-FY09). This is in sharp contrast to the trend witnessed at an all India level wherein the CAGR of 13% during the period FY11-FY16 is lower than the CAGR of 21% recorded during FY05-09.

**Figure 18 : Trend in Export of Chemicals and Allied Products (incl Tyres) from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

### Box 6 : HS Code Analysis for Chemicals and Allied Products (incl Tyres) Industry

Under this category, tyres for automobiles (HS Code -4011) constituted close to Rs. 1370 core of exports in FY16. Of these, export of new pneumatic tyres of rubber, with herring-bone or similar tread, for agricultural or forestry vehicles and machines (HS code – 401161) is the single largest export item with an export value of around Rs. 980 crore in FY16. Heavy vehicle tyres such as new pneumatic tyres of rubber, used on buses or lorries (HS code – 401120) also have significant exports.

Apart from tyres for automobiles, tanning, dyeing extract, pigment, etc (HS code -32) are also exported from Rajasthan. The export in this segment is concentrated among a few products such as synthetic organic colouring matter (HS code – 3204), and inorganic colouring matter (HS code -3206).

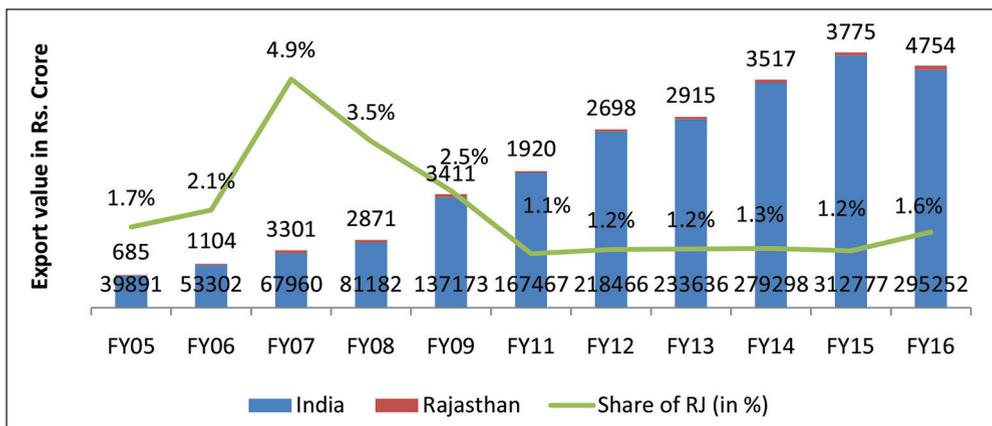
Source: DGCIS, DGFT, IMaCS analysis.

### Engineering Products

Engineering products accounted for more than 13% of the exports from Rajasthan in FY16. Value of exports of engineering products from Rajasthan stood at Rs. 4,754 crore during the year (Figure 19).

The share of Rajasthan in the total engineering goods exports from India is meagre, but has witnessed a gradual upward movement – from 1.1% in FY11 to 1.6% in FY16. During the period FY05-FY16, exports of these products from Rajasthan

Figure 19 : Trend in Export of Engineering Products from India and Rajasthan



Source: DGCIS, DGFT, IMaCS analysis

registered a lower CAGR of 19%, as compared to the CAGR of 20% witnessed by exports at an all-India level. Export growth in the past 5 years (FY11-FY16) has slowed down significantly as compared to the previous 4 years (FY05-FY09), with the CAGR in the former period being

20%, and that in latter being 49%. This trend is in line with the trend for total engineering goods exports from India wherein CAGR during the FY05-FY09 period was much higher at 36%, than the CAGR of 12% during the period FY11-FY16.

### **Box 7 : HS Code Analysis for Engineering Products Industry**

The export of engineering products from Rajasthan is well diversified. At a 2 digit HS Code level, there are 4 items that constitute more than half of engineering products exports from Rajasthan. These are vehicles (HS code -87), engines, transmission parts and other auto and machine parts (HS code -84), electrical and electronics equipment (HS code -85) and optical, photo, technical, medical, etc apparatus (HS code -90). These items contributed close to Rs. 3,270 crore to exports of engineering products from Rajasthan in FY16, registering a y-o-y growth of 18%.

Automobile parts including spare parts (HS code -870899) is the single largest export item classified under engineering products. There is also significant exports of parts for diesel engines (HS code – 840999), transmissions for motor vehicles (HS code -870840) and transmission shafts, including cam shafts and crank shafts (HS code - 848310). Other ancillary items such as ball bearing and parts, parts of air conditioners constitute the remaining auto component/ parts exports from the State.

Machinery, mechanical appliances and parts accounted for close to Rs. 1286 crore of engineering products exports during FY16. Tapered roller bearings (HS code – 848220) was the single largest exported item in this category. Other ball or roller bearings (HS code – 848299), parts of air conditioning machine (HS code – 841590) and crushing / grinding machines and parts (HS code – 847420 and 847490) were the other major exported items.

Rajasthan exported electrical and electronics equipment (HS code -85) worth Rs. 1114 crore in FY16. Major items of export under this category were parts of telephone handsets and equipment (HS code – 851770), other electric conductors over 1000 volts (HS code -854460), other electric conductors less than 1000 volts (HS code 854449), liquid dielectric transformers (HS code -850421), parts of electric switches, connectors, protectors etc (HS code -853890).

Source: DGCIS, DGFT, ImaCS analysis.

## Mineral Products

The State has 79 different types of major and minor minerals, 57 of which are mined currently. Rajasthan accounts for 11.5% of India's total mineral production. Copper, zinc, lead and silver are some of the major metallic minerals produced in Rajasthan whereas petroleum, limestone, mica, gypsum and silica are some of the major non-metallic minerals produced in Rajasthan.

Major mineral products exported from Rajasthan include copper ores and concentrates, zinc ores and concentrates, petroleum oils and limestone. Exports of mineral products from Rajasthan have fallen significantly from Rs. 2916 Cr in FY11 to Rs. 31 Cr in FY16 (Figure 20). While exports of mineral products from India have registered a robust CAGR of 11% during the period FY06 to FY16, the exports from Rajasthan have recorded negative CAGR of (-) 34%.

## Metals (Ferrous and Non-Ferrous)

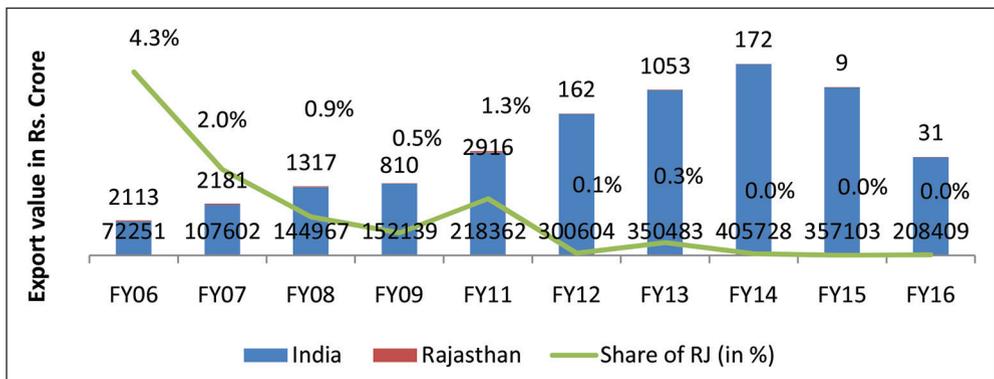
Rajasthan exports iron and steel products, copper products and unwrought zinc and lead. Export of metals (ferrous and non-ferrous) had a share of 5% in the export basket of the State of Rajasthan in FY16. Metal exports from the State were valued at Rs. 1,777 crore in FY16, which is 1.5% of the total exports from India (Figure 21).

While export of metals from India registered a CAGR of 6% during FY11 to FY16, the exports of metals from the State of Rajasthan have witnessed a negative CAGR of (-) 17%. Ferrous and Non-Ferrous metals have a 40%-60% split in total metal exports from Rajasthan.

## IT, ITeS and Electronics

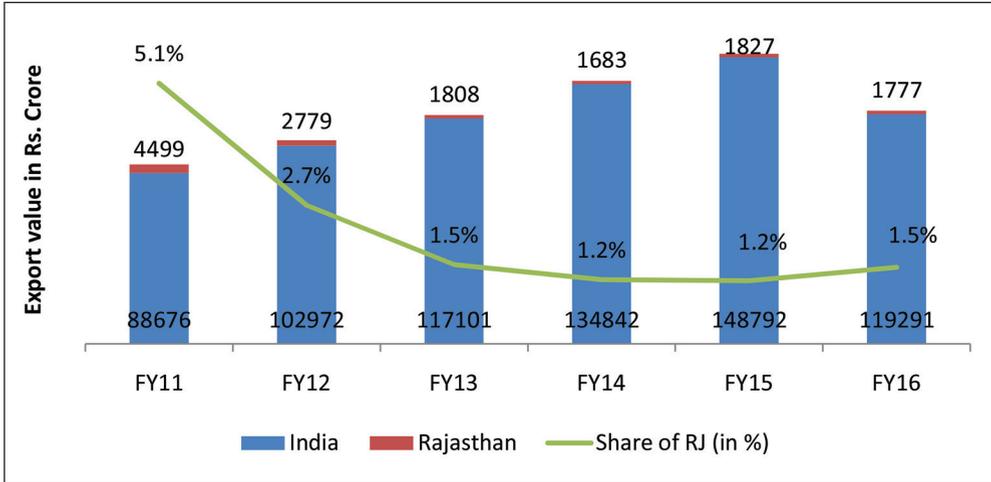
IT and Electronics sector of Rajasthan contributes about 5% to the State's

**Figure 20 : Trend in Export of Mineral Products from India and Rajasthan**



Source: DGCIS, DGFT, ImaCS analysis

**Figure 21: Trend in Export of Metals (Ferrous and Non- Ferrous) from India and Rajasthan**



Source: DGCIS, DGFT, IMaCS analysis

exports. At the national level, IT and ITeS segment has shown a growth rate of about 12% in FY15. Rajasthan contributes about 0.3% to the national IT and ITeS exports, which in value terms is about Rs. 2305 crore.

### Wool and Woollens

Rajasthan exported Rs. 78 crore worth of wool and woollen products in FY16, accounting for 6.7% of total exports of these products from India and less than 1% of Rajasthan's total exports (Figure 22). Woollen carpets are an important export commodity for the State.

In spite of being the largest wool producer in the country, the share of exports from Rajasthan remains low at the national level. With a share of 30% in total wool production in the country (as per last available data in

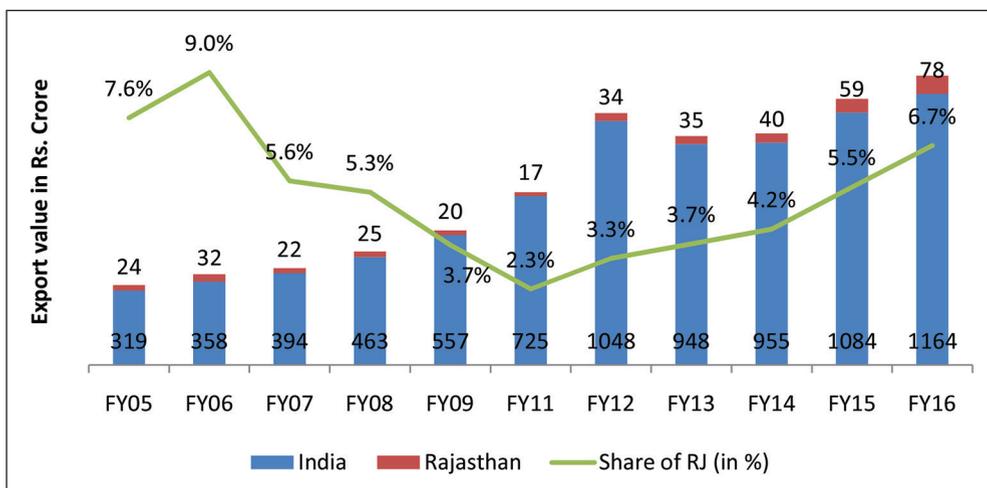
2012), Rajasthan's wool production is twice that of the nearest ranked state, Karnataka. The States of Punjab and Haryana have the most number of wool processing units in the country.

Exports of wool and woollens from Rajasthan have fared better in the past 5 year period (CAGR: 36%) than the period from FY05 to FY09 during which exports registered a negative CAGR of (-) 4%.

### Drugs and Pharmaceutical

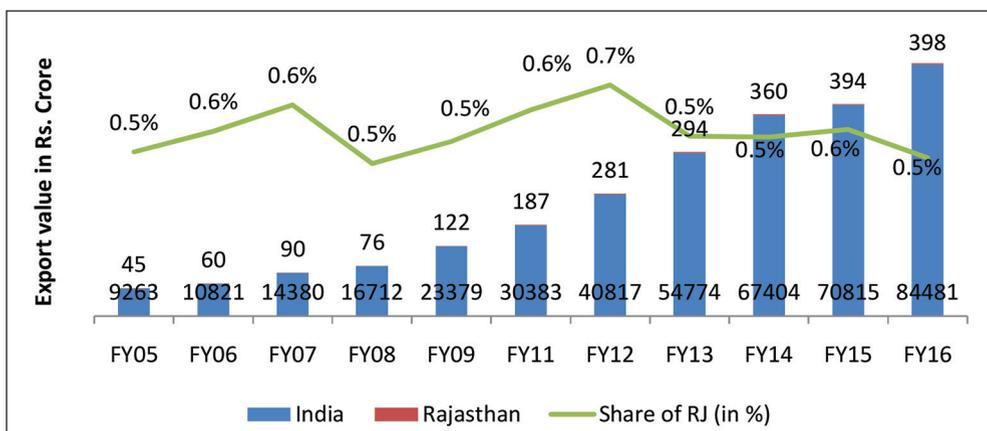
Drugs and Pharmaceuticals sector had a share of 1% in the export basket of Rajasthan in FY16. These exports were valued at Rs. 398 crore during the year (Figure 23). The CAGR for drugs and pharmaceutical exports from the State during the period FY05 to FY16 was same as the CAGR of 22% for national exports.

**Figure 22 : Trend in Export of Wool and Woollens from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

**Figure 23 : Trend in Export of Drugs and Pharmaceuticals from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

### Box 8 : HS Code Analysis for Drugs and Pharmaceuticals Industry

Medicaments, in dosage (HS code - 3004) constituted more than 90% of drugs and pharmaceutical exports from Rajasthan in FY16. Ukraine, Belgium, Uzbekistan, South East Asian countries (Philippines, Myanmar, Viet Nam), etc are the major destinations for export of this item from Rajasthan. The markets where Indian firms currently export medicaments, in dosage (HS code -3004) are the USA, the UK, Russia and African markets (South Africa, Nigeria, Kenya). There is potential for exporters from Rajasthan to export to these nations, where the market is larger and many of the Indian firms are significant players in generic drugs business.

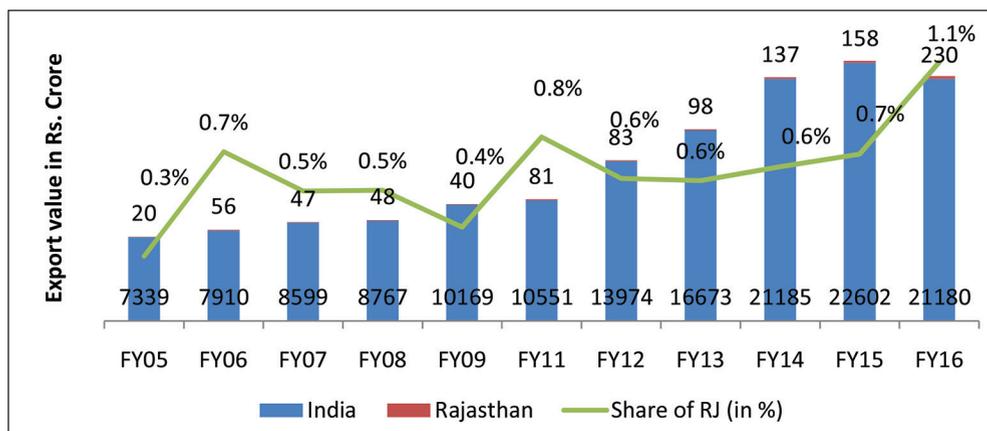
Source: DGCIS, DGFT, IMaCS analysis.

### Leather and Leather Products

Leather and leather products contribute about 1% to the State exports. The popular leather products of the State are juttis and mojris. Exports of these products from the State were valued at Rs. 230 crore in FY16 (Figure 24).

The total exports from India in this sector registered a CAGR of 10% during FY05-FY16, and the exports from Rajasthan followed suit with a 25% CAGR, albeit on a lower base. Rajasthan's share in national exports has been increasing over the past few years.

**Figure 24 : Trend in Export of Leather and Leather Products from India and Rajasthan**



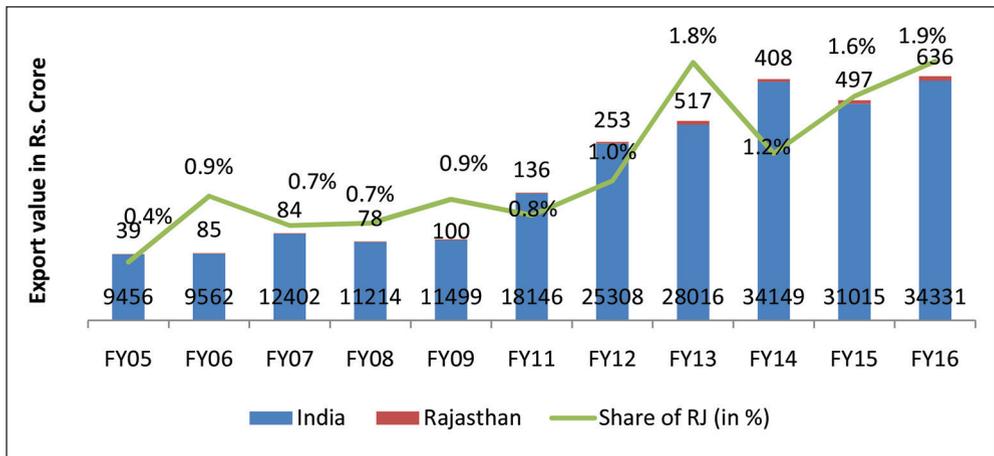
Source: DGCIS, DGFT, IMaCS analysis

### Plastics and Linoleums

The total export of plastics and linoleums from Rajasthan was Rs. 636 crore in FY16 and it accounted for less than 2% of the export basket of the State. The share of Rajasthan in the total exports of plastics and linoleums from India continues to be low and was 1.9% in FY16 (Figure 25). However, Rajasthan's exports of these products are growing at a significant pace and have registered a CAGR of

29% during FY05 to FY16, helping the State to increase its share in India's total exports from 0.4% to 1.9% during this period. During the same period, the total export from India of plastic and linoleums registered a CAGR of 12%, although on a high base. The CAGR for export from Rajasthan in the past 5 years at 36% (FY11-FY16) has surpassed the CAGR of 27% in the previous 4 years (FY05-FY09).

**Figure 25 : Trend in Export of Plastics and Linoleums from India and Rajasthan**



Source: DGCIS, DGFT, IMAcS analysis

### 3. EXPORTS COMPETITIVENESS FRAMEWORK FOR RAJASTHAN

Export competitiveness is one of the oft used terms in the world of international trade and exports. There are a number of international frameworks that exist, which objectively and subjectively try to ascertain the competitiveness of goods and services from nation/ states. Cost competitiveness is driven by several factors some of which are inherent to the State like factor endowments while others are driven by policy and institutional frameworks.

#### KEY ENABLERS OF COMPETITIVENESS

Some of the key enablers of strong export performance in the State are common across segments. These include factors like infrastructure, cost of resources, and ease of doing business.

Infrastructure has a strong bearing on the competitiveness of exports. The key statistics pertaining to the infrastructure in the State are mentioned below:

- The total road length in Rajasthan is around 208,341.81 km and as on December 2015, the road density of the State was 60.88 km per 100 sq. km.

- As of March 2016, Rajasthan had a railway network spanning 5,870.38 km, of which 4,868.06 km was covered under broad gauge, 915.56 km under meter gauge and 86.76 km under narrow gauge.
- Rajasthan has only one international airport in Jaipur which connects to Dubai, Bangkok, Singapore and Sharjah. SEZ Sitapura and Mahindra World City Jaipur are major SEZs present in the State.
- At present, only two Inland Container Depots are there in Rajasthan, one located in Kanakpura, Jaipur and the other in Jodhpur.

There is also plan to develop Dedicated Freight Corridor (DFC) connecting Nhava Sheva Sea port with Dadri near Delhi. The plan is also to develop a Delhi Mumbai Industrial Corridor on a 150 Km band on both sides of DFC. Around 39% of the DFC will pass through Rajasthan and hence will enhance the connectivity of various industrial hubs, ICDs and ports.

**Table 9 : State Comparison across Critical Enablers of Export Performance**

Driver	Rajasthan	Leading Industrial States	India
Cost of power (per unit)	Rs. 7.55 – Rs. 8.80 depending upon consumption	Tamil Nadu - RS. 4.00 to 6.35; Gujarat - Rs. 4.00 - 6.60; Maharashtra - Rs. 8.56 - 11.99	Rs. 4.70
Cost of water (KL)	Rs. 35 - Rs. 50	Tamil Nadu - Rs. 15 to Rs. 60; Maharashtra - Rs. 12.30 to - Rs. 72.6	Rs. 7.20
Cost of Unskilled labour	Rs. 259 – Rs.300	Tamil Nadu- Rs. 373; Gujarat - Rs. 313; Maharashtra Rs. 371	Rs. 350 - Rs. 1465 depending upon skill level and industry
Ease of doing business	Rank - 8	Tamil Nadu - 18, Gujarat - 3, Maharashtra - 10	Rank - 130

Source: IMaCS Analysis

State-level comparison of critical enablers for successful export performance highlights that cost of power is significantly higher in Rajasthan, as compared to other leading industrial States (Table 9).

### **EXPORT COMPETITIVENESS FRAMEWORK**

The overall approach to the development of the competitiveness framework for Rajasthan is built on the following principles:

- The competitiveness framework is not viewed in isolation for the State but rather takes into account the performance of other States, India and the world.

- The framework is viewed as a representation of export segment performance at a point in time. Thus it is something that is dynamic and transitional in nature.
- The underlying qualitative factors that contribute are also examined to determine the possibility of transition and the final position in the framework.

The export competitiveness framework (which is essentially a culmination of the quantitative analysis, key challenges faced by exporters, and the individual segment-wise analysis) will categorize and slot various sectors across four quadrants, namely

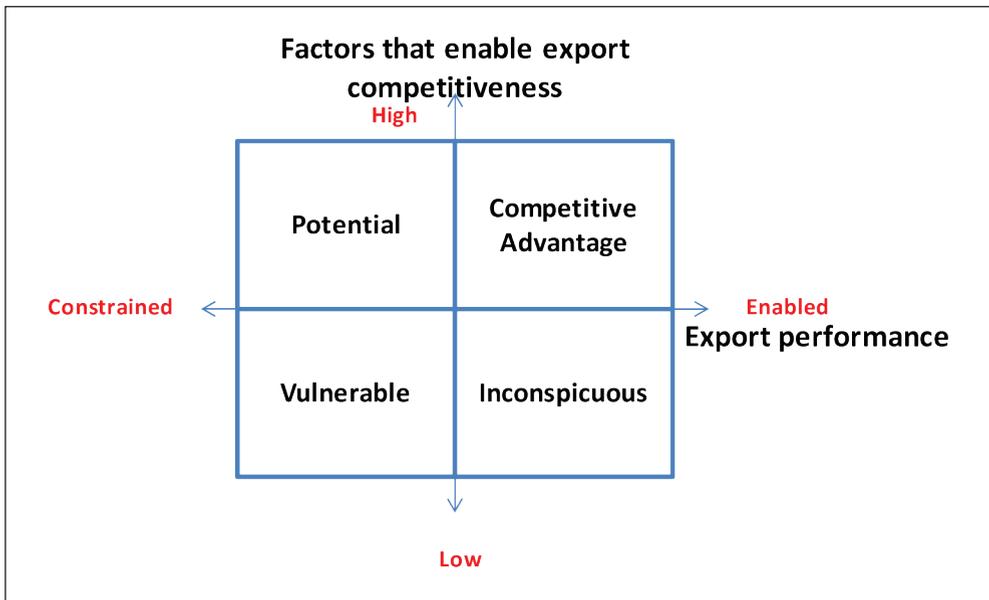
competitive advantage, potential, vulnerable and inconspicuous, bearing characteristics as highlighted below.

1. Competitive Advantage: Segments in this quadrant represent significant export opportunities for Rajasthan
2. Potential: Segments in this quadrant represent potential export opportunities for Rajasthan
3. Vulnerable: Segments in this quadrant represent potential export opportunities for Rajasthan but need to be strengthened to move to competitive position

4. Inconspicuous: Segments in this quadrant represent non-significant / emerging export opportunities for Rajasthan but inconspicuous from the perspective of overall contribution

This slotting will set the context for determining the export targets as well as looking at what segments can essentially transition to the competitive advantage quadrant, thereby providing opportunities to strengthen the export performance of the State. Strategies can then be outlined to determine how the segments in competitive advantage may be consolidated.

**Figure 26 : Export Competitiveness Framework**



## Quantitative Analyses

The export contributions of various segments have been analyzed across three parameters:

- *India's contribution to world exports*
- *Rajasthan's contribution to India's exports*
- *Indexed position of Rajasthan vis-a-vis other States in India*

Quantitative values have been defined to ascertain the extent of contribution by each segment and the relative position of Rajasthan compared to other States. Based on the aforementioned three parameters, the quadrants have been defined as depicted in Table 10.

In order to maintain consistency in comparison of data across the

segments, global exports data for five years has been considered, and for indexing purpose only the latest data for 2015 is taken under consideration.

## **Mapping Export Performance: India to World**

Mapping of India's share in global exports over a five year period indicates that there exists competitive advantage in the sectors of carpets, gems and jewellery, textiles and garments, and IT and ITeS. The sectors of leather and leather products, handicrafts, dimensional stones, drugs and pharmaceuticals, animal, agro and food products, and ferrous metals emerge as potential sectors for exports (Table 11).

**Table 10 : Definitions of Quadrants**

Competiveness Quadrants	India: World Contribution %	Rajasthan: India Contribution %	Rajasthan Index
<b>Competitive Advantage (CA)</b>	> 4%	> 5%	> 0.25
<b>Potential (P)</b>	> 2% to < 4%	> 2% but < 5%	> 0.10 but < 0.25
<b>Vulnerable (V)</b>	> 1% to < 2%	> 1% but < 2%	> 0.02 but less than < 0.10
<b>Inconspicuous (I)</b>	< 1%	<1%	less than 0.02

Source: IMaCS analysis

**Table 11: Export Categories' Contribution – India to World**

Segments	India: World Contribution – 5 year average (2010-2015)	Classification
<b>Merchandise</b>		
Carpets	10.40%	<b>CA</b>
Gems and Jewellery	6.28%	<b>CA</b>
Textiles and Readymade Garments	4.35%	<b>CA</b>
Leather and Leather products	2.99%	<b>P</b>
Handicrafts	2.61%	<b>P</b>
Dimensional Stones, Marble and Granite	2.58%	<b>P</b>
Drugs and Pharmaceuticals	2.22%	<b>P</b>
Animal, Agro and Food Products	2.53%	<b>P</b>
Metal (Ferrous)	2.19%	<b>P</b>
Minerals	1.95%	<b>V</b>
Metal (Non Ferrous)	1.50%	<b>V</b>
Chemical and Allied Products (including Tyres)	1.68%	<b>V</b>
Wool and Products	1.29%	<b>V</b>
Plastics and Linoleum	0.94%	<b>V</b>
Engineering Goods	0.69%	<b>I</b>
Others	0.74%	<b>I</b>
<b>Services</b>		
Tourism	1.55%	<b>V</b>
IT and ITeS	17.95%	<b>CA</b>

Source: UN Comtrade, IMAcS analysis, UNWTO, UNCTAD for IT and ITeS 4 year average taken from 2010-2014, Tourism 3 year average considered

**Mapping Export Performance:  
Rajasthan to India**

Dimensional stones, handicrafts, wool and products, and tourism and hospitality are the sectors where Rajasthan has competitive advantage (Table 12). The potential sectors from exports perspective are textiles,

chemical and allied products (including tyres), gems and jewellery, and agro and food products. Some segments like readymade garments which are currently in the vulnerable quadrant represent potential for Rajasthan, and these should be analyzed from various qualitative standpoints to determine the final competitiveness position.

**Table 12 : Export Categories' Contribution – Rajasthan to India**

Segments	Rajasthan: India – 5 year average (2010-2015)	Classification
<b>Merchandise</b>		
Dimensional Stones, Marble and Granite	11.19%	<b>CA</b>
Handicrafts	12.64%	<b>CA</b>
Wool and Products	3.79%	<b>P</b>
Carpets	5.12%	<b>CA</b>
Textiles	3.33%	<b>P</b>
Chemical and Allied Products (including Tyres)	2.39%	<b>P</b>
Gems and Jewellery	1.56%	<b>V</b>
Plastics and Linoleum	1.28%	<b>V</b>
Engineering Goods	1.22%	<b>V</b>
Animal, Agro and Food Products	2.44%	<b>P</b>
Readymade Garments	1.79%	<b>V</b>
Metal (Ferrous and Non-Ferrous)	2.36%	<b>P</b>
Leather and Leather products	0.66%	<b>I</b>
Drugs and Pharmaceuticals	0.59%	<b>I</b>
Others	0.06%	<b>I</b>
Minerals	0.35%	<b>I</b>
<b>Services</b>		
IT and ITeS	0.38%	<b>I</b>
Tourism and Hospitality	7.19%	<b>CA</b>

Source: Government of Rajasthan, UN Comtrade, IMAcS analysis

**Mapping Export Performance: Rajasthan's Indexed Position**

The indexed position of Rajasthan i.e. the standing of the State in comparison to the highest contributing State in a particular export category, has been outlined in Table 13. Based on this analysis, only dimensional stones appear as an area of competitive advantage for Rajasthan. The potential areas are agro and food

products, textiles and garments, wool and products, metal and carpets. Some traditionally strong segments like gems and jewellery, which are currently in the vulnerable quadrant, represent potential for Rajasthan, and these should be analysed from various qualitative standpoints to determine the final competitiveness position.

**Table 13 : Rajasthan's Indexed Position**

Segments	Rajasthan Indexed Position	Classification
<b>Merchandise</b>		
Dimensional Stones, Marble and Granite	0.67	<b>CA</b>
Animal, Agro and Food Products	0.13	<b>P</b>
Textiles and Readymade Garments	0.12	<b>P</b>
Wool and Products	0.19	<b>P</b>
Metal (Non Ferrous)	0.13	<b>P</b>
Carpets	0.13	<b>P</b>
Chemical and Allied Products (including Tyres)	0.08	<b>V</b>
Engineering	0.06	<b>V</b>
Plastics and Linoleum	0.05	<b>V</b>
Metal (Ferrous)	0.04	<b>V</b>
Gems and Jewellery	0.03	<b>V</b>
Leather and Leather products	0.03	<b>V</b>
Drugs and Pharmaceuticals	0.02	<b>I</b>
Minerals	0.0002	<b>I</b>
Others	0.26	<b>CA</b>
<b>Services</b>		
IT and ITeS	0.004	<b>I</b>
Tourism and Hospitality	0.85	<b>CA</b>

Source: Government of Rajasthan, DGCIS, IMaCS analysis. IT and ITeS numbers considered in total for Rajasthan as opposed to considering the grouping as IT, ITeS and electronics. Electronics is profiled in engineering in succeeding sections.

The three parameters of analyses are standalone and the same have to be integrated across a common base to arrive at the final classification of these parameters across the four quadrants. A weightage of 50% is assigned to India's contribution in world exports, and another 40% to Rajasthan's contribution in India's exports. The

remaining 10% weightage is for Rajasthan's relative position as compared to other Indian States. The final scores in each of the sectors provide a comprehensive analysis of Rajasthan's export performance. The sectors have been classified based on the score range specified in Table 14.

**Table 14: Integration of Export Performance Analyses**

Competitiveness	Overall	Weightage
<b>Competitive Advantage</b>	0.05 and above	India: World – 0.50 Rajasthan: India – 0.40 Rajasthan Index – 0.10 Overall – 1.00
<b>Potential</b>	greater than 0.02 but less than 0.05	
<b>Vulnerable</b>	greater than 0.01 but less than 0.02	
<b>Inconspicuous</b>	less than 0.01	

Source: IMaCS analysis

Assessment across the three parameters reveals that the State has competitive advantage in the sectors of dimensional stones, carpets, textiles and garments, and tourism and hospitality. Moreover, the State has export potential in the sectors of animal, agro and food products, metal, chemical and allied products (including tyres), gems and jewellery, and wool and wool products (Table 15).

**Qualitative Analyses**

As part of the analysis of cost competitiveness for Rajasthan, the following drivers of cost

competitiveness have been considered and specific impact of these drivers on various segments of merchandise and services has been evaluated.

- Factor endowments- Location; raw materials; other intrinsic advantages like historical presence of segments, market access, etc
- Human capital strength- Skill availability; education and skilling institutes availability
- Support systems- Policy thrust; infrastructure; utilities – power, water, etc; institutional structures; ease of doing business

**Table 15 : Competitiveness Position based on Export Performance Analyses**

Summary - 2016	Segments
<b>Competitive Advantage</b>	Dimensional Stones, Marble and Granite
	Carpets
	Textiles and Readymade Garments
	Tourism and Hospitality
<b>Potential</b>	Animal, Agro and Food Products
	Metal
	Chemical and Allied Products (including Tyres)
	Gems and Jewellery
	Wool and Wool products
<b>Vulnerable</b>	Engineering
	Plastics and Linoleum
	Leather and Leather Products
	Drugs and Pharmaceuticals
<b>Inconspicuous</b>	Minerals
	IT and ITeS

Source: IMaCS analysis.

Note: Although handicrafts is a competitive advantage segment, it is not reflected above due to unavailability of data in public domain for indexing with States

- Market access - Marketing; branding
- Value chain position of Rajasthan in key segments
- Key constraints for export growth

This analysis in conjunction with the individual segment analysis conducted in Chapter 2 and the quantitative analysis conducted in the previous section shall help sketch a holistic profile of the State's export competitiveness. The qualitative analysis shall help in determination of the final quadrant position of the sectors. Thereafter, possibilities of

transition to the competitive advantage quadrant can also be explored.

#### **Factor Advantages**

- Textile and Garments: Rajasthan is one of the most prominent locations for textile processing in India. In addition to being one of the largest producer and exporter of polyester viscose suiting - woven polyester fabric (mixed with viscose rayon), it is also emerging as an important state for production and export of readymade garments, cotton yarns, and nylon tyre cord fabrics.

From the districts perspective, Bhilwara is one of the major manufacturing destinations in India for suiting fabrics and yarns. Barmer is also being developed on similar lines as Bhilwara. The district of Jaipur is one of the largest centers for readymade garment processing in India, and a large number of units in Jaipur are catering only to the exports market. Pali, Balotra and Jodhpur are also among the prominent centers of India for processing of low weight, low cost fabrics.

- Gems and Jewellery: Rajasthan is famous for its gems and jewellery industry, and is the largest base for hand cutting of gems. The State is also known for silver smithy, lac bangles, kundan and minakari, enamelled gold jewellery, uncut diamonds and emerald-cutting. Being a traditional industry, it is well knit with Rajasthan's cultural heritage, and has strong linkages with other segments like tourism.
- Tourism and Hospitality: Rajasthan is famous for cultural and heritage tourism. It is popular for its historical palaces, forts, monuments, structures, lakes, mountains, sand dunes, desert, national parks and wildlife, arts and culture, fairs and festivals. Most preferred destinations for travel within Rajasthan include

Jaipur, Udaipur, Jodhpur, Bikaner and Jaisalmer. The tourism and hospitality industry in Rajasthan derives strength from the availability of attractive and diversified tourism products, accommodation, transport services, and wide range of shopping products.

- Handicrafts: Handicrafts is an integral part of Rajasthan's culture. There is strong presence of various types of handicrafts in the major districts of Rajasthan:
  - Textile Printing: Bagru, Chittroli, Sanganer, Jaipur, Jodhpur
  - Zari : Jaipur and Barmer
  - Stone Inlay: Rajasthan is known for the inlay on table tops, flooring, and wall decorative. In Jodhpur, inlay is done on yellow Jaisalmer stone
  - Dolls and toys: Bassi and Jodhpur
  - Leather Footwear: Jaipur and Jodhpur
  - Rugs and Durries: Jaipur for Rugs; Jaisalmer and Barmer for Durries
  - Carpets: Jaipur and Bikaner
  - Jewellery: Jaipur
- Carpets: Rajasthan is famous for its carpets and their designs. Trees and floral motifs are usually the designs on the carpets. These

carpets are well known for their durability and colour fastness. On account of the traditional skill sets, Rajasthan's carpet industry ranks third in the country after Uttar Pradesh and Jammu and Kashmir.

- Agro and Food Products: Agriculture and allied activities contribute significantly to the State's economy. The agro climatic conditions are favourable for cultivation of variety of crop. Jodhpur and Bikaner are the major areas for the production of food and agro products.

There exists substantial export potential in the areas of fresh vegetables, amla, guava, aloe vera, oil cake, oil seeds, etc. There are also opportunities for canning, dairying, frozen food, fruits and vegetable, milk and milk beverages, and soft drinks in the State. However, infrastructure needs to be built to support the same.

- Chemical and Allied Products (including Tyres): Several large companies have set up their base in Rajasthan. One of the India's leading tyre manufacturers, JK Tyres, has a production unit in Kankroli, 68 Km from Udaipur. BKT Tyres, known for tractor tyres and off-road tyres, also has a manufacturing unit in Bhiwadi. World's leading glass

manufacturing company Saint Gobain has established its largest manufacturing unit in Bhiwadi.

The mineral resources of the State also support the growth of chemical and allied industries. Rajasthan has about 130 million tons of quartz deposits which is the main raw material for glass production. The only resource challenge is the severe shortage of water in the State which impacts the growth of high water consuming industries.

- Engineering Products: In the auto sector, Rajasthan produces almost every part and component that goes into an automobile. There are over 100 auto component manufacturers in the State.

Specialised areas are being developed in the State for promoting production and exports from this sector. A 1167 acre industrial area mainly consisting of Japanese manufacturers has been developed in Neemrana on Delhi Jaipur Highway by RIICO. A special auto and engineering zone has also been developed in Pathredi Industrial Area and a similar zone is planned in Bhiwadi. In the electronics sector, Bhiwadi is being developed as an ESDM hub. Basic infrastructure like power sub stations, roads, drains, power lines, etc. is being

developed here. Forty hectare land has also been allotted to Electronic Industries Association of India (ELCINA) for setting up an Electronic Manufacturing Cluster (EMC) in this region. An additional 100 acres land has been allotted to ELCINA for setting up of EMC at Salarpur Khushkheda Extension by RIICO. Moreover, 125 acres of land at Kaladwas Extension, Udaipur has been reserved for developing dedicated zone for IT/ITeS and Electronics Industries. Mahindra World City, a multi-product SEZ spread over 3000 acres has also been established at Jaipur.

- Mineral Products: The State of Rajasthan accounts for nearly 11.5% of total mineral production of India<sup>6</sup>. Western Rajasthan has large deposits of hydrocarbons. Barmer has estimated reserves of 6.5-7.2 million barrels (900-1000 million tonnes of crude oil equivalent). Moreover, 25-30 billion cubic metre of natural gas reserves have also been discovered in Manohar Tiba, Tanot, Dandewala and Shahgarh in Jaisalmer basin. Additionally, 25 million tonnes of heavy oil reserves and 53 MT bitumen have been discovered in Bikaner-Nagaur Basin. Mining is a water

dependent industry and scarcity of water restricts the growth of this segment.

- Metals: Rajasthan has 210 million tonnes of identified lead-zinc ore reserves with 1.5% lead and zinc, and 639 million tonnes of copper ore reserves containing 0.8% to 1.2% copper. The State has immense potential for exports of base and noble metals, deposits of which extend over an area of 58,000 sq. Km. It covers Alwar in the North to Banswara and Dungarpur in the South and passes through the districts of Jhunjhunu, Jaipur, Ajmer, Bhilwara, Rajsamand, Sirohi and Udaipur.
- Wool and Woollen Products: As per the latest available data in 2012, Rajasthan accounted for 30% of the total wool production in the country. However, its share in exports remains low at the national level.
- Drugs and Pharmaceuticals: India is a leading source for production and exports of pharmaceuticals. The country is currently the largest exporter of generic drugs. Indian pharmaceutical companies are capable of meeting the regulations set aside by strict markets like the USA and the EU, and are focusing on increasing their export businesses.

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<sup>6</sup>Source: Indian Bureau of Mines, Ministry of mines, 2014

Rajasthan, in tandem, has also witnessed a rise in biotechnology industry. The SME sector is driving the growth in biotech and ancillary industries, supported by the rich bio-diversity in the State. Animal husbandry and genetic engineering are considered as potential sectors for economic development in Rajasthan and the government is keen on promoting industrial activities to capitalize on the inherent strengths over longer time horizon.

- Leather and Leather Products: Rajasthan has a rich livestock population, resulting in the State being one of the largest producers of leather. The leather craft goods in Rajasthan are made of camel hide, which is abundantly available in the State. The leather units in Rajasthan are household based and employ people for embroidery and stitching work. The city of Jodhpur is famous for leather jutties and that of Bikaner is known for its leather goods.

### ***Human Capital Strength***

- Textile and Garments: The sector is one of the largest sources of employment in Rajasthan. For supporting the sector through manpower training, 16 Apparel Training and Design Centre -

Smart Centres have been set up in the State.

- Gems and Jewellery: Rajasthan has the advantage of availability of manpower with traditional skills. However, these traditional skills need to be strengthened with upskilling measures related to processing and enhanced quality standards adherence to keep pace with international trends and expectations.

For training and skill upgradation, various institutes have been setup in the State which offer courses related to gems and jewellery. Some of these are:

- Indian Institute of Gems and Jewellery
  - Nakshatra Institute of Jewellery Designing
  - Indian Diamond Institute
- Tourism and Hospitality: In 2011, the services sector accounted for nearly 23% of the State's total employment. Within services, tourism and hospitality is an important segment from employment perspective.

There are various institutions in the State which provide tourism and hospitality related courses. However, skill levels and overall

ability to liaison with foreign tourists across the tourism value chain needs to be strengthened.

- Dimensional Stones: Rajasthan is a mineral rich State having 79 different types of minerals, most of which are commercially extracted. The State is the largest producer of many of the major minerals such as lead–zinc, calcite, gypsum, rock phosphate, and minor minerals like Marble, sandstone and serpentine (green marble), granite etc. The state also has huge reserves of lignite, crude oil, bitumen and natural gas.

Although not blessed with a large coastline, the infrastructure of the State is developed to support the requirement of the mining sector. The rural mining zones are connected to the processing centres and markets through broad-gauge railways and national highways. There are well equipped pipelines for transport of crude oil to refineries in Gujarat. In addition to the above, the Delhi-Mumbai Industrial Corridor is also expected to provide a boost to the transport infrastructure.

- Handicrafts: Close to 60% of the products manufactured by India's handicrafts sector are exported. Since these products

are demand driven, and tastes and preferences keep changing regularly, the skill development councils are entrusted to take necessary measures to enhance the skill set of artisans who cater to the international markets. In Rajasthan's case, Rajasthan Skill and Livelihoods Development Corporation handles the skill development related activities in this sector. The Indian Institute of Crafts and Design (IICD) is also located in Jaipur.

- Carpets: Some private institutes provide courses related to the carpets industry. Some schools also promote carpet making skills. Apart from these, carpet making skills are also handed down in a traditional manner.
- Agro and Food Products: The share of employment in primary sector of the State was 51% in 2011. There are various institutes in the State which provide courses related to the industry. These include:
  - Rajasthan Agricultural Research Institute
  - Swami Keshwan and Agriculture University
  - Rajasthan Agricultural University
  - Maharana Pratap University of Agriculture and Technology

- S K N University of Agriculture
- National Institute of Agriculture Management
- Chemical and Allied Products (including Tyres): The tyre and glass manufacturing industries employ skilled labourers and Rajasthan has many technical institutes to cater to such needs. However, there is a need to upgrade the technical skills of the manpower currently working across the sector.
- Engineering Products: Rajasthan has technical institutes which have an intake capacity of over 2 lakh. The State has 126 engineering colleges, 219 government sanctioned Industrial Training Institutes (ITIs) and 1597 private ITIs. In spite of this, availability of skilled manpower is an issue in Rajasthan and there is a scope for developing technical skill set in the labourers. The government is committed to build and develop trained human resources. To address the issue of unavailability of trained manpower for shop floor, an operations and tool room training centre is being planned over 10 acres in Bhiwadi.
- Mineral Products: Mining is a human capital intensive industry and requires specific skill set. There is a need to upgrade the available skill set in the State.

The Rajasthan Mineral Policy 2015 has special focus on skill development. A three-year Diploma Course in mining will be started in Chittorgarh. In existing ITIs, 6-month courses will be started for dumper operators, dozer operators and excavator operators. A short course structured by the Department of Mines and Geology, Rajasthan will be promoted through ITIs and other training institutions to improve skills of existing persons working in mines. Apart from this, various workshops, seminars and training sessions will also be conducted to improve the knowledge of the current manpower employed in the sector.

- Metals: The sector requires technically skilled manpower and although Rajasthan has various institutes which provide technical education, a significant gap exists in skill set required.
- IT, ITeS and Electronics: Select institutes providing courses related to IT and Electronics in the State are:
  - Rajasthan Institute of Engineering and Technology
  - Compucom Institute of Technology and Management

- Rajasthan Engineering College
- Various private institutes
- Wool and Woollen Products: The key institute available in the State for supplying human resources to the industry is Central Sheep and Wool Research Institute.
- Drugs and Pharmaceuticals: A National Institute of Pharmaceutical Education and Research (NIPER) has been proposed in the State of Rajasthan to enable easier access to qualifications for handling the basic work in a plant or an R&D set-up in India.
- Leather and Leather Products: Select institutes providing courses related to Leather and Leather products are:
  - Rajasthan Institute of Leather Technology
  - Footwear Design and Development Institute, amongst others
- Plastics and Linoleums: Central Institute of Plastics Engineering and Technology (CIPET) and other private institutes are present in the State for supplying human resources to the industry.

### **Support System**

- Textile and Garments:
  - Rajasthan Investment Promotion Scheme (RIPS): The scheme provides for 50% reimbursement of VAT on purchase of yarn, fibre, recycled fibre yarn, cotton and pet bottles for use in manufacture of goods within the State. There is also mechanism for interest subsidy for units in the textile sector. Enterprises making a minimum investment of Rs. 2.5 million in the textile sector can avail of 5% interest subsidy, while those making investment of more than Rs. 250 million can receive additional 1% interest subsidy. Apart from this, 7% interest subsidy is also provided for units in the technical textile sector<sup>7</sup>.
  - Rajasthan State Industrial Development and Investment Corporation (RIICO): For the loans from RIICO, a rebate of 2% is provided on the prevailing rate of interest. Additionally, a rebate of 1% is also given under the

<sup>7</sup>Resurgent Rajasthan Policy document, 2015

Incentive Scheme for Good Borrowers. The incentive under RIPS is valid for textile machinery covered under the Technology Upgradation Funds Scheme of the Government of India. This support is over and above the support from Government of India under which the maximum interest subsidy on term loan is at 6%. Hence, for the eligible textile units in Rajasthan, the net interest rate applicable on term loans is negligible<sup>8</sup>.

- In addition to the above, eight integrated textile parks of Rs. 40 crore each have been sanctioned in Rajasthan with the Central Government assistance and are at various stages of development. A special Power Loom Industrial Area is also being set up by RIICO in Pali district.
- Gems and Jewellery: Special gemstone export processing zones have been set up by Rajasthan Government for

promoting G&J exports. There is also an SEZ dedicated to gems and jewellery at Mahindra World City, Jaipur. There are also various associations and councils which promote gems and jewellery exports from the State viz. Gems and Jewellery Export Promotion Council, Jewellers Association, Jaipur, and Federation of Rajasthan Exporters, amongst others.

- Tourism and Hospitality:
  - Rajasthan Tourism Unit Policy 2015: The policy aims at strengthening the existing infrastructure, fostering infrastructure development, generating income and employment, and increasing the hotel room availability in order to match the needs of the tourists.
  - Rajasthan Investment Promotion Scheme 2014: The policy aims to promote investments and generate employment. Tourism and Hospitality industry is considered a priority sector under the scheme.

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<sup>8</sup>Resurgent Rajasthan Policy document, 2015

- There are various associations and councils to promote tourism and hospitality in the State, like
  - Federation of Hospitality and Tourism of Rajasthan
  - Rajasthan Tourism Development Corp
  - Hotel Association
  - Indian Heritage Hotel Association
  - Hotel and Restaurant Association of Rajasthan
- There are over 150 hotels in Rajasthan with more than 6,000 rooms. Of this, 36% fall under the heritage hotel category. Rajasthan Tourism Development Corporation also owns 'Palace on Wheels', along with Indian Railways.
- Dimensional Stones:
  - The State Mineral Policy (2015) focuses on achieving better productivity using cutting-edge technology and well equipped tools, along with reduction in wastage and better recycling.
  - Department of Mines and Geology has its Directorate at Udaipur and is involved in setting up a well-defined policy for the grant of mineral concessions.
- Department of Petroleum has its Directorate at Jaipur and is entrusted to control mineral concessions for petroleum and gas in the State.
- Rajasthan State Mines and Minerals Limited is a state-owned company involved in mining and marketing mineral rock phosphate, lignite, gypsum and limestone.
- CAPEXIL, a non-profit organization, was setup in March 1958 by the Ministry of Commerce, Government of India to promote export of chemicals and allied products from India. Although, there is no separate export promotion council for minerals/ dimensional stones, most of these items fall under the ambit of CAPEXIL which has a presence in the State.
- Handicrafts:
  - Export Promotion Council for Handicrafts (EPCH) is the apex government body and operates under the administrative control of the Ministry of Textiles, Government of India. There are regional offices of EPCH in Jaipur and Jodhpur to monitor the exports from Rajasthan.

- Handicrafts SEZ at Mahindra World City, Jaipur has been set up to offer the advantage of modern infrastructure and facilities, combined with access to raw material and abundant skilled labour to handicraft exporters.
- The Federation of Rajasthan Handicraft Exporters also actively engages with the Government bodies to ensure adequate market access for exports from Rajasthan.
- Carpets: There are various associations and councils for promotion of carpet exports from the State. These include:
  - Rajasthan Carpet Manufacturers and Exporters Association
  - Indian Carpet Export Promotion Council
  - Federation of Rajasthan Exporters (FORE)<sup>9</sup>
- Agro and Food Products:
  - Rajasthan Agro-Processing and Agri Marketing Promotion Scheme, 2015: The vision of the policy is to make Rajasthan the destination of choice for domestic and international investors in the processing sector.
  - There are various associations and councils which promote exports of agro and food products from the State. These include:
    - o Federation of Rajasthan Trade and Industry (FORTI)<sup>10</sup>
    - o Export Promotion Council for Agro and Processed Food
    - o Rajasthan State Agricultural Marketing Board
  - There are about 10 agri export zones and several units of food processing (over 10,000 units in micro and small scale and over 75 in medium and large scale) in the State. The State has an integrated food park having common facilities, research, infrastructure and an enabling industrial environment. Post-harvest infrastructure in Agro Food Parks at Kota, Jodhpur, Sriganganagar and Alwar have also been developed by RIICO for agro based industries. Another Food Park is being developed near Kishangarh in Ajmer district under the Scheme of Government of

<sup>9</sup>Carpets is one of the focus areas for the organization

<sup>10</sup>Food processing is one of the focus areas for the organization

India. Approvals have also been obtained for Cold Chain establishment in the State.

- Chemical and Allied Products (including Tyres): The Investment Promotion Policy 2014 mentions glass manufacturing as one of the 'thrust' industries. This is expected to attract major glass manufacturers for setting up production in the State.
- Department of Industries, RIICO and industry associations like CII, FICCI, FORTI, CHEMEXCIL (Basic Chemicals, Pharmaceuticals and Cosmetics EPC) and CAPEXIL (Chemical and Allied Products EPC), along with FIEO cater to the export promotion, marketing and branding of tyre and chemical products in the State.
- Engineering Products:
  - Owing to initiatives such as the Rajasthan Investment Promotion Scheme 2014, a total of Rs. 68 billion is to be invested in the auto sector with focus on passenger cars, tractors, two and three wheelers, commercial vehicle assembly units; forging, casting, gears and other component manufacturing. In the electronics hardware sector also a total of Rs. 12 billion is to be invested in products like air conditioners, microwaves, mobile phones etc.
  - The Department of Industries, Rajasthan is responsible for formulation of policies and providing support to this sector. Apart from this, CII, FICCI FORTI and FORE also play an important role in industry and trade policy formulation.
  - Engineering Export Promotion Council (EEPC) does not have any Rajasthan specific unit and its regional office in New Delhi caters to the entire northern region. Electronics and Computer Software Export Promotion Council (ESC) is the body responsible for export promotion activities in the electronics sector. It has its head office in Delhi which caters to the entire northern region. FIEO has a regional office in Rajasthan which caters to promotion of products across industries from Rajasthan.
- Mineral Products: Rajasthan has come up with a new Mineral Policy 2015 with the objective to infuse greater transparency and efficiency in granting mineral concessions by adopting e-governance. It aims to establish

a conducive framework of procedural, regulatory, legal and fiscal aspects with respect to investment regime. The objective also includes development of scientific mining techniques with due regard to safety, productivity, cost effectiveness, environmental and social sustainability. It also aims to promote R&D in association with private players in the State.

Department of Mines and Geology, Rajasthan, and Directorate of Petroleum, Rajasthan are government bodies associated with this sector. Federation of Mining Associations of Rajasthan (FMA) is the relevant industry association in this sector, and FORE, CAPEXIL and FIEO help in export promotion activities.

- Metals: Department of Industries, EEPC, FIEO and FORE are the stakeholders involved in this sector. The Investment Promotion Policy and the MSME Development Policy both will positively impact metal product manufacturers.
- IT, ITeS and Electronics:
  - The Rajasthan E-Governance IT/ITeS Policy 2015: The vision of the policy is to achieve good governance and facilitate inclusive growth; harness ICT and

evolve e-Governance for improvement in delivery of services; bridge the digital divide and evolve Digital Rajasthan.

- There are various associations and councils to promote IT and ITeS exports from the State.
  - Federation of Rajasthan Trade and Industry
  - Electronics Industry Association of India
  - Rajasthan Chamber of Commerce and Industries
- RIICO has developed IT parks in Jaipur, Kota, Udaipur and Jodhpur. Infrastructure with respect to road, power, plots, etc. in these parks is taken care by RIICO. Apart from these, Mahindra World City, an SEZ in Rajasthan, developed by Mahindra Group and RIICO, has a dedicated IT zone, providing telecom and broadband connectivity, satellite linkage, voice and data solutions. These infrastructure help attract investment into the IT sector. There are also plans of developing Electronics Park and Electronics Hardware Technology Park.

- Wool and Woollen Products:  
There are various associations and councils to promote wool and woollen products in the State which include:
  - Jaipur Wool and Namda Association
  - Garment Exporters Association of Rajasthan
- Drugs and Pharmaceuticals:  
As per RIPS 2014, sectoral policies have been defined for biotechnology and pharmaceutical sector.
- Leather and Leather Products:
  - Indian Leather Development Programme has been proposed by the Government to boost the leather industry in the State.
  - There are various associations and councils for promotion of exports of leather products from the State. These include:
    - Jawaja Leather Association
    - Rajasthan Chamber of Commerce and Industries
    - Rajasthan Craft Council of India
    - Council for Leather Exports (CLE)
- Federation of Rajasthan Handicraft Exporters (FORHEX)
- Federation of Rajasthan Trade and Industry
- There are about 20,000 unorganized units engaged in tanning in the State. There are also several household based artisans involved in making the traditional leather shoes called juttis made of tough leather.
- Plastics and Linoleums: Plastics and linoleum industry is a priority sector in the Rajasthan Investment Promotion Scheme. Plastics Manufacturers Association promotes the industry in the State.

### **Market Access**

- Textile and Garments: RIICO organizes fairs and buyer-seller meets to facilitate better market access for textile manufacturers from Rajasthan. For example, a four-day long exhibition, titled VASTRA -2013 was jointly organized by RIICO and Federation of Indian Chambers of Commerce and Industry in 2013 projecting India and specifically Rajasthan as a prominent sourcing hub and investment destination. There was participation from 202

exhibitors and 421 buyers from 66 countries.

- Gems and Jewellery: For marketing and branding of these products, exhibitions are organized at Jaipur. These facilitate establishment of national and international linkages.
- Tourism and Hospitality: The marketing and branding of tourism and hospitality industry is done by organizing fairs, events, shows and festivals. Liaisoning with the travel agents across the country and abroad is another form of marketing.

The planned E-Visa scheme will double the tourist inflow to India and the State. The State has launched a new logo and brand identity for the campaign. There is also a focus on strengthening the infrastructure.

- Dimensional Stones: Stones from Rajasthan such as white marble of Makhrana and Rajsamand, green marble of Udaipur, yellow marble of Jaisalmer, wood textured marble of Churu, sandstone, slatestone, kota stone and granite, are famous across the world. Appropriate branding activities can be undertaken to further promote these stones in global markets. Rajasthan

could also explore options for exporting granite and marble in processed form to maximize export earnings.

- Handicrafts:
  - Jodhpur Mega Cluster: Various marketing activities are being carried out under Comprehensive Handicrafts Cluster Development Scheme.
  - E-commerce: Snapdeal, an Indian online market place has partnered with Rajasthan Small Industries Corporation (RSIC) as an online channel to promote Rajasthan Handicrafts. Although this platform is only available domestically, this model can be explored for increasing market access internationally too.
  - Trade Fairs: A number of trade fairs / exhibitions are being held in India to showcase the domestic handicrafts. Support is also provided for exporters to attend international trade fairs/ exhibitions and increase market access.
  - Retail outlets: The marketing outlets of RSIC are planned to be extended either through opening new emporia or

- through franchises. RSIC has also undertaken a major renovation program for its existing retail outlets at Rajasthan and Delhi.
- A Handicraft-cum-Tourism Complex is being built at Jaipur by RSIC to provide a single show-window for the crafts of Rajasthan and other parts of India, along with tourism related facilities e.g. travel centres, exchange counters, etc.
  - Benchmark / Branding: In order to make Indian handicrafts globally competitive, RSIC is planning to develop a quality benchmarking in association with internationally experienced agencies. All exports and exporters are to be brought under this scheme by promoting and marketing them under the license of “Craftmark” issued by All India Artisans and Craftworkers Welfare Association (AIACA).
  - Carpets: The marketing and branding of carpets are largely done by organizing exhibitions which facilitate establishment of national and international linkages.
  - Agro and Food Products: The Rajasthan State Agricultural Marketing Board takes care of the agricultural marketing development activities. Also, they have taken up the task to export fruit and vegetable from the State.
 

Agro and food products industries hold a major share in the State’s exports. With the establishment of Mega Food Park and other support policies, there is huge potential for the sector to become competitive.
  - Chemicals and Allied Products (including Tyres): CAPEXIL, CHEMEXCIL along with FIEO hold exhibitions and trade fairs, and help in marketing and branding activities of these products.
  - Engineering Products: The major markets for Rajasthan’s exports of engineering products are the USA, the UK, the EU, Middle East, Africa and some ASEAN countries. Electronics and hardware products from the state are being exported to Africa (Benin, Tanzania, and Ghana), the USA, Canada, Australia etc. Major destinations for the exports of auto parts are South East Asia (Indonesia, Thailand), Japan, the UK, Brazil etc. Fully built automobiles are also

exported, mainly in the form of passenger cars with petrol engine of capacity 1000cc-1500cc (HS code -870322) and motorcycles with petrol engine of 50cc-250cc capacity (HS code -871120). The major export destinations for fully built automobiles are South Africa, Japan and SAARC nations (Nepal, Sri Lanka, and Bangladesh).

- Mineral Products: China and Bhutan are the major markets for minerals exports from Rajasthan. FORE and CAPEXIL organize various exhibitions and trade fairs for the promotion of minerals exports from Rajasthan.
- IT, ITeS and Electronics: The marketing strategy in case of Rajasthan is creating special zones and attracting investments from across the country and the world. Having a dedicated SEZ in the State, the industry has potential for growth and becoming competitive in the long run.
- Wool and Woollen Products: There is need for improvement in market access for these products.
- Leather and Leather Products: The major markets for leather and leather product exports from Rajasthan are largely

the developed countries. Spain, Germany, the USA, the Netherlands, and the UK were the top destinations in 2015-16. Leather bags, and suitcases (HS code 4202) were the top exported items followed by leather apparels (HS code 4203).

Artisans in the State lack market information, especially those pertaining to restrictions on selling leather products in certain areas. There are some exhibitions and fairs organized by CLE, FORHEX and others. However, there is need for more export promotion activities.

A major challenge for the sector is over dependence on the EU and the USA markets. Despite market diversification efforts of CLE, the current penetration of leather products in new markets like Japan, Russia, UAE, South Korea, Saudi Arabia, Australia etc. has been quite low.

#### ***Value Chain Position of Rajasthan***

- Textile and Garments: The size of the textile industry can be estimated by way of private final consumption expenditure on clothing and export value of textile products. The more advanced the

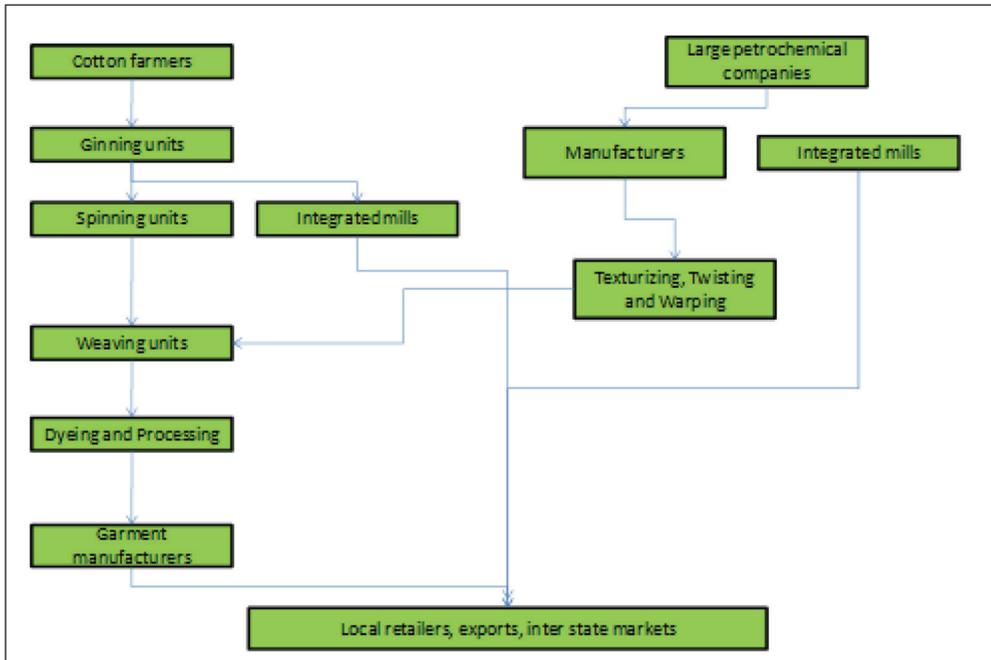
product in the value chain, greater is the export value attached to it. Figure 27 highlights the general value chain for textile processing and Rajasthan's position in the same:

Rajasthan has its presence across all stages of the textile value chain. The key challenge for the State is to diversify its export profile by making forays into emerging areas such as technical textiles, which find usage in sectors like

transportation, infrastructure, energy and electronics.

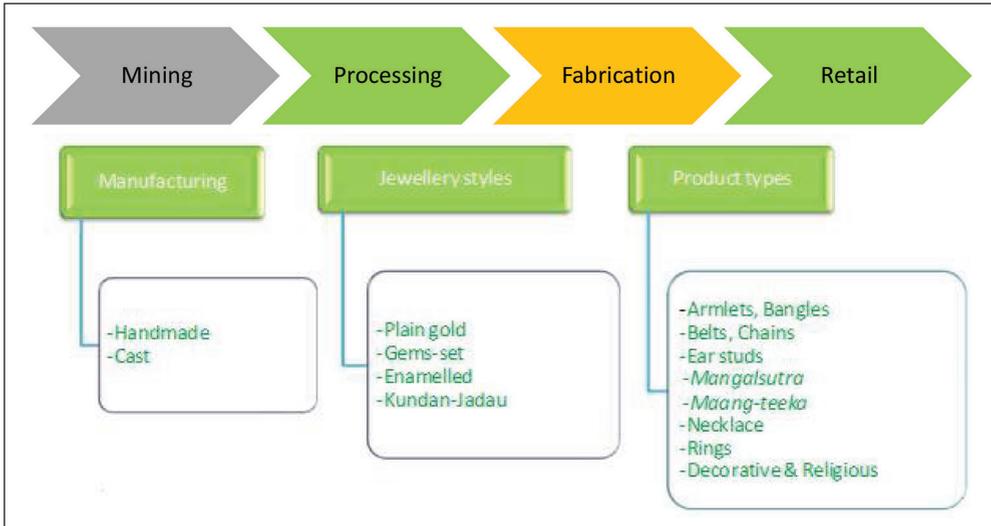
- Gems and Jewellery: G&J is a high value export segment for the State. Figure 28 highlights Rajasthan's presence in the value chain for gems and jewellery. Though this is a traditionally strong segment of exports, there needs to be more market linkages, customer trends reflection, processing and capacity building to boost the segment further.

**Figure 27 : Textile Value Chain – Rajasthan's Position**



Note: Stages marked in green indicate parts of value chain that currently have a significant presence in Rajasthan. Stages marked in yellow indicate parts of value chain which are potential areas for value addition in Rajasthan. Stages marked in grey are those where Rajasthan does not have a presence, and there is limited scope for improvement.

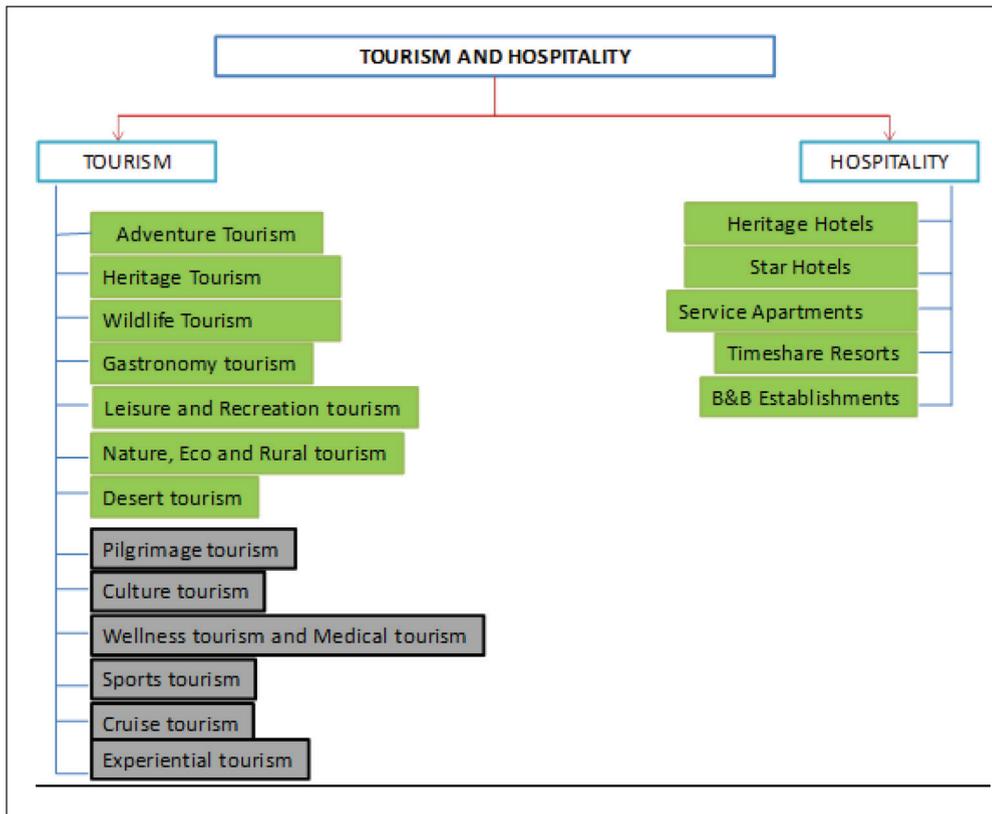
**Figure 28 : Gems and Jewellery Products Value Chain – Rajasthan’s Position**



Note: Stages marked in green indicate parts of value chain that currently have a significant presence in Rajasthan. Stages marked in yellow indicate parts of value chain which are potential areas for value addition in Rajasthan. Stages marked in grey are those where Rajasthan does not have a presence, and there is limited scope for improvement.

- Tourism and Hospitality:** Rajasthan has a significant presence across the value chain for tourism and hospitality industry (Figure 29). Through promotions, visibility drives and diversification of the offerings, the tourism and hospitality industry can attract tourists from countries other than the European Union.
- Dimensional Stones:** On account of the State’s factor endowments, dimensional stones have emerged as important export items. There is significant potential for value addition in the sector at the processing, finishing and screening stage. Mechanized mining and further processing can add significant value to the exports from the State. Figure 30 highlights the value chain for this segment and Rajasthan’s position in the same.
- Handicrafts:** Though this is a traditionally strong segment, there needs to be more market linkages, customer trends reflection and capacity building to boost the segment further. Figure 31 highlights the general value chain for handicrafts and Rajasthan’s position in the same.

**Figure 29 : Tourism and Hospitality Value Chain – Rajasthan’s Position**



Note: Stages marked in green indicate parts of value chain that currently have a significant presence in Rajasthan. Stages marked in yellow indicate parts of value chain which are potential areas for value addition in Rajasthan. Stages marked in grey are those where Rajasthan does not have a presence, and there is limited scope for improvement.

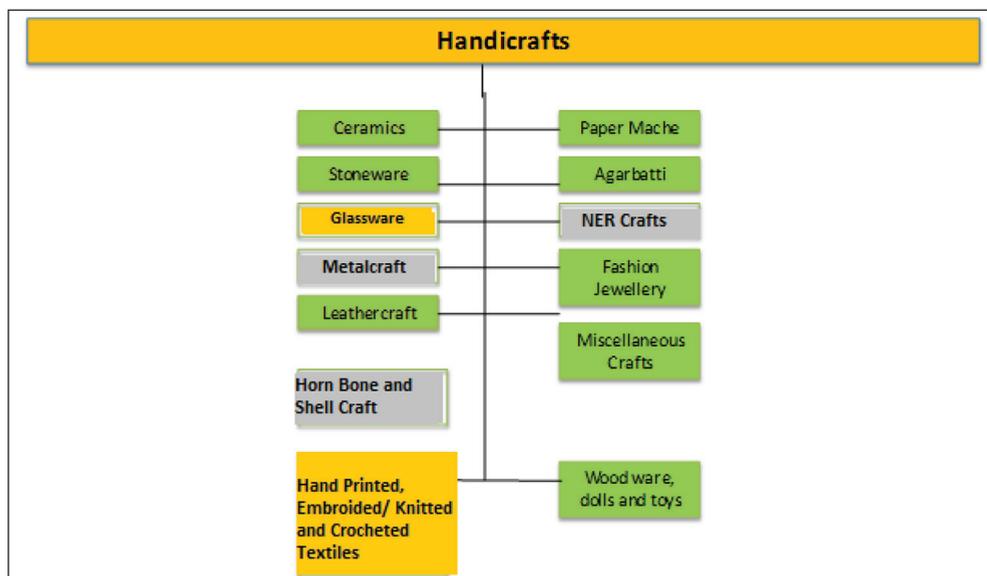
**Figure 30 : Dimensional Stones Value Chain – Rajasthan’s Position**



Note: Stages marked in green indicate parts of value chain that currently have a significant presence in Rajasthan. Stages marked in yellow indicate parts of value chain which are potential areas for value addition in Rajasthan. Stages marked in grey are those where Rajasthan does not have a presence, and there is limited scope for improvement.

- Carpets: India and Rajasthan are doing well in the carpet segment internationally. The carpet industry has thrived over the years due to the exquisite workmanship, vibrant colours and traditional designs. However, there needs to be a transition to contemporary designs, along with focus on R&D and technology.
- Agro and Food Products: There is substantial potential for value addition in the agro and food products sector. Greater processing of agro products can help enhance value of exports from the State. This has to be supported by good infrastructure, quality and know-how. Figure 32 highlights the general value chain for this segment and the areas where Rajasthan has scope for improvement.
- Chemicals and Allied Products (including Tyres): National Chemical Policy aims at increasing the chemical sector growth rate for India to 6% from the current 2%. Rajasthan can play an important role in achieving this through its contribution in the sectors of bulk organic and inorganic

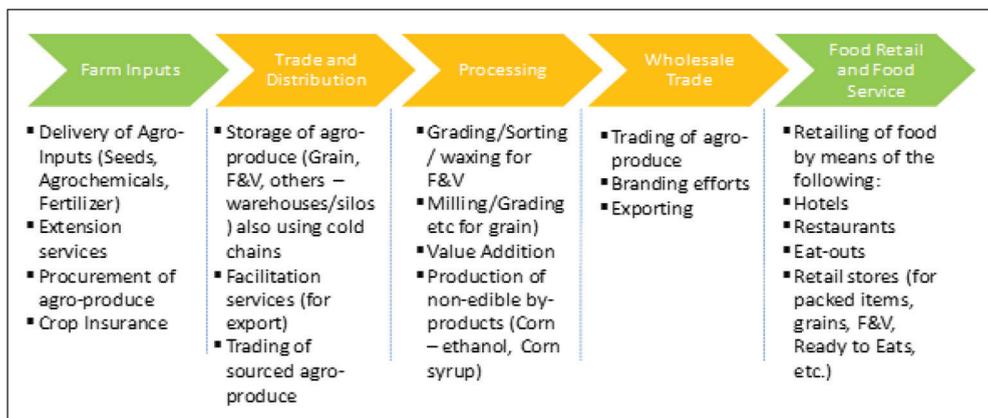
**Figure 31 : Handicrafts Products Value Chain – Rajasthan’s Position**



Note: 1. Stages marked in green indicate parts of value chain that currently have a significant presence in Rajasthan. Stages marked in yellow indicate parts of value chain which are potential areas for value addition in Rajasthan. Stages marked in grey are those where Rajasthan does not have a presence, and there is limited scope for improvement.

2. NER crafts refers to craft of the North Eastern region.

**Figure 32: Agro and Food Products Value Chain – Rajasthan’s Position**



Note: Stages marked in green indicate parts of value chain that currently have a significant presence in Rajasthan. Stages marked in yellow indicate parts of value chain which are potential areas for value addition in Rajasthan. Stages marked in grey are those where Rajasthan does not have a presence, and there is limited scope for improvement.

- chemicals, agrochemicals, dyestuffs and specialty chemicals (through investment in R&D). This may be done by capacity consolidation of small units and greater investments in Petroleum Chemical and Petrochemical Investment region.
- Engineering Products: There is considerable potential for exports of auto components from the State. Auto is a fast growing segment, especially in the areas of Bhiwadi and Neemrana. However, the area faces acute power shortage which has been affecting the industry. There is also a need to have better and wider roads as well as an ICD in the area. Infrastructure and overall support to industry need to be strengthened.
- IT, ITeS and Electronics: The key business segments in IT and ITeS are:
  - Project Oriented
    - IT Consulting
    - Systems Integration
    - Custom Application Development
    - Network Consulting and Integration
    - Software Testing
  - Outsourcing
    - Application Management
    - IT Outsourcing
    - Others
  - Support and Training
    - Software development and support
    - Hardware deployment and support

- IT education and training

The project oriented services and outsourced services segment have maximum export potential for the State. Though these business segments are present, these need to be strengthened over a longer time horizon.

### **Challenges**

Some of the recurrent and critical challenges across various sectors in Rajasthan include the following:

- Overall institutional structure needs to be streamlined and strengthened
- Inadequacy of appropriate skill sets is critical and has led to productivity constraints
- Lack of technological up gradation in several sectors has led to inefficient processes
- Quality of produce is a challenge and may limit ability of State to compete in international arena
- Infrastructure and know-how for processing and value addition has to be ramped up
- Branding of Rajasthan produce must be improved in select sectors like gems and jewellery, handicraft, etc

- Need for creating awareness regarding the methods of advertising, packaging and sale of goods
- Logistics have to be improved in the State to support export
- Adequate availability of power and water is a challenge which has to be strengthened

Apart from this, the State has some segment-specific challenges.

- Textile and Garments
  - Access to Finance: Lack of awareness about various government schemes and procedures to avail credit is a concern.
  - Issue of Raw Material Availability: Cotton is one of the most important raw material for the industry. Improper rains directly impact the industry by reducing the cotton harvest. Sourcing good quality raw materials is a challenge for the textile industry.
  - Lack of Quality Control: There is lack of comprehensive quality control measures for textile products. This results in inadequate adherence to international standards. As a result, exports from Rajasthan loose out in key

markets like the US and the EU to their competitors.

- **Lack of Product Diversification:** Textile industry in Rajasthan is highly dependent on cotton and wool as raw material. Lack of product diversification results in a narrow export basket with limited opportunities.
- **Non- Tariff Barriers (NTBs) to Trade:** NTBs pose a serious challenge to growth in exports. Trade Agreement negotiations look to minimize the impact of both tariff barriers and NTBs. Yet there is widespread use of NTBs as a tool to protect domestic market and restrict competition. A list of generic NTBs which affect all segments of exports is given in Annexure. Apart from these generic NTBs, there are also various sector-specific ones. Textile sector is one of the most affected sectors, especially on account of NTBs imposed by developed nations like the US and the EU. Some of them have been listed in Table 16.
- **High Import Duties:** High tariff rates on a few textile products exported from

India to the US, along with intense competition from Viet Nam and Bangladesh, and inadequate marketing of Rajasthan's textile products, pose a challenge for the sector.

- Gems and Jewellery

- **Raw Material Availability:** Bulk of the gemstone processing industry in Rajasthan is dependent on imports of raw materials from Africa. However, over time, imports from Africa have become expensive, and Governments in several countries have started imposing conditions for exports. For example, Tanzanite, which is found in abundance in Tanzania, was a key gemstone imported by India for value addition and exports. However, Government of Tanzania has now put restrictions on exports of the gemstone.
- **Inadequate Adoption of Changing Trends:** The Design Development Centre needs to be strengthened to provide feedback on design changes or innovations in the market, so that the manufacturers can adapt to the changing

**Table 16 : NTBs in Textiles and Apparels Segment**

Type of Non Tariff Barrier	Imposing Country	Segment	Example
Technical Barriers to Trade	The EU	Textile and Apparels	The E.U. recently came out with revised set of standards like REACH (Registration, Evaluation, Authorisation and Restriction of Chemical Substances) for textile and apparel sector
Technical Barriers to Trade	The EU	Textile and Apparels	The textile products being imported into the EU have to meet their labelling requirements containing information about the product – size and dimensions, fibres used, intended use of clothing, information about the producer and the importer
Technical Barriers to Trade	Japan	Textile and Apparels	The Ministry of Economy and International Trade and Industry requires specification regarding type of fabrics, washing instructions and details of manufacturer/ supplier
Technical Barriers to Trade	Japan	Textile and Apparels	The Japan Textile Federation has Voluntary Standards on Non-use of Harmful Substances for Textiles and Clothing regarding Azo Dyes
Technical Barriers to Trade	The USA	Textile and Apparels	The USA has labelling requirement for 95% of the apparel tariff lines, thus preventing import of uncertified, sub-standard and non-copyright products
Government Subsidies and Support	The USA	Textile and Apparels	Commodity Credit Corporation of the U.S. Department of Agriculture provides subsidies to producers of textiles and apparel. A monetary amount equivalent to what a person would have saved if the tariff-rate quotas on wool were still in effect is provided to the producers.
Government Subsidies and Support	The USA	Textile and Apparels	The USA also provides subsidies to producers and users of cotton involved in promotion of use of pima cotton in textiles and apparels; yarn spinners of pima cotton; and manufacturers who cut and sew cotton shirts who certify that they used imported cotton fabric

Source: IMAcS analysis

needs and remain relevant in the international market.

- **Fragmented and Unorganized Market:** The industry is unorganized and comprises several small players, due to which they have limited access to new technology and manufacturing processes.
- **Competition from Other Countries:** Italy, China, Namibia, Botswana and South Africa are major competitors for Rajasthan in the markets for cut and polished diamonds, and gold and studded jewellery. These countries possess comparative advantage in terms of infrastructure and technology.
- **Non-Tariff Barriers:** The G&J sector is also adversely affected by NTBs. Among the most important ones is the Labelling of Hazardous Art Materials Act in the USA, which requires a certified

toxicologist to evaluate art materials for their potential to cause chronic hazards (Table 17).

- Tourism and Hospitality
  - Most of the foreign tourist arrivals in Rajasthan are from the European nations. Other markets also need to be tapped.
- Dimensional Stones
  - **Lack of Modern Technology and Processes:** Most of the marble from the State is exported to other states for processing. The mining infrastructure is not up to date, and technology and processes also need major overhaul. Upgradation of processing tools is required in order to enhance productivity and reduce wastage.
  - **Water Scarcity:** There is significant requirement of water for cutting and

**Table 17: NTBs prevalent in Gems and Jewellery Segment**

Type of Non Tariff Barrier	Imposing Country	Segment	Example
Technical Barriers to Trade	The USA	Gems and Jewellery	Conform to the provisions of the Labelling of Hazardous Art Materials Act

Source: IMaCS analysis

polishing of stones. Ceramics manufacturing also needs large quantity of water. Rajasthan faces water scarcity which restricts the growth of the sector.

- Pollution and Waste Disposal Issues: The hazardous waste generated due to mining of stones is also a major concern. It creates health issues for workers and impacts mining activities. Steps for recycling of mining slurry and standard waste disposal methods need to be implemented.
- Handicrafts
  - Limited Design Capability: There is a lack of awareness about new trends and designs patterns among craftsmen. Hence there is a need to train the artists in designing activities. Tie ups with major designing institutions can enhance the value addition, as well as facilitate development of newer products.
  - Lack of Testing Infrastructure and Certification Standards: Inadequate material

testing and performance measurement techniques is a challenge for the industry. There is no single monitoring, regulatory and “assessing and certifying” body for all the skills required in the industry. Moreover, there are no formal mechanism to identify the quantum or type of manpower required for various segments.

- The CITES Issue: In a recent notice by CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), the sheesham wood family which is used for making wooden handicrafts has been classified as endangered species. As a result, its use for making handicrafts for export purpose would now be restricted and such products will attract additional duties. The exporters associations are already in discussions with the Ministry of Commerce to resolve the issue.
- Lack of Quality Assurance: Ensuring quality norms (ISO 9001:2008, ISO 14001) and strict adherence to National

Occupational Standards is also a challenge.

- Extinction of Traditional Crafts: With the ongoing mechanization and lack of skilled labour, certain traditional crafts are facing extinction.
- Carpets
  - Limited Design Capability: Lack of awareness regarding new trends and designs patterns among craftsmen is a key constraint for export growth.
  - Social Audit Norms: Social accountability has become one of the most important parameters for buyers in international markets, and adherence to social compliance is emerging as a pre-requisite for buying goods. Although child labour is an issue plaguing several industries in India, no other industry has received such extensive attention as the carpet industry. The use of child labour in hand knotted carpets in India is widely reported and documented. Being an export oriented industry, this issue adversely impacts the image of Indian carpet industry in key export markets.
- Long lead time to produce the goods is also a key constraint.
- Agro and Food Products
  - Inefficient Infrastructure: Inadequate cold storage network in Rajasthan renders the agro and food products unfit for exports.
  - Contamination of Products: Lack of awareness amongst farmers, labourers engaged in crop plucking activities and transporters leads to contamination of food items, and makes them unfit for exports.
  - Lack of Awareness among Farmers: There is lack of awareness regarding benefits of rotational cropping. There is also lack of awareness pertaining to organic products which fetch higher value in export market. The organic produce of the State is limited and farmers are mixing it with the normal produce to increase quantity. As a result, the organic produce is being sold at normal prices. Farmers also need to be informed

about various export market drivers.

- Non-Tariff Barriers to trade: NTBs significantly impact the agro and food sector. This still remains one of the most protected sectors for majority of the trading nations. Some of the key NTBs faced in this sector are listed in Table 18.
- Chemical and Allied Products (including Tyres)
  - Time taken by Government bodies to process refunds of VAT, duty drawbacks etc. impacts the working capital of exporters. This can have a negative impact on production and consequently on the export volumes.
- Various industries of the tyres and basic chemical sector fall under different export promotion councils. This results in an incoherent marketing effort
- Technical barriers related to regulatory and environmental clearances hamper the growth of exports from this segment. Some of the NTBs are listed in Table 19.
- Engineering Products
  - The auto hub in Neemrana and Bhiwadi face acute power shortages which

**Table 18 : NTBs prevalent in Agro, Animal and Food Product Segment**

Type of Non Tariff Barrier	Imposing Country	Segment	Example
Technical Barriers to Trade	The USA	Agro and Food	The Food Safety Modernisation Act (FSMA) makes it mandatory for importers to perform "supplier verification process" which requires FDA inspection of suppliers.
Technical Barriers to Trade	The USA	Agro and Food	Meet import requirements related to grade, size, quality and maturity
Import Licensing, Quotas Restrictions and Prohibitions	The USA	Agro and Food	Certain plant and products, chemicals face import licensing in the US

Source: IMAcS analysis

affects production. Road infrastructure in the area also needs to be upgraded. There is also a need for an ICD in these areas.

- There are no internationally recognized standards which are prevalent across the sub sectors. Moreover, there is lack of enforcement of relevant standards which results in poor quality products being exported.
- Engineering being a vast sector encompasses various industries which fall under different EPCs. Hence, there is not a single body focusing on the promotion activity of

the entire sector. Moreover, these export promotion councils (EEPC and ESC) do not have presence in Rajasthan which further dilutes the focus.

- Exogenous factors like NTBs especially in developed markets like the USA, the UK, Japan and the EU also deter expansion of exports. This is especially a constraint for the auto and auto parts sector. Some of the NTBs in the auto and auto parts sector are listed in Table 20.
- Mineral Products: The exports of mineral products are declining on account of falling global demand especially from China which was

**Table 19 : NTBs prevalent in Chemical Segment**

Type of Non Tariff Barrier	Imposing Country	Segment	Example
Technical Barriers to Trade	The EU	Chemical	Different Minimum Residue Levels (MRLS) required by the member countries for pesticides, drugs and other contaminants
Import Licensing, Quotas Restrictions and Prohibitions	The USA	Chemical	Certain chemicals face import licensing in the US
Procedural Complications and Documentation	The USA	Chemical	For pesticides, regulations require importers to submit to the U.S. Customs and Border Protection an Environmental Protection Agency's (EPA) Notice of Arrival that the EPA has reviewed and approved before the importation arrives in the US

Source: IMAcS analysis

the biggest export market, sharp decline in prices for minerals and petroleum products, and institutional and infrastructural inefficiencies.

The major challenges to minerals exports from Rajasthan inter alia include payment delays from overseas buyers and distributors, foreign government rules and regulations, inadequate export infrastructure, and complex documentation requirements. There is also a decline in number

of mining leases. Over a five year horizon, it shall be difficult for the sector to become competitive on account of these challenges.

## OVERALL ANALYSES

The export competitiveness of various segments as evinced by the export performance of the State is matched with those areas where factor advantages, human capital strength, support system, market access, and value chain position of

**Table 20 : NTBs prevalent in Auto and Auto Parts (Engineering) Segment**

Type of Non Tariff Barrier	Imposing Country	Segment	Example
Technical Barriers to Trade	China	Auto	Imported parts have to undergo more than one type of approval, thereby making the process cumbersome. Also, all auto components being imported have to be retested in Chinese laboratory for Chinese Compulsory Certification (CCC). Interior parts (dashboards, console, parts of engine compartment), safety glasses and spare parts and accessories for motor vehicles are required to be marked with CCC labels
Technical Barriers to Trade	South Korea	Auto	South Korea imposed burdensome conditions like vehicle width for certification, registration and marking requirements
Technical Barriers to Trade	The USA	Auto	Auto parts using specialty metals cannot be imported directly to the US since India is not a qualifying country from where specialty metal can be melted/ made into a product

Import Licensing, Quotas Restrictions and Prohibitions	Malaysia	Auto	A vehicle type-approval (VTA) process has prevented the import and sale of "sub-standard" vehicles, parts, and components since January 2009. In 2013, Malaysia imposed import licensing on some parts such as body for cabs and motor vehicles
Import Licensing, Quotas Restrictions and Prohibitions	Brazil	Auto	Brazil introduced non automatic import licenses on automobiles and auto parts.
Import Licensing, Quotas Restrictions and Prohibitions	Thailand	Auto	Import of used car bodies and motorcycle frames are prohibited and import licensing is employed for used diesel engines with specific capacity requirements
Discriminatory Taxes and Additional Cost	Japan	Auto	Discriminatory system of taxes while importing automobile and auto parts exists in Japan
Discriminatory Taxes and Additional Cost	EU	Auto	Few auto/ auto component items have been removed from preference list of GSP (higher rate since 2012) for imports from India to have better leverage while negotiating the EU - India FTA
Discriminatory Taxes and Additional Cost	Turkey	Auto	A special consumption tax of 37% to 130% is levied on all motor vehicles based on engine size
Discriminatory Taxes and Additional Cost	South Korea	Auto	High import duties and taxes on imported cars; high prices for replacement parts in foreign cars; and higher after-sales service fees for foreign manufactured cars
Government Subsidies and Support	China	Auto	China provides various forms of export-contingent Subsidies and Government support through a program for establishing "export bases" of automobile and automobile-parts industries in China

Government Subsidies and Support	Brazil	Auto	Brazil Development Bank (BNDES) announced loans/grants to auto component manufacturers to help develop technology, modernize equipment and infrastructure
Local Content Requirements	Thailand	Auto	The Eco-Car programme requires auto manufacturers to adhere to minimum local content requirements in purchase of capital goods to get advantage of tax exemptions
Local Content Requirements	Indonesia	Auto	Under local content requirements for automotive industry, certain manufacturing activities for some auto parts have to be conducted in Indonesia
Technology Transfer	China	Auto	Chinese Government rules also pressurize US automakers to transfer the latest electric car technology in exchange of green-energy subsidies and Government support in China

Source: IMaCS analysis

Rajasthan are suited for enabling export competitiveness. While there are obvious overlaps in the sectors derived from the analyses, there are some cases wherein the inherent advantages in the sectors do not translate into improvements in export performance. Figure 33 provides the final position of various sectors based on the qualitative and quantitative analyses undertaken as part of the study. The framework shows the position of exports segments at a point in time.

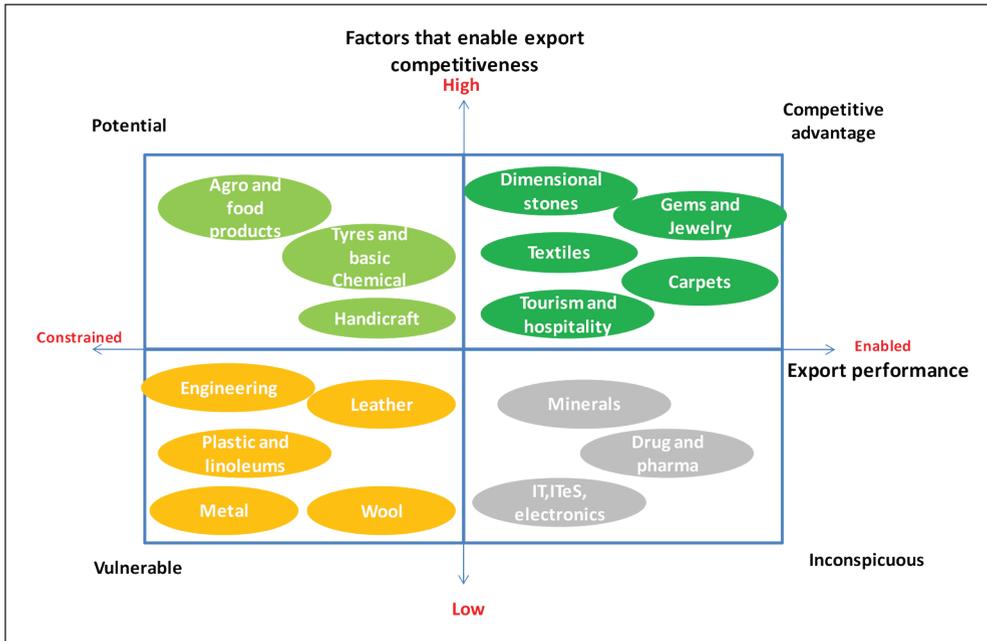
The quantitative analyses, segment level analyses and the ensuing competitiveness framework have set the foundation for defining the Vision and Mission for exports from Rajasthan. This will be followed by determining measurable State export targets and highlighting interventions which shall ensure that the same would be met. These targets would also highlight the expected competitive position of various segments in 2022.

**Table 21 : Recap on Segment Competitiveness**

Competitiveness Position	Export Performance	Factors enable Export Competitiveness
<b>Competitive Advantage</b>	Dimensional Stones, Marble and Granite	Dimensional Stones, Marble and Granite
	Textiles and Readymade garments	Gems and Jewellery
	Tourism and Hospitality	Handicrafts
	Wool and Wool Products	Carpets
		Tourism and Hospitality
		Textile and Readymade Garments
<b>Potential</b>	Animal, Agro and Food products	Animal, Agro and Food products
	Metal	Chemical and Allied Products (incl tyres)
	Chemical and Allied Products (including Tyres)	
	Gems and Jewellery	
<b>Vulnerable</b>	Engineering	Engineering
	Plastics and Linoleum	Plastics and Linoleum
	Leather and Leather Products	Leather and Leather Products
	Drugs and Pharmaceuticals	Metal
		Wool and Wool Products
<b>Inconspicuous</b>	Minerals	Minerals
	IT and ITeS	IT and ITeS
		Drug and Pharmaceuticals

Source: IMAcS analysis

**Figure 33: Export Competitiveness Framework for Rajasthan**



## 4. GROWTH STRATEGIES FOR EXPORTS FROM RAJASTHAN

Based on the competitiveness framework highlighted in the preceding chapter, a Vision and target has been drawn out for exports from Rajasthan. The export target along with the baseline scenario projections have been drilled down to the sectoral level. These shall be contingent on both internal and extraneous factors.

### VISION FOR EXPORTS FROM RAJASTHAN

“The Government of Rajasthan is committed to increase the export

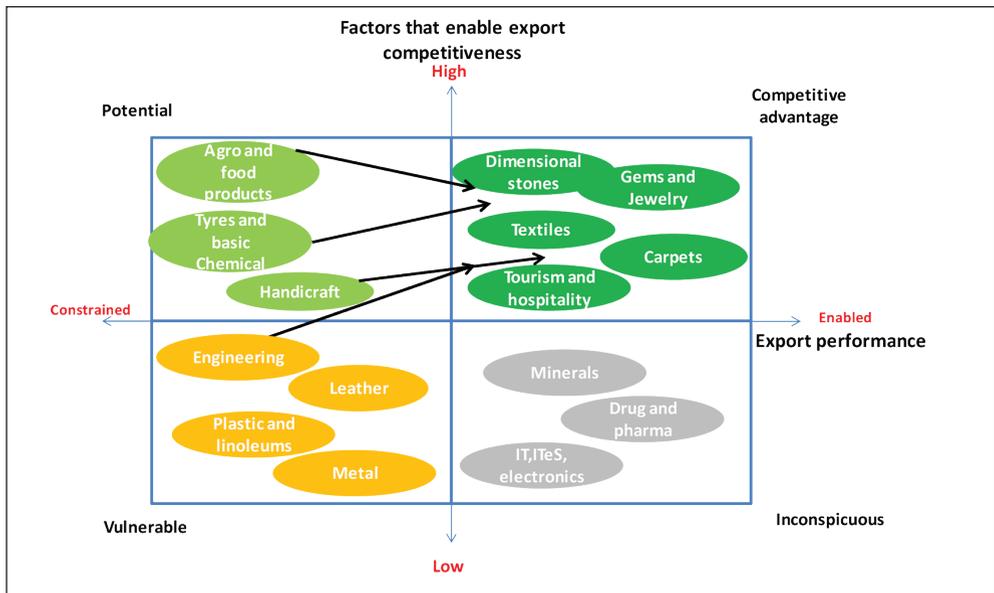
of merchandise and services to at least 2.5 times by 2022 through consolidation, diversification and increased value addition in primary, secondary and tertiary sectors, and generate impactful employment opportunities.”

### OBJECTIVES AND MISSION

The objective will be to achieve the vision for exports by meeting the set targets. The key dimensions include:

- Promote cooperation and unified approach to exports amongst

**Figure 34 : Export Competitiveness Framework for Rajasthan – 2022**



**Table 22 : Export Target for Rajasthan (Rs. Cr.)**

Segments	Rajasthan's Export 2016	Rajasthan's Export 2022 Baseline	Rajasthan's Export 2022 Target
Textile and Readymade Garments	6,392	11,104	12,131
Dimensional Stones Marble, Granites and Articles of Stone Mica etc	2,904	7,454	9,528
Gems and Jewellery	5,345	10,933	14,556
Engineering	4,754	10,806	12,943
Chemical and Allied Products (including Tyres)	4,145	7,585	10,599
Handicrafts	3,343	5,946	6,520
Carpet (Durries)	569	908	1,260
Animals Agro and Food Products	3,094	4,695	9,261
Metals -Ferrous and Non-Ferrous	1,777	3,451	6,903
Plastics and Linoleums	636	640	1,106
Drugs and Pharmaceuticals	398	847	937
Minerals - Mineral fuels, Mineral Oils and Products, Bituminous Substances, Mineral Waxes, Ores, Slags and Ash	31	982	1,965
Leather and Leather Products	230	240	419
Wool and Woollens	78	119	378
Others	68	68	68
Tourism	10,236	15,181	24,939
IT/ITES	2,305	4,184	8,369
<i>Rajasthan's Exports – Merchandise</i>	<i>33,764</i>	<i>65,779</i>	<i>88,571</i>
<i>Rajasthan's Exports – Services</i>	<i>12,541</i>	<i>19,366</i>	<i>33,308</i>
<b>Rajasthan Total Exports</b>	<b>46,305</b>	<b>85,145</b>	<b>1,21,879</b>

Source: IMAcS analysis. Data inputs from Ministry of Commerce, UN Comtrade, DGCIS, and Government of Rajasthan

the relevant departments and functions;

- Leverage and create appropriate infrastructure to achieve targets;
- Aim for global quality and standards that will ensure that the products and services from Rajasthan rank amongst the best;
- Build pipeline of skilled human resources who can contribute to export growth from the State.

### **TARGET FOR EXPORTS**

Based on the Vision for exports from Rajasthan, the export target for the State is projected at Rs. 1.2 lakh crore covering merchandise and services. The detailed break-up of segment-wise targets have been highlighted in Table 22.

The outlined target also implicitly hints at the movement of some sectors from the potential and vulnerable segment to the competitive advantage segment. These sectors include agro and food products, chemical and allied products (including tyres), and engineering products (Figure 35). These emerging segments, when holistically strengthened may make the transition.

### **POLICY INTERVENTIONS TO ACHIEVE TARGETS**

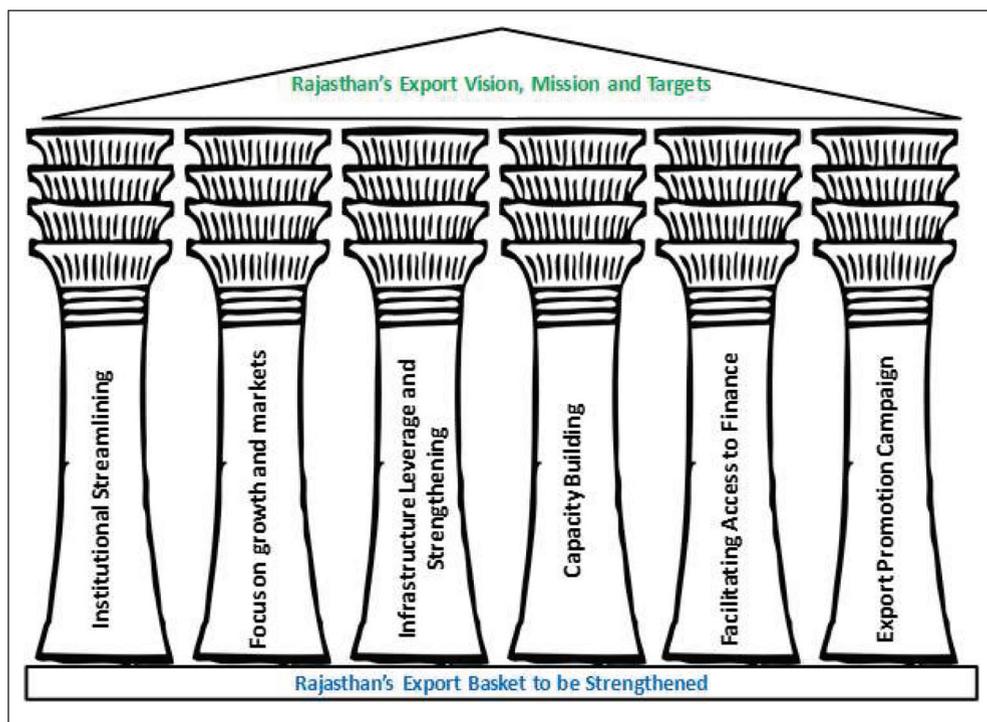
The export strategies for Rajasthan for meeting the targets and fulfilling the vision have been built on six

dimensions. These six dimensions are:

- Institutional Streamlining – This relates to tweaking the focus and enhancing the efficiency of institutions with a view to streamline their functions, which would lead to better export performance.
- Focus on Growth and Markets – This dimension adds an element of value addition and sharpens the export target growth with focus on specific markets.
- Infrastructure Leverage and Strengthening – This pertains to strategies that aim to leverage and use the existing infrastructure, and create new infrastructure to boost export performance.
- Capacity Building – This dimension outlines the need for capacity building of human resources to improve exports.
- Facilitating Access to Finance – This element outlines the need for easy access to financing options at competitive pricing for the exporters.
- Export Promotion Campaign – This intervention focuses on creating awareness about branding and promotion strategies.

The following section examines these individual interventions in detail. Competitive strategies have also been suggested for strengthening individual sectors.

**Figure 35 : Export Strengthening – 6-Pillared Measures for Rajasthan**



### **Institutional Streamlining**

The overall ecosystem in Rajasthan would need to be framed in a manner that propels the State to a higher export trajectory. Institutional structure comprising the associated State machineries would be pivotal in this process. In Rajasthan's context, the nodal bodies which shall ensure fulfilment of the outlined targets are:

- Rajasthan State Industrial Development and Investment Corporation: RIICO is the sole agency in the State that develops land for industrial growth. The major objectives of RIICO include site selection and acquisition

of land; financial assistance to small medium and large scale projects; equity participation in large projects on merit; technical consultancy for project identification and technical tie up; facilitation of government clearances; merchant banking and financial tie –ups; and extending incentives and concessions according to the policy of State Government and Department of Industries. Their focus is on setting up SEZs, International Zones (Japanese, Korean), Export Promotion Industrial Park and Agro Food Parks.

- Bureau of Investment Promotion (BIP): This is a nodal agency of the Government of Rajasthan which acts as an interface between industries and various Government departments to facilitate investments in various sectors of the State. BIP is in charge of investment promotion and single window clearances in the State. BIP also plays a significant role in developing investment policies for the State. The focus is on sectors like Infrastructure, IT and ITeS, Auto and Engineering, New and Renewable Source of Energy, Tourism, Healthcare, Agro and Food Processing, Minerals and Ceramics, Textiles, Defence Manufacturing, Electronic Hardware and MSME.
- Export Promotion Councils (EPC): EPCs are autonomous non-profit associations under the apex body Federation of Indian Export Organizations (FIEO). There are three EPCs with regional offices in Rajasthan to promote three of the top exports from Rajasthan viz. Apparel, Gems and Jewellery, and Handicrafts. These are Apparel Export Promotion Council, the Gem and Jewellery Export Promotion Council and Export Promotion Council for Handicrafts (Chapters in Jaipur, Jodhpur).
- In addition to these, there are State and cluster specific associations, some of which are:
  - Rajasthan Chamber of Commerce and Industry and its District wise chapters
  - Rajasthan Financial Corporation
  - Handmade in Rajasthan
  - Rajasthan Foundation
  - Rajasthan Khadi and Village Industries Board (RKVIB)
- Additionally, the Export Promotion Policy 2017 intends to incubate the Rajasthan Export Promotion Council (REPC) that shall be set-up with the participation of the Government, Exporters and Industry in order to provide a forum for exchange of views, sharing of information and removing hindrances and obstacles faced by exporters. The membership to the Council is proposed to be on an annual subscription basis for exporting units of the State.

The above mentioned entities shall together create a robust export ecosystem in the State. The above entities and activities present a variety of options for exporters seeking export support from the GoR. It is inevitable for some overlap to emerge in the overall export promotion programs, thereby adding complexity.

In an ideal scenario, the State, district and segment-level entities can all contribute unique competencies to boost the export performance. Although export promotion activities at the district level may comprise a relatively small share of overall institutional support, they represent an important gateway for companies. The way to institutional streamlining thus is not in looking at every entity in isolation but to collectively exploit their strengths. The institutional structure needs to be streamlined by strengthening REPC further.

### ***Rajasthan Export Promotion Council***

The REPC proposed under the Export Promotion Policy of Rajasthan has focus on four operational areas.

- Sectoral Division: This division will manage the delivery of export promotion products and services to the exporting sectors.
- Regional Division: This division will work with the trade and commerce related offices located in India and abroad through the Embassies / High Commissions, EPCs, Exim Bank and other chambers of commerce and industry.
- Marketing Division: This division will oversee all marketing activities, including trade

missions, trade shows, trade fairs and Buyers-Sellers meets.

- Information and Technology Division: This division will manage systems for providing information to stakeholders, including websites, skills and training modules.

The proposed REPC could operate under the Department of Industries, Government of Rajasthan with the objective of ensuring strong export performance for the State. The current structure of REPC proposed in the Export Policy of 2017 can be bolstered through:

- Focus on merchandise and services as discrete contributors to exports
- Focus on quality requirements during export
- Integrating technology and innovation
- Devising framework for impact assessment and ensuring continuous monitoring
- Focus on capacity building
- Enhancing role of IT division

In order to strengthen the institutional structure, the following new functions can be included as part of proposed REPC structure:

- Creation of independent and fully functional department focusing on merchandise and services

exports under the proposed REPC structure

- Focus on quality, technology and capacity building through creation of interlinked support functions
- Setting up of Programme Management Unit to review, monitor and assess the impact of export initiatives

The merchandise wing could enhance focus on merchandise export segments by coordinating with State bodies, exporters, etc, while the services wing could focus on services export. These wings could outline strategies for ensuring that targets are met in their respective areas. These shall also provide advisory services.

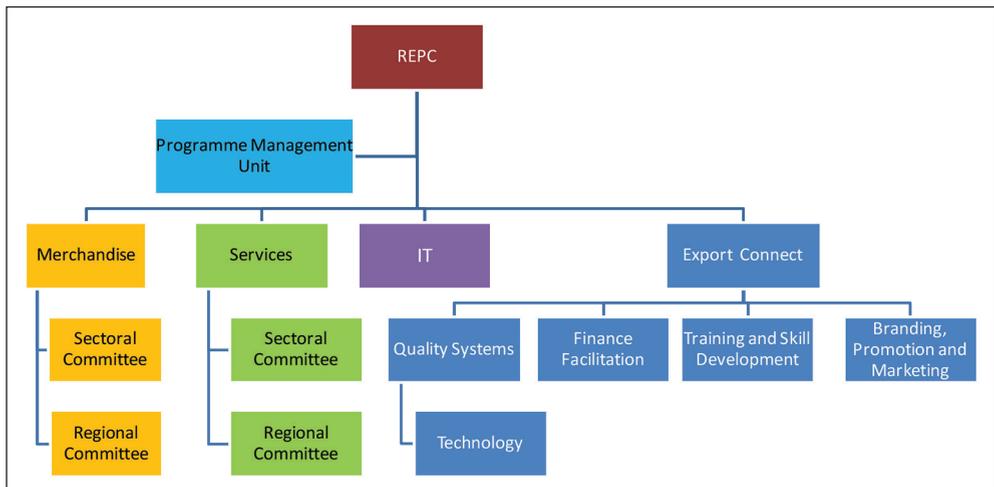
The Programme Management Unit (PMU) could integrate all the functions of the divisions of REPC. The PMU

will also undertake continuous monitoring of the export targets, their achievements and key constraints for the same on a half yearly schedule. The PMU could also strategize with the REPC and Department of Industries for liasoning with national export bodies on issues of importance.

The Export Connect wing could offer critical export landscape oriented support services like quality, technology, capacity building and export financing. The Export Connect wing could comprise of separate divisions for each of the support services.

- Quality Division
  - Enhance focus on quality control and inspection protocols

**Figure 36 : Proposed REPC Structure**



- Disseminate the key inputs to export stakeholders
- Technology Division
  - This shall have linkages with the quality division, and will include subject matter experts (who may also be industry leaders / retired personnel) who will work with export stakeholders for boosting the technology and innovation quotient
  - Provide pointers on value addition
  - Enhance global competitiveness of local products / services
- Capacity Building Division
  - Work with the National Skill Development Council (NSDC), Sector Skill Council and State level institutes to build export relevant skills in the State
- Finance Wing
  - Create / integrate export financing options in the State
  - Disseminate key inputs on how to avail the same with procedural details
- Branding, Promotion and Marketing

***Integrated Export Promotion Portal – Rajasthan State Export Connect Portal (Raj STEP)***

To supplement the institutional strengthening, a one stop information portal for exports could be established. This portal could enable exporters to improve their know-how and access information pertaining to markets, finance, export promotion programs, event details, etc. Advisory services can also be provided through the portal.

This portal can be directly administered and managed by the IT Division of REPC in consultation with various EPCs. Similar initiatives in other countries such as Singapore and EU have had a meaningful impact on trade.

In India, there are already several portals that aid in disseminating inputs related to export landscape. These include the Federation of Indian Export Organizations trade portal, Confederation of Indian Industry (CII) portal / informative web pages and EXIM Mitra, amongst others. Segment specific standards are also disseminated through various websites like FSSAI, etc.

The EXIM Mitra portal was launched by Exim Bank in January 2017 as a facility

to ascertain potential global markets and products, understand product standards across the globe, estimate freight cost, credit insurance, identify agencies providing handholding, amongst a host of other value added services. The platform has also devised an online format to enable a prospective exporter and importer to explore funding opportunities on the basis of the merits of the case. The portal also envisages financial inclusion by delivering information and facilitating financial services.

The RajStep portal may provide link to access EXIM Mitra, FIEO, CII, etc portals and supplement the information with key state specific details. Rajasthan's portal will be unique in terms of highlighting state specific export landscape details, providing support to exporters in local language, and highlighting state specific nodal details and links to key institutions.

### **Focus on Growth and Value Addition**

To expand the export basket, it is of utmost importance to first enhance

the competitiveness and then ensure its sustainability. One of the efficient ways to widen exports opportunities is to look at diversification based on value addition. There are two key methods of export diversification:

- Horizontal diversifications, which takes place within the same sector (primary, secondary or tertiary) by adding new products in the existing export baskets within the same sector.
- Vertical diversification, which entails a shift from the primary to the secondary or tertiary sector. It entails contriving further uses for existing products by means of increased value added activities such as processing, marketing or other services.

Key segment-wise strategies for Rajasthan have been outlined in Table 23 across the competitive segments based on the current markets and products, the emerging markets and products that may be catered to, and the value addition required.

**Table 23: Segment-Specific Strategies for Growth and Value Addition**

Name of Segment	Existing Markets		Emerging Markets (in addition to Current Markets)		Value Addition including Technology (Y/N) and Why
	Where	What is Exported	Where	What may be Exported	
Agro and Agro based	Vietnam, The USA, UAE, Malaysia, Iran, Bangladesh	Rice, Oil Seeds, Shrimps and Prawns, Frozen meat, Spices, Tea, Guar Gum, Sugar	The EU, Canada, South Korea, Australia, New Zealand	Ready to eat food, Processed food, Health and Wellness food products, Organic Food Products.  Organic market which is estimated at US\$ 90 billion in 2015 has witnessed a CAGR of around 12% for last 14 years. Dairy and dairy products, bakery/ confectionery products, ready meals and baby food are the largest categories in the organic packaged food market globally accounting for around 50% of the total organic packaged food market. Other products include snacks, oils, dressings, etc.	Yes. Although India has presence in these emerging product segments, technological, infrastructural and certification issues limit their export. With better infrastructure, technology and an acknowledged certification system, all of which add value, India could compete in these segments.  Rajasthan has limited presence in the processed segment. This is one area which can be tapped.  One of the global market leaders in this segment is Brazil which has grown from strength to strength on product diversification supported by proactive institutional structure.  <b>This will be a case of horizontal as well as vertical export diversification in the State.</b>

Dimensional Stones	China, The USA, Saudi Arabia, The UK, Sri Lanka, UAE	Granite – Crude, roughly trimmed, cut into slabs, polished, Sandstone, Marble	The EU, Egypt, South Africa, Russia, Canada	Worked and Processed Granite and Marble	<p>Yes. India has presence in these product segments but lack of cutting edge technology, required skill set, testing and standardization facilities and certification restrict competitiveness of Indian players in the market.</p> <p>The same story is reflected in the State.</p> <p>One of the global market leaders in this segment is Brazil which has grown from strength to strength on product value addition with processing built on natural reserves.</p> <p>As a part of MERCOSUR trade bloc, Brazil has access to various markets including the US and the EU where it enjoys preferential tariff rates. Marketing and promotion has also received substantial focus. Associação Brasileira da Indústria de Rochas Ornamentais (ABIROCHAS) is promoting Made in Brazil products by developing systematic programs supported by APEX Brazil – the Export and Investment Promotion Agency. The International Mining Exhibition and the Brazilian Mining Congress together conduct EXPOSIBRAM, one of the largest mining exhibitions in Latin America.</p> <p><b>This will be a case of horizontal export diversification in the State.</b></p>
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<p>Chemical and allied products (including tyres)</p>	<p>The USA, China, Germany, UAE, Brazil, Indonesia</p>	<p>Organic chemicals, p-xylene, pigments and preparations, benzene, insecticides</p>	<p>The EU, The UK and other developed economies</p>	<p>Specialty chemicals like agrochemicals, dyes and pigments, textile chemicals, personal care ingredients, construction chemicals etc.</p>	<p>Yes. India has a fragmented specialty chemicals industry with small scale manufacturers. Indian players can look for value addition in terms of R&amp;D. There is a need to build capabilities through product development and innovation. Development of processes/products which eliminate or reduce the use of hazardous substances, and focus towards green chemistry should be a priority. Similar story is echoed in Rajasthan. <b>This will be a case of horizontal export diversification in the State.</b></p>
<p>Engineering</p>	<p>USA, Italy, UK, Sri Lanka, France, African countries (Vehicles)</p>	<p>Compression-Ignition engine cars, parts of vehicles, Motorcycles, floating vessels, parts of aircrafts, parts of boilers and</p>	<p>Thailand, Indonesia, China, Japan, South Korea</p>	<p>Electronics and engineering plastics</p>	<p>Yes. Indian players have inadequate capacity and technological capabilities both in manufacturing and R&amp;D, which leads to limited production and low quality products. Rajasthan, with its emerging auto cluster, must look to build its capacity. <b>This will be a case of horizontal export diversification in the State.</b></p>

		<p>nuclear reactors, electrical machinery and parts</p>		<p>One of the global market leaders in this segment is China which has grown due to focus on policy thrust, R&amp;D, innovation and infrastructure boost.</p> <p>The industrial policy in China has high focus on R&amp;D in equipment manufacturing and automobile manufacturing, promotion of 'smart' equipment manufacturing, and indigenization of technologies for key auto parts. Several subsidy measures have also been undertaken. These include:</p> <ol style="list-style-type: none"> <li>1. Income tax breaks for companies with foreign investment, located in special development zones, or designated as having "high technology";</li> <li>2. Loans to 'encouraged' industries from government-owned banks;</li> <li>3. Rebates on value added tax and import duties for equipment purchases;</li> <li>4. Low-priced land for State Owned Enterprises (SOEs) and companies located in special development zones;</li> <li>5. The provision of goods and services at below-market prices by the government and SOEs, and</li> <li>6. Export rebates and Export credits to support equipment exports</li> </ol>
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<p>Gems and Jewellery</p>	<p>The UAE, The US, Russia, Singapore, Hong Kong, Latin America, China, Belgium, The UK, South Africa and Israel</p>	<p>Gold and silver jewellery, cut and polished diamonds, precious and semi precious gemstones and studded jewellery, handmade and machine made jewellery</p>	<p>Middle East. Strengthen the exports to Russia and China</p>	<p>Processed jewellery, coloured gems stones, pearls, synthetic stones, costume fashion jewellery, non gold jewellery and rough diamonds</p>	<p>Yes. Design development centre are required to match the latest trends and demand. There is need for improvement in technology and automation in line with competitors. Greater production and export promotion activities are also needed for expansion in export market.</p> <p><b>This will be a case of horizontal as well as vertical export diversification in the State.</b></p> <p>Shenzhen in China has done exceptionally well in gems and jewellery. As part of institutional strengthening, 'Shenzhen Gold and Jewellery Association' was established in 1990 to serve as a bridge between government and business owners. 'China Jewellery Index' (CJI) was also initiated in Shenzhen to provide comprehensive national-level database on China's gems and jewellery industry.</p> <p>Further, there has been focus on infrastructure development. Shuibei Jewellery Park is the centre of Shenzhen's gems and jewellery industry, encompassing more than 2,000 jewellery companies. Shuibei International Jewellery Trade Centre</p>
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Carpet	Exported to over 100 countries in the world. Top exporters are The US, Germany, The Netherlands, UAE, The UK, Australia, Belgium, Canada and Italy	Hand-made carpets: Hand-knotted woollen carpets, Tufted woollen carpets, Gabbe woollen carpets, Hand-made woollen durries, Staple/synthetic carpets, Chain stitch rugs, pure silk carpets	China, Latin America, Europe and Africa	Strengthen exports of pure silk carpets	opened in May 2004, became the first one-stop service for large and small wholesalers and retailers, hosting more than 100 local and international jewellery shops. The Royal land Jewellery Club was formed in 2009 to cater to the emerging high-end jewellery market demand.  For marketing and promotion, the jewellery in Shenzhen were named 'China Famous Brand' in 2005.
Yes. There is need for improvement in technology and automation. There is also need for improving the brand image and expanding export market.					

Handicrafts	The US, The EU, The UK, Russia, Turkey, UAE, Saudi Arabia, Japan, Germany, Canada, The Netherlands, Italy and France	Shawls and Art wares, Hand Printed Textiles and scarves, Art Metal wares, Imitation Jewelleries, Wood Wares, Zari and Zari goods, Embroidered and Crocheted Goods, Woollen goods, and Miscellaneous handicrafts	China, Brazil, Argentina, South Africa	Accessories and gifts, furniture, portable lamps, wall decor, lighting fixtures, etc. Products customized to international trends	Yes. Uplift the artisans through access to retail chains, fashion designers, etc.; improve the marketing techniques and infrastructure facilities; automation and modernized machines; reviving the extinct crafts; blend of multiple craft in a single product; participation in trade shows, exhibitions and fairs
Textile	The USA, UAE, China, The UK, Bangladesh, Germany, France, Spain, Italy and Turkey	Cotton-based yarns, fabrics, clothing, and household furnishings - Cotton textiles, Manmade textiles, Silk textiles, Wool and woollen textiles, Readymade	Japan, South Africa, South Korea	Apparel, Synthetic and blended products, manmade fibre and filament manufacturing, geo textile. Strengthen knitted and woven fabric, readymade garments and other value added and specialty fabrics.	Yes. Policy thrust and improvement in infrastructure in terms of design development, technology, automation and modernization. <b>This will be a case of horizontal export diversification in the State.</b> One of the global market leaders in this segment is China which has grown due to focus on technology, policy and product diversification.

	Tourism and hospitality	The USA, The UK, Bangladesh, Sri Lanka, Canada, Germany, France, Malaysia, and Japan	Medical tourism, Heritage tourism, Culture tourism, Pilgrimage tourism, Meetings, Incentives, Conferences, and Events tourism	Africa, Vietnam, Philippines, South Korea, Cambodia, Indonesia	Adventure tourism, Rural tourism and various other innovative tourism categories	Increase spending on advertising and marketing campaigns; develop quality tourism infrastructure at tourist destinations and circuits; increase use of technology. <b>This will be a case of horizontal export diversification in the State.</b>
garments, Jute, Coir and Handloom, knitted apparel, woven apparel, Made up articles						

## **Infrastructure leverage and strengthening**

This dimension focuses on leveraging and strengthening of existing infrastructure for tapping markets and diversifying the export basket. The State of Rajasthan has already invested in export oriented infrastructure. Some of the key infrastructure created in the State have been outlined below :

- Export Promotion Industrial Parks - Sitapura - Jaipur, Neemrana, Jodhpur
- ICDs - Jaipur, Jodhpur, Ajmer, Hindaun City
- Product specific industrial parks- Food Parks, Spices Parks, Textile Parks, Carpet Park (Under Implementation), Apparel park, Stone Park
- SEZs - 3 at Jaipur (2- Gems and Jewellery, 1 Multi Products)
- Special Investment Regions (SIRs) - 1. Khuskhera-Bhiwari-Neemrana 2. Jodhpur-Pali-Marwar Ind. Area
- National level Institutes - National Institute of Fashion Technology (NIFT) - Jodhpur, Footwear Design and Development Institute - Jodhpur, CIPET - Jaipur,

National Ayurveda Institute - Jaipur, Apparel Training and Design Centre - Jaipur, Central Wool Board - Jodhpur, Weavers Service Centre - Jaipur

- National Level R&D Centres - National Mustard Research institute, Bharatpur; Central Sheep and Wool Research Institute-Tonk; Camel Research Institute-Bikaner; National institute of Agriculture Marketing-Jaipur
- Export Promotion Councils / Institutes - AEPC, GJEPC, FIEO, Centre for Development of Stones
- National Level Labs - International Testing Lab- Gems and Jewellery- Jaipur
- National Test Centre, Ministry of MSME, GOI

To meet the export targets, it is essential to adopt a two pronged approach of leveraging the existing infrastructure, and simultaneously creating segment-specific need based infrastructure.

### ***Infrastructure Leverage***

It is important to analyze the scope for leveraging existing infrastructure so that the investment in creating needless infrastructure may be curtailed and appropriate investments may be planned. Some of the key

leverage measures are outlined below:

- The ICD at Jaipur is not adequately utilized and may be used more efficiently with proper procedures and time bound activities. As a result of the usage challenges at the ICD, currently, most of the exporters are exporting either through ports in Gujarat or Delhi.
- Leverage common infrastructure available in Export Promotion Industrial Park and product specific industrial parks to ensure that small units do not invest in replicating infrastructure but rather invest in boosting production and quality.
- Utilize the existing Testing Facilities, especially in gems and jewellery. Currently, for quality checks, gems and jewellery items are sent to Mumbai, which leads to considerable loss of time.
- The infrastructure developed by DMIC will include exports

infrastructure such as warehousing (in Jodhpur) and logistics that will connect it to freight corridor. These can be leveraged wherever possible.

### ***Infrastructure Strengthening***

Infrastructure strengthening has been explored on a segment level across two dimensions:

- Supply Driven Infrastructure – the infrastructure that is required by the exporters in the State like warehouse, cold chain, ICDs, etc.
- Demand Driven Infrastructure – the infrastructure that is required by the destination market like design institutes, quality labs, testing labs, etc.

The key requisite infrastructure has been outlined segment-wise in Table 24 and Table 25. This has been done for traditional segments, as well as non-traditional segments like engineering, chemical and allied products, etc.

**Table 24 : Strategy for Strengthening Supply Side Infrastructure – Segment-Wise**

Segments	Cold Chain Infrastructure	Warehouse	Inland Container Depots	Multimodal Logistics Hub	Processing Infrastructure / Technology	Utilities
Agro and Agro based	<ul style="list-style-type: none"> <li>Rajasthan is a major producer of spices, Jeera, Aloe vera, Guava, Keenu, Amla and vegetables, all of which can be made into export commodities commanding high export income.</li> <li>The production of aloe vera is very high and can be used to attract pharma companies.</li> <li>Rajasthan is the second largest producer of spices after Kerala.</li> <li>Jhalawar - Kota area has good production of mandarin</li> <li>However, to boost the export potential and ensure that the products do not get wasted, network of cold chain infrastructure and warehouses should be created.</li> </ul>	<p><b>Overall</b> ICDs are currently present in Jaipur, Jodhpur, Ajmer, Hindaun City. As stated prior, the ICDs have to be utilized effectively and efficiently.</p> <p><b>Engineering</b> Auto is a fast growing segment near Bhiwadi and Neemrana and has high prospect with the setting up of Japanese city and the upcoming Korean city. ICD in the area will give requisite fillip.</p>	<p>Multimodal transport (also known as combined transport) is the transportation of goods under a single contract, but performed with at least two different means of transport.</p> <p>A multi modal logistics hubs should be promoted around appropriate areas like Udaipur, Jodhpur, etc so as to provide easy and convenient transport facility to all industrialists and exporters in the region for transferring products to various ports and off takers in Gujarat, Maharashtra, Delhi, etc.</p>	<ul style="list-style-type: none"> <li>Fruits and vegetables: preserved, candied, glazed and crystallised fruits and vegetables; juices, jams, jellies, purees, soups, powders, dehydrated vegetables, flakes, shreds and ready-to-eat curries</li> <li>Beverages: fruit-based, cereal-based</li> <li>Dairy: liquid milk, curd, flavoured yoghurt, processed cheese, cottage cheese, ice cream, milk-based sweets.</li> </ul>	<p>Strong power, water, road and rail network needs to be improved in the State. This should lead to the overall logistics of the State being strengthened</p>	

Dimensional stones	Not applicable	Dimensional stones require quality storage facilities both on-site as well as post processing. The same need to be created.	<p><b>G&amp;J</b> Establish flatted SME-DTA units near SEZ for reducing logistics costs and ease of procurement of supplies and semi-processed items.</p> <p><b>Textile</b> There is requirement of Dry ports (ICDs) at Bhilwara and Udaipur.</p>		<ul style="list-style-type: none"> <li>• Grain processing – oil milling sector, rice, pulse milling and flour milling sectors</li> <li>• Food processing equipment: canning, dairy and food processing, specialty processing, packaging, frozen food / refrigeration and thermo-processing.</li> <li>• Spice paste, etc</li> </ul>	
					<ul style="list-style-type: none"> <li>• Need for mechanized mining.</li> <li>• Processing infrastructure to support cutting, followed by application of a finish, and conclude with a second cutting or shaping step</li> </ul>	

Chemical and Allied Products (including Tyres)	Not applicable	Not applicable			<ul style="list-style-type: none"> <li>Investment to ensure specialty chemicals</li> <li>Investment to herald PCPIR in Rajasthan</li> </ul>
Gems and Jewellery	Not applicable	Not applicable			<p>Establish a Gem bourse in Jaipur which has customs, banks, certification, dealing / auction rooms and other facilities in a flatted complex. It must be promoted as a global body</p>
Textile	Not applicable	Not applicable			<ul style="list-style-type: none"> <li>Entire value chain of synthetics</li> <li>Value added and specialty fabrics</li> <li>Fabric processing set-ups for all kind of natural and synthetic textiles</li> <li>Technical Textiles</li> <li>Apparel</li> </ul>

**Table 25 : Strategy for Strengthening Demand Side Infrastructure – Segment-Wise**

Segments	Design Labs	Quality Labs	Testing Centres
Agro and Agro based	Not applicable	Quality labs to test quality of product based on standards like FSSAI, USFDA, HACCP; etc	Not applicable
Dimensional Stones	To feed the processing centres for dimensional stones with international designs and usage location specific designs like kitchen countertops, bathroom vanity, floor, fireplaces, etc.	Quality labs to test quality of product based on international certifications like CE certification (Conformité Européene) when exported to the EU.	Marble Granite Testing laboratory to check various parameters like hardness, shock, modulus rapture, etc.
Gems and Jewellery	Indian Institute of Gems and Jewellery (IIGJ), Jaipur, a project of Gems and Jewellery Export Promotion Council with support from the Government of Rajasthan is an institute for the Gems and Jewellery sector with focus on design, technology and management. IIGJ may offer advisory services to key exporters in the sector.	Gem testing labs which certify the quality and grade of gemstones is required in the State.	National Level Labs and International Testing Lab for Gems and Jewellery exist in Jaipur. These must look at offering advisory services to key exporters.
Carpet	Carpet design institute needs to be established in the State. This may be based out of Jaipur but also provide services in other areas like Barmer, Ajmer, Bagru, etc.	Product specific quality labs must be established in the State.	There is a need to have a multi sector testing facility for key export oriented products like textile, handicrafts and carpets.
Handicrafts	Indian Institute of Crafts and Design (IICD) is based in Jaipur. IICD must look at offering advisory services to key exporters in the sector.		
Textile	In addition to NIFT, textile design labs need to be established in the State.		

Source: Primary interactions, Make in India, Secondary sources, IMaCS analysis

### **Standards, Regulations and Quality**

Various quality requirements need to be fulfilled by the exporters from the State. Many export destinations prescribe export specifications which need to be adhered to. It is the responsibility of stakeholders to ensure that these standards are met.

In India the Export Inspection Council (EIC) is responsible for Quality Control and Inspection. EIC is an advisory

body to the Central Government which notifies commodities which will be subject to quality control and/ or inspection prior to export, establishes quality standards for such notified commodities, and specifies the type of quality control and / or inspection to be applied to such commodities.

The EIC inspects products with specific requirements for each product category. Snapshot of the same is outlined in Table 26.

**Table 26 : Quality Requirements**

<b>Product</b>	<b>Brief Snapshot of Requirements</b>
Organic Products	Organic certification required.
Gems and Jewellery	As per DGFT Notification No-21/2002-07 dated 26 December 2002, no import/ export of rough diamonds shall be permitted unless the shipment is accompanied by Kimberley Process Certificate required under the procedure specified by the Gems and Jewellery Export Promotion Council.
Cereal	The exporters will inform 'region and place of cultivation' so as to confirm the origin of Rice through an affidavit. Export Inspection Agencies will attest the Certificate of Authenticity based on the verification / inspection and testing carried out by them.
Fishery and Aquaculture Products	All EU approved fish and fishery products establishments are required to obtain Health Certificate from EIC.
Dimensional stones	CE certification when exporting to the European Union.
Cotton	Term "cotton" is exclusively reserved for the fibre obtained from the bolls of the cotton plant (Gossypium). The term "cotton linen union" is reserved for products having a pure cotton warp and a pure flax weft, in which the percentage of flax accounts for a minimum 40% of the total weight of the fabric. In the textile's label, this name must be accompanied by the composition specification.
Wool	Terms "virgin wool" or "fleece wool" are only used for products composed exclusively of a fibre which: has not previously been part of a finished product, has not been subjected to any spinning and/or felting processes other than those required in the manufacture of the cloth, and has not been damaged by treatment or use.

Critical inputs on export including the documentation, time lines, cost involved, etc should be disseminated to concerned exporters through the portal by REPC. All the details can be hosted as one-click icon on portal. Online help / call centre system can also be established to clarify doubts. Advisory support can also be extended to first time exporters. One day training and awareness drive can also be conducted at the district industry centres.

### **Capacity Building**

One of the most important requirement to ensure that export growth targets for the State are met is to ensure the availability of skilled and productive human resources across various export segments. The capacity building initiatives can be undertaken across two areas:

- Adhering to the National Skill Framework
- Focused skill development through trade facilitation centres

### ***Adhering to National Skill Framework***

There is an evolving National Skill Framework in India that looks at standardizing all skill development initiatives in the country. These standards are set by the National

Occupational Standards (NOS) of the Sector Skill Councils (SSC).

Sector Skill Councils are set up as autonomous industry-led bodies by NSDC. They create Occupational Standards and Qualification Bodies, develop competency framework, conduct 'Train the Trainer' programs, organise skill gap studies, and assess and certify trainees on the curriculum aligned to the NOS<sup>12</sup>.

The NOS sets out measurable performance outcomes towards which an individual is expected to work in a given occupation or job role. These are valuable tools to be used as benchmarks for qualifications as well as for defining roles at work. The NOS are used to describe good practice in particular areas of work, set out a statement of competence, provide resource for a variety of workforce management and quality control tools, offer a framework for training and development, and form the basis of all qualification frameworks.

The NOS are national because they can be used in any part of the country where these functions are carried out. The NOS are occupational because they describe the performance required of an individual when carrying out functions in the workplace, i.e. in their occupation. NOS are standards because they are statements of

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<sup>12</sup>Source: Ministry of Skill Development and Entrepreneurship

effective performance which have been agreed by a representative sample of employers and other key stakeholders and approved by the India NOS Panel<sup>13</sup>.

The key export segments in Rajasthan require immediate skill development efforts, and it is imperative that the training delivered is adhered to the NOS that are developed by various SSCs. This is critical in the export context because the NOS are formed by incorporating requisite international and national standards of performance which are necessary when skilling for exports. These reflect industry demands, and are dynamic in nature which ensures that changing needs are also met.

### ***Focused Skill Development through Trade Facilitation Centres***

The objective of this intervention is to enhance the skill level of key personnel involved in export across the key segments. One of the models that can be adopted to ensure this is the Trade Specialization Model (TSM). The TSM will look at building the key skill in areas where they are inadequate, thereby enabling an appropriately skilled human resource pipeline – especially in domains where export is critical. For this purpose, Trade Specialization Centres (TSC) can initiate large scale skill building processes and adhere to the

standards and processes which are aligned to the NOS. This stability in the supply of personnel will pave the way for initiatives that can look at further strengthening of export performance. In fact, these centres may also leverage resources from the Centre for WTO Studies which conducts programmes on several export related focus areas like Trade Facilitation, Technology Transfer, Trade and Investment Policies, Agreement on Sanitary and Phytosanitary Measures, Anti-dumping, Safeguards, etc.

### **Fiscal Support**

The draft Export Promotion Policy 2017 has already outlined various measures for fiscal support, which includes:

- Reimbursement of freight @ Rs. 2000/- per container (TEU) subject to maximum Rs 1.50 lakh p.a. per exporting unit on exports through ICDs being run by Rajasthan State Small Scale Industries Corporation (RAJSICO).
- Reimbursement of handling charges on precious cargo of Gem and Jewellery export shipments effected from Air Cargo Complex (ACC) Jaipur Air Port up to Rs. 3000/- subject to the maximum of Rs 1.50 lakh per annum per unit, whichever is less on each shipment.

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<sup>13</sup>Source: NSDC

**Table 27 : Trade Specialization Model**

Trade Specialization Model	Brief
<b>Objective</b>	Build skills in key export priority areas of tourism and hospitality, textile, agro and agro based processing, gems and jewellery, handicrafts, carpets, dimensional stones, chemical and allied products (including tyres), and engineering
<b>Indicative Target Areas</b>	<p><b><u>Tourism and Hospitality</u></b></p> <ul style="list-style-type: none"> <li>• Guides</li> <li>• Housekeeping</li> <li>• Property maintenance</li> <li>• Tour planning</li> <li>• Overall language, communication and interpersonal skills</li> </ul> <p><b><u>Textile</u></b></p> <ul style="list-style-type: none"> <li>• Quality controls</li> <li>• Design</li> <li>• Production management</li> <li>• Finishing</li> </ul> <p><b><u>Agro and Agro based Processing</u></b></p> <ul style="list-style-type: none"> <li>• Formulation</li> <li>• International food standards</li> <li>• Quality control</li> <li>• Processing technologies</li> </ul> <p><b><u>Gems and Jewellery</u></b></p> <ul style="list-style-type: none"> <li>• Designing</li> <li>• Processing of gems</li> <li>• Finishing</li> <li>• Market scanning</li> <li>• Testing and Quality</li> <li>• Marketing</li> </ul> <p><b><u>Handicrafts and Carpets</u></b></p> <ul style="list-style-type: none"> <li>• Designing</li> <li>• Marketing</li> <li>• Design</li> <li>• Market scanning</li> <li>• Testing and Quality</li> </ul>

	<p><b><u>Chemical and Allied products (including Tyres)</u></b></p> <ul style="list-style-type: none"> <li>• Value added products production</li> <li>• International process control drivers</li> <li>• Treatment and cleaning</li> <li>• Research</li> <li>• Production</li> <li>• Quality control</li> </ul> <p><b><u>Engineering</u></b></p> <ul style="list-style-type: none"> <li>• OEM requirement elicitation</li> <li>• Designing</li> <li>• Prototyping</li> <li>• Testing</li> <li>• Production</li> <li>• Quality control</li> </ul> <p><b><u>Dimensional Stones</u></b></p> <ul style="list-style-type: none"> <li>• Processing</li> <li>• Finishing</li> <li>• Certifying requirements</li> <li>• Testing</li> <li>• Quality control</li> </ul> <p><b><u>General Export Areas</u></b></p> <ul style="list-style-type: none"> <li>• Export financing</li> <li>• Documentation</li> <li>• International finance management like hedging, options, etc</li> <li>• Standards involved</li> <li>• Quality aspects</li> <li>• Trade agreements and impact</li> <li>• Export markets and key features, etc</li> </ul>
Locations	Around the respective segment hubs
Process	<ul style="list-style-type: none"> <li>• Identify SSC partner institutes that can collaborate with the SSC to host the courses for the priority areas</li> <li>• SSC to identify the specialized equipment required for such trades and share with the institute</li> <li>• Such institutes, as well as equipment to be hosted, should be identified based on key demand areas</li> <li>• These institutes would serve as co-hubs where other institutes / ITIs in the region can make use of equipment for lab-work and modules requiring exposure to specialized equipment.</li> </ul>

	<ul style="list-style-type: none"> <li>Existing and new courses can continue to be offered in the institutes. Specific modules /lab-work requiring use of specialized equipment and courses can be offered by TSCs on a 'transfer of credit' basis. Thus, the student will continue to study at his institute of choice but be able to access specialized courses/ modules/equipment at TSC on a 'transfer of credit' basis</li> </ul>
Control	<ul style="list-style-type: none"> <li>All content and assessment to be in line with the respective SSC</li> </ul>
Anticipated impact	<ul style="list-style-type: none"> <li>Skilled HR available in priority areas</li> <li>Industry ready workforce</li> <li>Geographically endemic skills built</li> </ul>

- Reimbursement of premium paid for ECGC insurance.
- The Government will provide fund based support to the REPC, Exporters Associations of Rajasthan/EPCs/National level Export Associations for organizing international export trade fairs for the State units. The support will be upto 50% of the total cost subject to the maximum of Rs. 50 Lakh.
- Refund of Certification Charges: The government shall provide reimbursement to the exporting units of the State for expenditure incurred for compulsory markings such as Conformity European (CE), China Compulsory Certificates (CCC) upto the limit of 50% of expenses subject to a maximum of Rs. 2 Lakh per unit per annum.

### **Branding and Export Promotion Campaign**

With Resurgent Rajasthan - 2015, Rajasthan has forayed into campaigns to promote the State and its resources for investment purposes. This initiative is in tandem with the national level policy interventions such as Make in India and various such initiatives organized to attract investments into India and position India as a global destination for manufacturing and export.

For a land-locked State like Rajasthan it is difficult to attract investment in export units with alternatives aplenty for an investor to choose from. Established destinations such as Gujarat, Maharashtra, Tamil Nadu and Karnataka are riding on the advantages of infrastructure and policy support. Rajasthan needs to effectively brand itself and utilize the

resources to widen its prospects in the coming decade. Some of the key initiatives that may be incubated in addition to the ongoing initiatives are:

**E-commerce Leverage:** Online opportunities in traditionally strong sectors such as gems and jewellery, handicrafts, carpets, etc are yet to be tapped completely. While there are a significant number of fairs and exhibitions that the State artisans are exposed to, access through online platform can also be considered. The important step is to create awareness among SMEs regarding market place and customer relationship management. Effective marketing communications and brand building in this space is essential in utilizing the channel to the fullest. Connecting SMEs directly to their markets and customers can aid the players to adapt to the changing market dynamics quickly.

**Branding:** Brand-building and promotion is important for building long term export attractiveness and, can be seen in three dimensions - National Level initiatives, State Level initiatives, and Product level i.e. individual company brands. The Government of India has been running the “Make-in-India” brand promotion through the India Brand Equity Foundation, a PPP Initiative with CII, for the past few years now. IBEF seeks to act as a forum for brand vision development for India Inc as a

whole. Sector specific initiatives are currently missing except for a few sectors such as Auto, Textile and IT.

From the State’s perspective, the Government of Rajasthan in partnership with the Export Promotion Councils, Exim Bank and CII, could consider showcasing opportunities that exist in Rajasthan on the export front. Individual company brands also need to be created. The Government can encourage development of brands by providing incentives for brand-development expenditure with appropriate caps.

**Promotion of Clusters:** For segments like carpets, handicrafts, gems and jewellery, agro and food products, the entrepreneurs exist at the grass root level and at times work in silos. Cluster formation must be encouraged by REPC and EPCs so that common infrastructure may be created and utilized so that products could also get integrated. This can also help facilitate access to finance and usher formalization of segments.

**International Event Participation Fund:** Various market development assistance schemes are initiated on a state and national level where entrepreneurs get funding for participating in trade fairs. These initiatives have been proven to assist exporters for export promotion activities. State specific schemes for sectors such as Textile, Agro

and Food, Gem and Jewellery, and Handicrafts can be initiated by the local body of the respective EPCs in Rajasthan. The Draft Export Policy already sets the course for this. However, implementation needs to be made segment specific. The Export Promotion Councils in the State can also work with the Department of Commerce to develop their international campaign.

### **Facilitating Access to Finance: Support from Exim Bank**

Several flagship programmes of Exim Bank, such as Lines of Credit, and Buyer's Credit under NEIA (Box 9) can help propel medium and long term exports from the State, and create export opportunities for Indian companies.

#### **Box 9 :Exim Bank's Flagship Financing Programmes**

**Loans to Export Oriented Units:** The Bank offers a number of financing programmes for Export Oriented Units (EOUs), importers and for companies making overseas investments. The financing programmes cater to the term loan requirements of Indian exporters for financing their new project, expansion, modernization, purchase of equipment, R&D, overseas investments and also the working capital requirements.

**Lines of Credit:** The Government of India (GOI), in 2003-04, formulated the Indian Development and Economic Assistance Scheme [IDEAS – administered by the Department of Economic Affairs (DEA), Ministry of Finance (MOF)] with the objective of sharing India's development experience through capacity building and skills transfer, trade, and infrastructure development, by extending concessional Lines of Credit (LOCs) routed through Exim Bank, to developing partner countries, towards creating socio-economic benefits in the partner country. These LOCs facilitate import of project-related equipment and services from India by such partner countries on deferred credit terms.

**Project Exports:** Exim Bank plays a pivotal role in promoting and financing Indian companies in execution of projects. Towards this end, the Bank extends funded and non-funded facilities for overseas industrial turnkey projects, civil construction contracts, supplies as well as technical and consultancy service contracts. Indian companies have implemented numerous projects, spanning various sectors, with support from Exim Bank. These projects, in turn, facilitate and support infrastructure development in

host countries, thereby contributing to the overall development process in the region.

**Buyer's Credit under NEIA:** Exim Bank's strong emphasis on increasing project exports from India has been enhanced with the introduction of the Buyer's Credit under GOI's National Export Insurance Account (BC-NEIA) program. BC-NEIA is a unique financing mechanism that provides a safe mode of non-recourse financing option to Indian exporters and serves as an effective market entry tool to traditional as well as new markets in developing countries, which need deferred credit on medium or long term basis. At present, a positive list of 46 countries has been identified for which Indian exporters can avail of Buyer's Credit under NEIA. The list could be suitably expanded / modified on receipt of credit requests for projects from other countries, as has been done in the past.

### ***Lines of Credit (LOC)***

Benefits from the LOC program can accrue to exporters from Rajasthan in several key areas. For example, in the cement sector, Exim Bank has several operative LOCs in the countries of Djibouti, DR Congo, Central African Republic, and the Republic Of Congo. Exporters from the State can tap such opportunities. In fact, Rajasthan is best placed to take advantage of such opportunities as the State is among the top producers of cement in India.

Under the LOC program, several countries also seek capital goods imports, which can be supplied by the exporters from Rajasthan. Project exports from the State can also be enhanced through the LOC program. Project exports are vital conduits

for exporting high-value machinery, labour, expertise, and technology, especially since growth in global merchandise exports remained below 3% for the fourth consecutive year in 2016.

### ***Overseas Investment Finance (OIF)***

While the State has substantial technology-intensive exports, it will need to move up the ladder in terms of technology. Since investment in R&D has high gestation period, the OIF programme of the Bank can help companies get access to high technology by way of inorganic growth through the mergers and acquisition route overseas. Exporters in Rajasthan can also achieve vertical integration through their overseas investments which will improve their efficiency and margins.

### **Buyer's Credit under NEIA**

Enterprises involved in large scale export infrastructure projects in the energy, resources and port sectors continue to look at the Export Credit Agencies to supplement and facilitate finance. Exports of projects and services can be broadly categorized into (i) civil construction projects, (ii) turnkey projects, (iii) consultancy services, and (iv) supplies, primarily by way of capital goods and industrial manufactures.

As noted earlier, there is substantial potential for engineering exports from

the State. However, the scope of these exports is fairly limited as the developing countries are the major markets for India's project exports, and these countries demand medium-to long-term credits. With the BC-NEIA product, project exporters from the State can venture into new markets and help diversify the exports.

### **IMPACT ON EMPLOYMENT AND JOB CREATION**

The outlined export targets for the various segments have an impact on the employment potential of the State. The overall export employment

**Table 28 : Export Employment for Rajasthan: 2016-2022**

Rajasthan Export Segments	Export Employment 2016	Export Employment 2022	Incremental (2022 - 2016)
<b>Agri and Allied</b>	<b>808,597</b>	<b>1,255,120</b>	<b>446,524</b>
Textile and Readymade Garments	385,646	669,977	284,331
Chemical and Allied Products (incl Tyres)	66,047	119,835	53,788
Engineering	313,388	681,078	367,690
Drugs and Pharmaceuticals	23,314	47,957	24,642
Plastics, Linoleums and Rubber	58,934	68,156	9,222
Metals -Ferrous and Non-ferrous	100,401	122,818	22,417
Animals Agro and Food Products	200,689	311,514	110,825
Leather and Leather Products	17,039	19,272	2,233
Gem and Jewellery	56,634	112,737	56,103
Minerals and Dimensional Stones	315,257	758,183	442,926
Carpets, Handicrafts, Wool and Woollens	50,608	83,245	32,636
<b>Manufacturing</b>	<b>1,587,959</b>	<b>2,994,773</b>	<b>1,406,814</b>
Tourism	679,874	1,035,413	355,539
IT/ITES	30,000	54,062	24,062
<b>Services</b>	<b>709,874</b>	<b>1,089,475</b>	<b>379,601</b>
<b>Total</b>	<b>3,106,429</b>	<b>5,339,368</b>	<b>2,232,939</b>

Source: IMaCS analysis, Employment and Unemployment Survey, ASI, Exim Bank

in Rajasthan for 2016-2022 has been depicted in Table 28. The export employment for the State in 2016 was about 3.1 million and this is expected to increase to about 5.3 million by 2022, in line with the increased export targets envisaged for Rajasthan. The incremental employment generated during the said time period is about 2.2 million of which textiles, engineering and dimensional stones account for significant share in addition to significant contribution from emerging sectors.

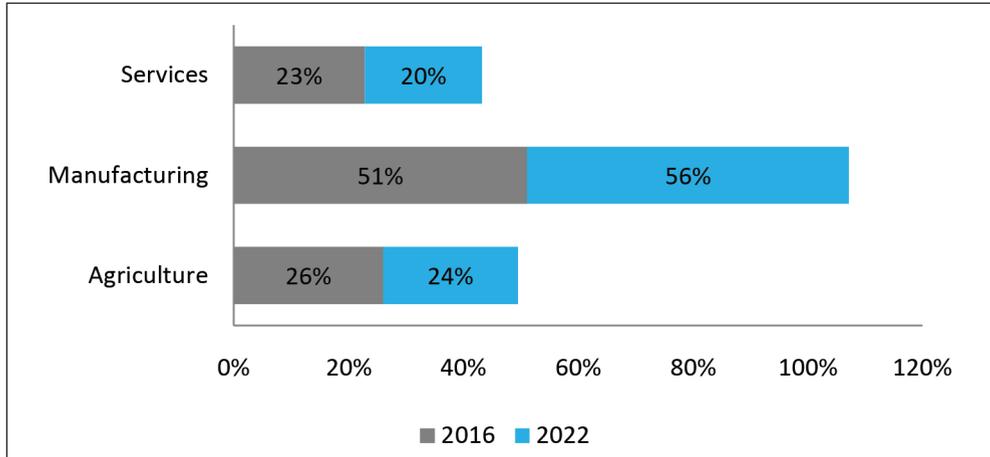
In terms of economic structure, around 75% of export employment will be contributed by Manufacturing and

Services(Figure37). In terms of sectors, the competitive segments of tourism, dimensional stones, engineering, textile, agro and gems and jewellery are expected to show significant increase in export employment from 2016 to 2022.

### ROLE OF STAKEHOLDERS

In the export landscape of the State, there are institutional as well as non-institutional stakeholders who contribute to the export performance. In light of the vision, targets and proposed interventions, the role of key stakeholders has been reiterated in Table 29.

**Figure 37 : Sectoral Export Employment 2016 and 2022**



Source: IMAcS analysis, Employment and Unemployment Survey, ASI, Exim Bank

**Table 29 : Role of Key Stakeholders**

Key Stakeholders	Key Role
Central Government – Ministry of Commerce, DGCIS, DGFT.	<ul style="list-style-type: none"> <li>• Formulate actionable trade policy and review the same periodically in light of various FTAs, NTBs, etc in consultation with the State Government.</li> <li>• Develop, Disseminate and Monitor State specific export data.</li> <li>• Provide assistance in capacity building of units through EPCs.</li> <li>• Collaborate with the State and identify specific export opportunity areas and strategies.</li> <li>• Provide assistance in mapping of export infrastructure and debottlenecking of supply related constraints.</li> </ul>
Department of Industries, State Government	<ul style="list-style-type: none"> <li>• Monitor the State's Performance on export targets.</li> <li>• Assess impact of various State/sector specific export policies.</li> <li>• Review of existing bi-lateral/multi-lateral agreements and its impact on Rajasthan. Provide regular update of this to the Ministry of Commerce and Industry.</li> <li>• Provide assistance in setting up of new centres / extension centres / campuses or branches of R&amp;D institutes having relevance for export.</li> </ul>
REPC	<ul style="list-style-type: none"> <li>• Liaison with the National Committee on Trade Facilitation(NCTF) on relevant issues.</li> <li>• Liaison with the Council for Trade and Development under the Ministry of Commerce to map out the States' infrastructure requirements and identify key gaps.</li> <li>• Offer single window clearance for fiscal support in consultation with RIICO and BIP.</li> <li>• Facilitate the establishment of State Level Export Advisory Committee.</li> <li>• Undertake regular impact assessment in consultation with the Deptt. Of Industries</li> <li>• Facilitate training in Export Documentation and Awareness.</li> <li>• Publish State Exporters' Directory.</li> <li>• Facilitate setting up of offices of different product specific EPCs in the State</li> <li>• Map export infrastructure in the State to actual requirements and identify gaps</li> <li>• Host and maintain export portal.</li> </ul>

RIICO	<ul style="list-style-type: none"> <li>• Technical consultancy for project identification and technical tie up</li> <li>• Facilitate government clearances</li> <li>• Merchant banking and financial tie-ups for access to finance</li> <li>• Provide support to REPC on all matters of export</li> <li>• Continue site selection and acquisition of land</li> </ul>
EPCs	<ul style="list-style-type: none"> <li>• Continue promotion and development of respective segments</li> <li>• Work closely with REPC on export related issues and concerns</li> <li>• Work closely with exporters in skill training</li> <li>• Promote clusters development with assistance from various Central and State specific initiatives</li> </ul>
Exporters	<ul style="list-style-type: none"> <li>• Share destination specific issues with REPC</li> <li>• Share export and import data for policy formulation</li> <li>• Participate in impact assessment studies</li> <li>• Enhance awareness on various schemes and fiscal benefits</li> </ul>
Skill providers	<ul style="list-style-type: none"> <li>• Leverage existing infrastructure for training</li> <li>• EPC to actively engage with NSDC for training and SSC for certification</li> <li>• Focus on formal assessments and certifications</li> </ul>

The above stakeholders must holistically enhance the export culture in Rajasthan, implement the suggested interventions and ensure

that the State's exports become more competitive at the national and international level.

## Generic NTBs prevalent in all Segments

Type of Non Tariff Barrier	Imposing Country	Segment	Example
Technical Barriers to Trade	Japan	All segments	Correct packing, marking, and labelling are critical for customs clearance in Japan. All imported products and shipping documents are required to show metric weights and measures.
Procedural Complications and Documentation	The USA	All segments	Most of the States of America have enacted their own administrative procedures which govern the adoption of technical regulations and conformity, complicating the procedures while exporting to the USA
Procedural Complications and Documentation	The EU	All segments	New GSP rule requires exporters to self-certify the origin of content while exporting to the EU. Any error can lead to disqualification of benefits
IPR requirements	The EU	All segments	Strict intellectual property regime would impact certain high-technology items, where we are aspiring to be an export base, since technology transfer would be impacted
IPR requirements	Japan	All segments	Japan maintains a strong intellectual property rights (IPR) regime. Companies doing business in Japan are encouraged to be clear about all rights and obligations with respect to IPR in any trading or licensing agreements.
IPR requirements	The USA	All segments	USA protects a varied list of products under its IPR regime ranging from industrial designs, circuit designs, trademarks etc. This results in import user fees and excessive invoicing requirements on importers, which add to the costs in a similar way to tariffs - e.g.: Merchandise Processing Fee (MPF)

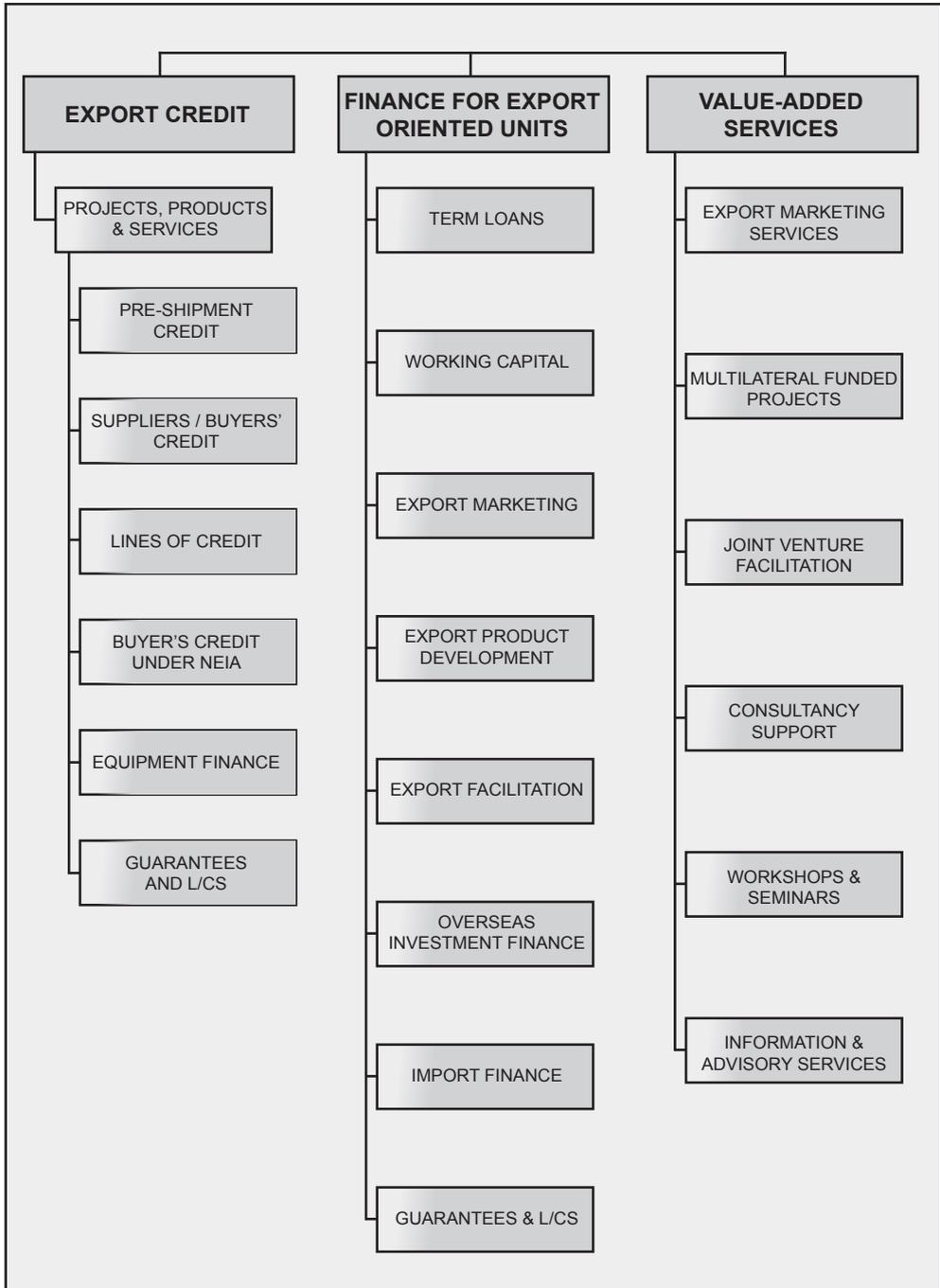
Source: IMAcS analysis

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